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Introduction

The present dissertation has the objective of presenting all historical events and cultural elements which have contributed to the formation of a distinct approach to management which developed in Japan, to describe its distinguishing features and recent changes. Japan stands out from all countries of Asia as the first one which grew quickly to an industrial power (Fukuda, 1986). Japanese management enabled a country, which has a surface not even 80.000 km² larger than that of Italy and a population which is more than twice as much, to prosper. I Japan is a country which is poor of physical resources, but however its exports exceed its imports by 62 billion dollars and its GNP continues to grow due to its dominance in several industries² (Tanner Pascale and Athos, 1981, pg. 20). According to Tanner Pascale and Athos "a major reason for the superiority of the Japanese is their managerial skill" (ibid., pg.21). Thus, the Japanese management must have some peculiarities which gave Japanese companies competitive advantages over those in other countries (Jackson and Tomioka, 2004, pg. 12). Japanese management practices have been studied a lot during the 1970s and 1980s which was in fact the period during which Japanese companies have been most successful (Firkola, 2006). Various researchers concluded that other countries could learn something from the Japanese model (Vogel 1979, Ouchi, 1981). In the 1990s these same practices were seen mainly responsible for the severe economic downturn in Japan of that time. Management practices varied continuously in Japan due to the ever-changing environment and society and they still continue to adjust (Firkola, 2006).

The first chapter illustrates on one hand the unique socio - cultural elements which characterize Japan and on the other hand its historical background which were both crucial for the development of the Japanese style management. In the history review the evolution of the structure and organization of companies is emphasized, stating the causes and distinctiveness of this transformation.

The second chapter is concerned with the Japanese management approach. Firstly, the three pillars of Japanese management are clarified, underlining their reasons of existence and differences throughout Japanese companies. Secondly, the typical Japanese decision-making process is analysed. Afterwards management strategies and techniques are discussed. Then the role of women in the Japanese culture and workplace is exposed. Lastly, recent changes and the probable future of Japanese management is examined.

¹ https://ugeo.urbistat.com/AdminStat/it/it/demografia/dati-sintesi/italia/380/1 http://www.deagostinigeografia.it/wing/schedapaese.jsp?idpaese=071#

² https://oec.world/it/profile/country/jpn/

1. History and culture

Two contradicting viewpoints concerning the influence of culture and history on Japanese management practices exist. According to the first one the Japanese management is a product of the last 70 years and has nothing to do with historical events and culture of the years before WW II (Kono, 1988). According to this view changes in technology will cause Japanese management to evolve and become similar to Western management as Japan enters in the same phase of industrial development as Western countries (Cool and Lengnick-Hall, 1985). The second theory instead states that culture and history heavenly influenced the Japanese management system. The evidence suggests that probably a mix of both theories is true. Some management practices have surely been highly influenced by both history and culture, others instead have been developed to respond to necessities and changes characterizing the time after WW II (Firkola, 2006).

The Japanese management approach has been heavily influenced by cultural aspects and historical occurrences, including rice farming, Confucianism, Buddhism and Bushido (Sagi, 2015). Culture determines the behaviour of people in distinct circumstances and ambiences. Hence it is an exceptionally complicated concept (Williams, 1985). A definition of culture can be given by stressing the norms and values by which members of a certain group are characterized (Giddens, 1989, pg.31). Whereby values are more deeply anchored than behavioural norms, thus norms are more flexible in responding to imminent circumstances. Nevertheless, also values tend to change, being influenced by personal background and attitude, time, location, and situation (Jackson and Tomioka, 2004, pg. 21). Norms determine what is seen as right and what is condemned as wrong by the members of a group. They can be formal, thus be laid down in writing, or instead informal social norms (Trompenaars and Hampten-Turner, 1998, pg. 21-22). It is possible to adjust norms without having to change values. Also, values can be adapted but this usually takes much more time (Jackson and Tomioka, 2004, pg. 23). In addition, a culture differentiates itself from others by the artefacts which are used or eventually also created by the group. These artefacts, of which language is part, influence personal choices of group members (Giddens, 1989).

The 5-dimension model of Hofstede can be applied to analyse Japanese management from a cultural perspective. The five dimensions are "power distance; uncertainty avoidance; individualism versus collectivism; masculinity versus femininity; and long-term orientation versus short-term orientation" (Jackson and Tomioka, 2004, pg. 27).

Japanese managers are characterized more by values oriented towards collectivism rather than individualism (Hofstede, 1980, 1991/94, 2001). In fact, it is an important concern of Japanese managers to take actions which have previously be approved by the group. Taking an action which is not accepted collectively, meaning by the group, would cause the "loss of face" (Jackson and Tomioka, 2004, pg. 29-30). However, Matsumoto (2002) argues that this presumed collectivism of the Japanese is just a stereotype and that Americans sometimes display more "collectivist values" than the Japanese. Japanese managers are also risk averse, thus not loving ambiguity (Hofstede, 1980, 1991/94, 2001). This is one of the reasons why the decision-making process in Japan takes much longer than in Western countries (Mendenhall and Oddou, 1986). Before committing to a decision, the Japanese want to be sure to eliminate as much risk as possible thus reducing ambiguity by studying the circumstances very well. Japanese managers honour hierarchy and authority (Hofstede, 1980, 1991/94, 2001). This is connected to Confucian tradition by which authority is automatically attributed to male and senior members of a group (Jackson and Tomioka, 2004, pg. 32). In most Asian cultures, members with a higher management position or which are older are perceived by the younger members as more knowledgeable and therefore they are automatically respected (Adler, Campbell, and Laurent, 1989). Regarding business decisions the Japanese have a long-term orientation, meaning that they are willing to sacrifice short-term returns to benefit in the longterm (Kono, 1990). This may be connected to the trust which Japanese managers have in their employees, in the sense that they are confident that their people will be able to handle changing business conditions. In fact, human capital in Japan is the predominant factor used to manage future uncertainties. The short-term orientation characterizing Western countries is thus often interpreted by Japanese managers as the absence of faith in their human resources (Ouchi, 1981). The Japanese culture is defined much more by masculine than by feminine values (Hofstede, 1980, 1991/94, 2001). This is consistent with the view of Mead (2000, pg. 151) which states that masculine cultures highlight the significance of performance and economic growth and workers attach more importance to the company for which they work rather than to their homes. Masculine cultures tend to prefer acknowledgement, monetary compensation, promotion, and challenge. Feminine cultures prefer instead a desirable relationship with superiors, collaboration within a group, "living in a desirable area" and job security (Hofstede, 1991/94, pg. 81-82). Looking at the features preferred by feminine cultures it can seem difficult to state that the Japanese culture is mainly masculine.

As will be explained afterwards, collaboration within a group is fundamental for the Japanese management practices and job security representing one of the three pillars of Japanese management, namely lifetime employment, is arguably one of its core characteristics. Notwithstanding the fact that Hofstede's analysis pointed out clearly that the Japanese is a more masculine culture, the issue seems more complicated and will be resumed subsequently. According to cultural values in Japan companies are not defined by the number of competitors they smash, but by the number of existing companies against which they compete. Thus, destroying a competitor shows a lack of dignity and provokes the loss of face. Loss of face brings a long-lasting shame or humiliation with it, which negatively affects one's incentives and career path. The attitude of avoiding to loss face reminds of Confucius: refrain from violating the rules. The rules are determined by the specific group of which one is part. This can be the employees of a certain company, one's family etc. depending on the context (Jackson and Tomioka, 2004, pg. 54-56). It is known that in Japan the company is often seen as family, this is commonplace in masculine cultures (Mead, 2000, pg. 151). If the rules are not clear the risk of losing face is higher, thus in this case the Japanese normally prefer to remain silent. This is also the rationale of the silence and vague responses of which business meetings with Japanese managers are often characterized (Jackson and Tomioka, 2004, pg. 54-57). The concept of face does not exist only in Japan, it has similarities with the Greek "philotimos", which stands for how much an individual behaves in compliance to the values and norms of the group to which it belongs (Hofstede, 1991, pg. 61). Face in fact stands for the opinion and impression which the other members of the group have of a person (Mead, 1998, pg. 136). How a person is perceived depends highly on the cultural context, thus a behaviour that for a Japanese may cause a loss of face would perhaps not cause it in another society (Jackson and Tomioka, 2004, pg. 65). In the Japanese culture esteem is highly valuable. This clarifies why for the Japanese maintaining a high reputation, thus not losing face, is fundamental. It can be interpreted as one of the justifications why Japanese managers tend to prefer to remain in one and the same company for their whole life (the other reasons will be discussed later). By switching employer, a manager would lose all the reputation which he has built up for years and would have to begin at zero (Trompenaars and Hampden-Turner, 1998, pg. 98).

In Japan it is not self-esteem, which is gratifying, but it is being esteemed by the group. In the Japanese culture everything revolves around the group. To sacrifice oneself for the group and conform to it is highly admired by the society. Indeed, most Japanese have the view that an individual can be successful only being part of a group (Christopher, 1984, pg. 133).

This explains why Japanese often spare no pains to become part of a group and spend most of their lifetime with it (Kumon, 1982, pg. 5-28).

Another important aspect characterizing the Japanese culture is the orientation toward harmony (wa) even if to obtain it sacrifice is necessary. In Japan harmony is supported through the avoidance of conflicts. Conflicts within a group can be very troubling as they can create the feeling of betrayal and in some cases be disrupting. As the belonging to a group is often seen as more important than being part of the own family in Japan, conflicts are tried to be avoided with all means available (Mendenhall and Oddou, 1986). Self-actualization is negligible and individuals should give up their own wishes for the greater good, the wellbeing of the group and its members (Wagatsuma, 1983).

"[C]ritical points in Japan's business history seem to involve exogenous events that clearly required adaptation by the business sector" (Morck and Nakamura, 2005, pg. 369), thus a review of the main historical events and the continuing evolution of the organisation of the business sector is fundamental to understand the Japanese Management System which continuously changed over time.

1.1. Tokugawa economy

Different scholars are convinced that Japanese Management is influenced by the history of preindustrial Japan, thus the review begins with an illustration of the Tokugawa period. The Tokugawa economy spans from 1603 to 1868. This period of time is named after its first shogun, which is what the commander in chief was called in Japan, a general named Ieyasu Tokugawa. A strict caste system existed: merchants were at its bottom, above were the craftsmen, then came the peasants and at the top were the samurai. A strict code of conduct, called Bushido, existed (Morck and Nakamura, 2005, pg. 370-371). The norms and values advocated by the Bushido code were: "courage, benevolence, politeness, veracity, sincerity, hono[u]r, loyalty and self-control" (Nitobe, 1969). According to it honour was the highest of all values. A samurai could decide whether members of lower castes had the right to life or not. Higher castes were not allowed to do business and in general aspiring wealth was seen as discreditable (Morck and Nakamura, 2005, pg. 370-371). Even today the samurai is seen by many Japanese as a hero. He is idolized especially for his capacity, by using the philosophy of Zen, to disregard his emotions for the purpose of aspiring honourable aims (Durlabhji, 1993). According to Zen life is not simply a journey's end but a destination. This view has probably influenced the continuous impulse of improvement of the Japanese (Fry, 1991), reflected in Kaizen and the long-term orientation of Japanese managers, discussed afterwards. Ieyasu repressed Christianity but however encouraged overseas trade. The third shogun of the period instead was convinced that religious ideas and trade are inseparable, and he thus isolated Japan by prohibiting trade with foreigners. Nevertheless, domestic trade flourished (Morck and Nakamura, 2005, pg. 370-371). The isolation had also the objective to maintain political stability. Japans late development caused by this isolation had several impacts on strategies and structure of Japanese companies (Vaszkun and Tsusui, 2012).

Another aspect coming from the Tokugawa period affecting Japanese organisations is the concept of ie (Bhappu, 2000). It can be translated with family, household, or home. Ie recalls a sense of affiliation, fidelity, and obligation to the members of the reference group. This group can be the family or household like it was traditionally or like recently it could be seen as something broader like a work group or a whole company (Jackson and Tomioka, 2004, pg. 81-88). Ie comprises the tangible assets "of a group of people and the intangible organization of a family to which these people belong". The feudal family was affected by on and ko. Whereby ko concerns the duty toward parents and on the responsibility which each family member had toward the others (Bhappu, 2000). Both ko and on were seen as sacred rules of the family connection (Nagai & Bennett, 1953, pg. 242-243).

The assigned rank in each ie depended on the tasks an individual carried out. Independently from rank seniority and age of individuals were respected. Relations between individual members of the ie were not seen as significant as those among the ie. The ie was like a network consisting of different hierarchical connections among distinct ies and between the members of a single ie. These connections were regulated by the concepts of on and ko. The entry into an ie was entitled most of all by birth, but also adoption or marriage legitimized an individual to become part of a certain ie. Ko was shown through dedication to the business of the family, in return on gave the privilege of lifetime employment (Bhappu, 2000). Even if the concept of ie has been abrogated with the Civil Code during WW II, it has somehow lasted as a type of group consciousness (Nakane, 1983). Even today in large Japanese companies work relationships are more meaningful than external ones (Iwata, 1982). In fact, Japanese seem often more attached to their colleagues than to their family members (Murakami, 1984, pg. 303). In modern Japan, the absence of the ie in the sense of family is recouped by work relationships which have become always more personal. In situations where conflicts arise and the ie fails its members are often desolated (Mendenhall and Oddou, 1986). This is also the cause of the standardization of conflict resolution mechanisms in many Japanese companies. Some well-known examples are Nemawashi and Ringi (Iwata, 1982) which will be illustrates in the next chapter.

During the Tokugawa economy companies were possessed by families which at that time were also known as clans. The corporate governance of this companies was thus derived from traditions and codes of the controlling family. The decision-making power was distributed between a so-called family council and the patriarch. The established rules did not govern only company matters but also personal ones, such as marriage and adoption (Morck and Nakamura, 2005).

Several European countries tried to open up the Japanese market from the end of the 18th century. From 1853 to 1854 America assaulted Edo, now known as Tokyo, until the Japanese government gave its consent to allow foreign trade in some harbours. However overseas trade stayed severely restricted until the beginning of the Meiji period in 1868 (ibid.).

1.1.1. Confucianism

The philosophy of Confucianism, originating in China, was heavily supported by the Tokugawa shogun (Vaszkun and Tsusui, 2012). Both Confucianism and Zen Buddhism were widely diffused in Japan. They shaped the work ethic of the Japanese completely (Keys, Denton, and Miller, 1994).

In accordance with Confucianism relationships in an ideal society, especially depended on hierarchy and family, are concerned with the maintenance of harmony (ibid.). The identity of individuals is characterized by the values of the group and the majority of work activities are actually group activities (Durlabhji, 1993). Conforming to Confucianism, which emphasizes inequality of the members of a group, male and senior members are automatically associated with authority. This automatic authority obliges senior members to care about the younger ones and thus the older members were responsible for the instruction of the juniors (Hofstede, 1991, pg. 37). Age and seniority were highly respected because in the Confucian culture they were equated with know-how (Adler, Campbell, and Laurent, 1989). Due to the inequality of the members of a group unavoidable tensions will arise. These should be solved to guarantee harmony. Thus, both senior and younger members must meet some specific obligations to prevent seeming egoistic (Jackson and Tomioka, 2004, pg. 91).

Confucianism provides a series of values to guide social relationships and governs property of the community. It is based on respect for the hierarchy, a high commitment to training, a though work ethic and harmonious relationships between the members of the society (Bellah, 1957). Various researchers are confident that Japanese industrial companies' operations comply to certain ethics derived from Confucianism which were characterizing the organisations of the pre-modern Japan, namely the ie (Abegglen, 1958; Ouchi, 1981).

1.1.2. Rice farming

During the Tokugawa period the shogun exerted ko obliquely by the allocation of land to samurai. In return the samurai owed the shogun loyalty or on. The samurai entrusted the land to peasants which harvested it. In this way the samurai exercised ko and the peasants demonstrated on by handing over rice to the samurai (Bhappu, 2000).

A great deal of Japanese traditions and cultural aspects appeared in relation to the strenuousness of cultivating rice fields. To survive group orientation was essential and to guarantee the continuous existence of the group mutual consideration and respect had become indispensable (Jackson and Tomioka, 2004, pg. 80). The ie is considered to be the household which is arranged around a hierarchical group taking care of a small-sized rice production (Renshaw, 1999). The concept of ie was not unique to Japan but existed also in China and Korea. However, the Japanese version differs from the Chinese and Korean one because non-blood relationships could become part of the family to guarantee the survival of the group (Jackson and Tomioka, 2004, pg. 89).

Individuals were judged by how much their activities and conduct benefited the group. "In such a collectively oriented society, the individual hardly existed as a distinct entity, and failure to fulfil one's obligations was considered selfish, or even cowardly" (Bird, 2002, pg. 184). Individuals who misbehaved risked to be banned from the group (Jackson and Tomioka, 2004, pg. 90). The term amae is connected to the concept of ie and concerns the reliance and the needs to be nurtured of the Japanese. This concept still exists today in Japan. Whereas people living in Western countries are emboldened to be autonomous, Japanese are elated to rely upon members of their group, which can be family, friends or even colleagues (Doi 1962, 1973). Amae is one of the determinants building familism and loyalty to the company because it boosts group cohesiveness. In fact, behavioural standards have been passed on to corporate relationships and individuals follow the norms of the group in view of amae or the "cultural tradition of the ie system" (Robertson, 2005). Thus, the collectivism or groupism of which most Japanese companies today are still characterized has its origins in the rice fields.

The villages which cultivated rice during the Tokugawa government had three elements in common, which later on have been translated to the well-known Japanese management practices (Firkola, 2006).

The first one is lifelong membership. Due to the difficulties of travelling at that time it was not easy to move to another village. Thus, most individuals stayed their whole life in their village of origin. The success of the cultivation of the rice fields depended almost entirely on the dedication of the workers which were the inhabitants of the village closest to the fields (Odaka, 1993).

They had often to self-sacrifice to guarantee a successful harvest by working very hard and thus ensuring the well-being of the whole village. This characteristic has been transferred to modern businesses and is now known as lifetime employment (ibid.).

The second element is the role based on age. The hierarchy and roles in this villages were predefined depending on seniority in terms of age and know how. It is here in this rice fields that the practice of learning on the job has its origin. The younger villagers learned from the older, more experienced ones, which had the duty to educate the new workers. This is often seen as the basis for the seniority-based wage system which developed in modern companies (ibid.).

The last element is collective behaviour. As already stated above to cultivate rice successfully self-sacrifice and teamwork was often required by the workers (ibid.). Harvesting rice is possible only with a continuous delivery of high amounts of water. Thus, to cultivate rice complicated irrigation systems were used (Brown, 1966).

This systems could neither be built nor be maintained by single individuals. Cooperation among villagers was fundamental to make the cultivation of rice and thus the survival of the village possible (ibid.). It was thus fundamental to maintain harmony at whatever cost to ensure the survival of the village in the long run. This can be seen as the forerunner for the unionism developed in modern Japanese companies (Odaka, 1993).

Merchant houses applied these three practices during the Tokugawa period. They had specific behavioural rules concerning lifelong membership, seniority, and adequate collective behaviour (Sakudo, 1978). Even an apprenticeship existed, by which new, young workers spent a lot of their initial work time in training and were promoted based on age and experience. During Japans industrialization in the nineteenth century companies adopted these practices (Firkola, 2006).

The most important cultural and social principles which developed by living in the villages of the Tokugawa government were:

- group consciousness, -harmony and independence of the group
- emotional connection
- age is equated with wisdom
- familism, meaning an enlarged family which was united by the head of the family (usually the oldest member)
- feudalism: the status of each family in a village was determined by the role it had in the preparation of village festivals and each individuals' value depended on the status of the family to which it belonged

In the modern Japan it is no more the family which determines the status of an individual, but it is the size of the company for which he works, thus the concepts of familism and feudalism still exist but have been adapted due to different historical factors and environmental changes. Also, orientation toward the group, cohesion and harmony in work relations still exist in Japanese modern companies and may be one of their strength (Brown, 1966).

1.2. Meiji period

The Meiji period owes its name to the sovereign who governed from 1868, which was the end of the Tokugawa period, to 1912. The new emperor understood that Japan desperately necessitated ideas and technology of the Western countries to be modernized. Thus, he assigned to the most brilliant scholars the task to travel abroad and study the best-practices of foreign organisations. These have been included in the program to modernize Japan which took about 20 years. The new ruler initiated several practices copied from different European countries, the most important were democracy and the education system from Germany, mandatory schooling from France, college and military force from Prussia and navy from Britain (Morck and Nakamura, 2005).

The previously existing cast system and Bushido were weakened by the possibility of moving from one social class to another, the reorganization of land and the freedom of religion which were all instituted by the new government. Additionally, it introduced capitalism and changed completely Japan's legal system resembling German civil law. Bonds started to be traded in the 1870s and the stock exchanges of Osaka and of Tokyo were established in 1878. To fund industrialization dominant merchant families relied on the issuance of shares. This is how the famous pyramidal structures called Zaibatsu were formed and began to prevail in Japan (ibid.).

1.2.1. Zaibatsu

The word Zaibatsu is used to indicate all big corporate groups in Japan preceding WW II (Morck and Nakamura, 2005). They were the dominating industrial organisations in Japan before the war. Apart from this no uniform definition of Zaibatsu exists (Bhappu, 2000). Instead the study of this term is characterized by vagueness (Morck and Nakamura, 2005).

Japanese literature dates the development of the first Zaibatsu back to the Taisho period between 1912 and 1926. As typical in Japan also this period got his denomination from the sovereign of that time. The term Zaibatsu is associated to this period because seemingly it was the first time that this specific term has been used. However, various companies which were labelled as Zaibatsu were founded long before the Taisho period. Known examples are the Sumitomo and the Mitsui group. Also, the Yasuda and the Mitsubishi group gained importance in the Meiji period. Then again other Zaibatsu were established after WW I. Thus, it is not easy to attribute the notion Zaibatsu to an exact time horizon (ibid.).

Generally, Zaibatsu entails family control. Notwithstanding, Nissan, a company which is frequently named as one of the predominant Zaibatsu, has most of the time not been controlled by a single family (ibid.).

Zaibatsu are ascribed the characteristic of monopolizing a lot of industries. This is also the reason why the U.S. government used the determinant of market share to identify a group as a Zaibatsu and subsequently to dissolve it. The ambiguous characterization of Zaibatsu caused probably in part their incomplete disbandment (ibid.).

Zaibatsu were often attributed the feature of independence from bank financing. However, as described below several Zaibatsu included a bank in its groups which had the function of granting loans to the other companies of the group (ibid.).

Zaibatsu are often described as groups of companies which possess substantial property of land and an abundance of minerals (ibid.).

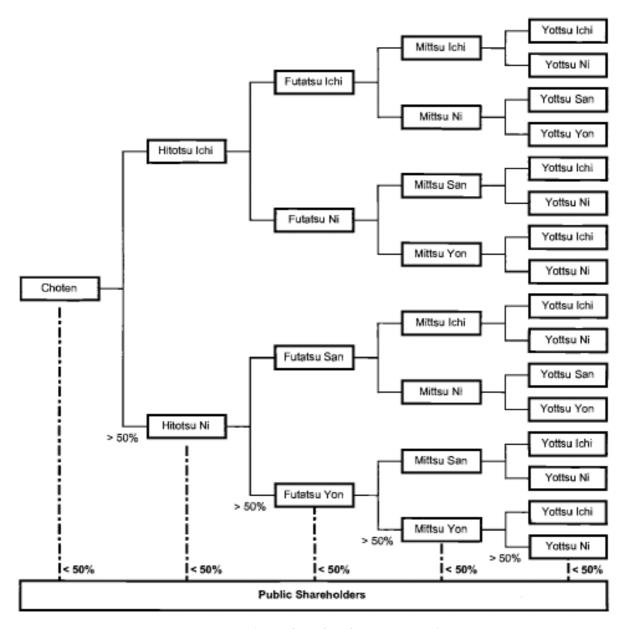
Another aspect frequently ascribed to Zaibatsu was that the business group depended heavily on a "sogo shosha", which is a general trading company (ibid.). This firm facilitated the business trading of the Zaibatsu inside Japan and overseas. It was known as a firm able to arrange all types of deals inside and outside the Japanese market. The most known "sogo shosha" was Mitsui Bussan (Okazaki and Yokoyama, 2001).

Now the notion Zaibatsu is occasionally used to describe listed business groups in developing countries, which are controlled by a single family (Morck and Nakamura, 2005).

Lastly a typical attribute of Zaibatsu is the pyramidal structure. A partnership or holding company controlled by a family owning various subsidiaries was named Zaibatsu. These subsidiaries controlled other companies, which controlled again other firms and so on. Thus, some firms were owned directly, some were owned indirectly (ibid.).

Some scholars extended the definition of Zaibatsu connoting any large, listed group of firms which has a pyramidal structure. The firm at the top of the pyramid which is owned by the family is named apex firm. This was initially a family partnership and became later on a family corporation when the company went public. The companies of which the apex firm holds shares are denoted as "directly controlled subsidiaries". All the other firms which are not controlled by the apex firm but are part of the group are termed "indirectly controlled subsidiaries". All these subsidiaries were public corporations (ibid.).

The controlling shareholders were therefore commonly affluent families. Public shareholders trusted in the reliability of the majority shareholders, also because financial institutions rarely had an influence on corporate governance (ibid).



Source: (Morck and Nakamura, 2005)

This illustration shows the typical structure of a Zaibatsu. Choten is the apex firm which is listed and less than 50% of it is owned by public shareholders. The majority stake is in the hands of the controlling family. It directly controls Hitotsu Ichi and Hitotsu Ni by possessing more than 50% of their outstanding shares. Hitotsu Ichi has a majority stake in Futatsu Ichi and Futatsu Ni, whereby Choten controls them indirectly through Hitotsu Ichi, and so on.

To modernize Japan the new government had set up a great deal of enterprises in various industries. This caused an ever-growing amount of public debt. To reduce it the Meiji government carried out a bulk privatization in 1880 by selling all these enterprises, except those involved in weapons-related industries. The primary buyers were the leading Zaibatsu, enabling them to enlarge their business by expanding into adjacent and completely new sectors (Morck and Nakamura, 2005).

At that time, a crucial concern of the Zaibatsu was to maintain family control and at the same time meet the continuously rising demand for capital caused by the expansion. Satisfying the capital needs was even more difficult for Zaibatsu which were not listed (ibid.).

The civil code that was adopted during the Meiji period identified big family organisations, as the Zaibatsu, as general partnerships. When the government established the commercial code in 1893 the apex company of some Zaibatsu went public (ibid.). The Meiji government induced the prosperity of the Zaibatsu by introducing the joint stock company and partnership as legal forms (Bhappu, 2000). In the Zaibatsu ownership and management did not coincide. Management decisions were characterized by independence from the controlling family and were taken by the manager which were employees of the company. These managers generally advanced inside the Zaibatsu, meaning that to become manager an employee had to begin as fledgling in the company and then work his way up (Tsuda, 1977). Due to the adoption of other laws managers holding shares of the company obtained the same legal rights of members of the family. This change was often not easily to put up with for the controlling family. However, the idea of public shareholding, meaning that complete unknown strangers owned a part of the company, was even more incomprehensible and thus not often tolerated by the family. It should be alluded that companies which would not permit outsiders to participate in the corporate governance endangered their success estranging top managers. Family firms which had now management talent under its members and were not able to employ it due to their restraints ran the risk of failure. Various Zaibatsu were able to succeed and characterized by a rapid growth without making use of equity financing from outsiders. This was possible thanks to the hiring of remarkably skilled managers and the alliance with influential politicians. The Mitsui and Sumitomo Zaibatsu were those providing the most government support enabling the realization of important economic policies. Incrementing corporate capital by accepting financial sources from outsiders entailed a significant risk: the outsider may gain control and the family could lose its majority stake. However, also Zaibatsu which accepted no capital from new investors faced problems. A good example is the Mitsui Zaibatsu which got into trouble as the various family members tried to take part in the corporate governance. Thus, independently of accepting outsiders as investors or ever-far relatives, it turned out to be always more challenging to retain control over the Zaibatsu (Morck and Nakamura, 2005).

A very interesting solution was found to this seemingly unsolvable problem: a pyramidal structure. This enabled the family to maintain full control and contemporaneously guaranteed the availability of all the capital the group needed to succeed (Aikawa, 1934). This stimulated the enormous expansion of numerous Zaibatsu (Morck and Nakamura, 2005).

Zaibatsu did not exclusively exist in Japan at that time. They were widespread also in Europe, the U.S. and Canada (ibid.). Even in the last years of the twentieth century Zaibatsu persist to be the prevalent form of ownership all over the world except in the U.S., the U.K. and Japan. The only difference is that instead of using the term Zaibatsu to name them, pyramidal group is employed (La Porta, Silanes, Shleifer, and Vishny,1999).

Additionally, the structure of the Zaibatsu coincided with that of the Chaebol which were the predominating companies in Korea at that time. Also, in Korea Confucianism was very influential but Buddhism was not, this is the reason why in the Korean Chaebol only consanguine members of the family could become part of the members controlling the company (Morck and Nakamura, 2005).

The occurrence of the Great Kanto Earthquake in 1923 caused several economic problems. The 1920s and the 1930s in Japan were marked by economic downturns, ultimately resulting in the Great Depression. All this led to the collapse of many large Zaibatsu. Determinants for the continuity of a Zaibatsu seemed to be its location in the pyramidal structure, its function in intragroup transactions and the presence of a financial institution inside the Zaibatsu. Zaibatsu which included a financial institution located near the apex firm generally survived because the controlling family was directly involved in its operations. Additionally, the intragroup transactions strengthened the financial performance of those banks. This was the case in the Sumitomo, Mitsui, and Mitsubishi Zaibatsu whose banks held highly diversified investment portfolios. Different Zaibatsu instead managed their banks so that they provided capital just to firms being part of the Zaibatsu, meaning they had no diversified portfolio (Morck and Nakamura, 2005). A crucial depression caused by the Great Kanto Earthquake is the Showa depressions. Several companies had issued debt before the earthquake which they were incapacitated to reimburse. In the end it was the banks possessing these bills and thus the government discounted them. Their payment was extended to two years, which was then prolonged for further four years. A company having a lot of this outstanding bills was the Suzuki group. Notwithstanding the fact that it has not been able to pay its debt, it did not go bankrupt due to the movement of its complete business to another firm. The initial firm underwent a dissolution after the repayment of all its debt (Kato, 1957).

Because the collapse was just at managerial and financial level the Suzuki Zaibatsu contained successful companies and competitive assets after all. As its debt was offset, other Zaibatsu appropriated these assets and companies. The failure of the Suzuki Zaibatsu was the most impressive one of that time, however, there have been much more groups which broke up due to the several depressions in the 1920s. What all these Zaibatsu had in common, was that they used their banks primarily to grant loans to companies being part of the Zaibatsu. This meant that these banks massively relied on the interest payments of these firms. As these experienced financial stress, the banks' performance declined, and they were no more able to finance the remaining companies of the Zaibatsu. This caused the failure of the whole Zaibatsu. Additionally, these banks were often situated near to the bottom of the pyramidal structure implicating that through intragroup transactions debt and losses were concentrated in the banks. Successful Zaibatsu instead had situated their banks near the apex firm thus moving income and valuable assets toward their banks. According to the "organ bank hypothesis", those Zaibatsu which had banks granting loans easily to the companies inside the group without diversifying collapsed and were the cause for the Showa depression in 1927 (ibid.).

Zaibatsu can be differentiated from Keiretsu, which is the term used to describe the business groups after WW II, because Keiretsu are not characterized by a pyramidal ownership structure (Morck and Nakamura, 2005).

Different types of Zaibatsu

The biggest Zaibatsu were the Mitsui, the Sumitomo, the Mitsubishi, and the Yasuda group. These four Zaibatsu were "the major family-controlled pyramidal groups of pre-war Japan." Whereas the establishment of the Mitsui and the Sumitomo Zaibatsu is dated back to the end of the nineteenth century, the Mitsubishi and the Yasuda group were quite recent. In reality the Mitsui and Sumitomo group emerged during the Tokugawa economy but developed their pyramidal structure just in the late nineteenth century. Since 1878, which was the year in which the Osaka and Tokyo stock exchange were established, firms in Japan could go public and increase their capital base by issuing shares to outsiders. Sumitomo and Mitsui both took this opportunity and enlarged their business by building up pyramids. The location of a company inside this pyramidal structure depended on its performance. Better performing firms were often moved up and lower performing ones were pushed down the structure (Morck and Nakamura, 2005).

At Mitsui, their position depended also on the facilitation of tunnelling, meaning that through intragroup transactions profits were lumped in companies which were directly owned by the apex firm and losses were moved to companies barely controlled by Mitsui. This shows why the performance of companies at the top of the pyramids appeared often better than that of those positioned at a lower level (Claessens, Djankov, and Lang, 2000).

Apart from the four biggest Zaibatsu, there were other three very significant ones. They can be distinguished from the Zaibatsu mentioned above because they involved distinct chains of products. Additionally, they excluded financial institutions. Thus, they are termed industrial Zaibatsu and consisted of the Furukawa, the Kawasaki, and the Asano Zaibatsu. The Asano group was specialized in cement production, the Kawasaki in shipbuilding and the Furukawa in copper (Morck and Nakamura, 2005).

Another type of Zaibatsu was the widely held Zaibatsu. These were Riken, Nisso, Nichitsu, Mori and Nissan. All of them appeared at the beginning of the 1900s and expanded with the always more active stock market in the 1900s. The apex firms of these Zaibatsu were not controlled by a single family, but they were widely owned. The founders held just a small part of the shares but however did not fear to lose control because they were experts in their field, usually engineers, and their knowledge was essential for the success of the company. Due to the technical competences characterizing these Zaibatsu, they frequently operated in electricity, chemicals, and heavy industries (ibid.).

Their expansion entailed diversification into other sectors. This led them to compete with the family owned Zaibatsu. As the industrial Zaibatsu also the widely held Zaibatsu did not own any financial institution and thus seriously depended on outsiders to provide capital (ibid.). It was logical that these new Zaibatsu demanded urgent capital injections to reach economies of scale to be able to compete with the already existing Zaibatsu. This meant that it was impossible to maintain control as a single family because the amounts of capital needed exceeded the belongings of the family and public shareholders were needed. This guaranteed the unlimited access to capital (Aikawa, 1934).

Local Zaibatsu were owned by families which were locally influential. Their operations were constrained by a distinct territory and certain business areas. Usually the controlling families earned money in closely held family companies and employed it by investing in different business areas sometimes together with local investors. These local Zaibatsu frequently stayed small. However, some were able to expand in other geographical areas and began to operate at national level (Morck and Nakamura, 2005).

Nonetheless even this bigger local Zaibatsu maintained their head office in their area of origin. Their operations were usually not very industrialized due to the limited amount of capital at their disposal (ibid.). Even if this companies were notably smaller than the main Zaibatsu, they adopted the same pyramidal structure as them. A few of this small local Zaibatsu still exist today. A known example is Kikkoman (Morikawa, 1976).

Different independent companies which were founded in this era were also very important. A well-known one is Toyota. These new enterprises were frequently connected to a Zaibatsu in some way. Toyota for instance was related to the Mitsui group until the last years of WW II (Morck and Nakamura, 2005).

1.3. Military Build-up

Patriotic sentiments arouse due to the stagnation of the economy and because the Japanese motion for a racial parity article in the League of Nations Covenant was turned down by the U.S and the U.K. This sentiments reinforced Bushido. The military gained power due to several victories against China, Russia, and Korea. This undermined business and political influence. Additionally, the military hiddenly grabbed control by murdering several politicians. To increase its power further and guarantee the availability of the needed capital to finance the war the military government adopted laws which withdraw the control rights of shareholders. Even if the controlling families of the Zaibatsu maintained ownership, they had no more influence on the management. Profits could any longer be paid as dividends but had to be reinvested into the business (Morck and Nakamura, 2005).

The economic organization of Japan in 1945, enforced by the extreme right government, had a lot of similarities to that of Russia in the 1930s (Okazaki, 1994). Like in Germany, governed by the Nazi at that time, shareholders were doomed to be egoistic, unpatriotic and risk averse. This idea was used later on to take away the governance rights of shareholders (Morck and Nakamura, 2005).

Military expenditures rose continuously. The military government took over completely the Japanese economy with 1937, the outbreak of the second Sino-Japanese war. Production was concentrated on chemical industries and on the heavy industries on which the military depended. Production in the light industries, as for example the textile industries, was converted. This changed Japanese industrial organisations completely and had significant repercussions on businesses (ibid.).

At the beginning of the 1930s the Zaibatsu began to amplify their businesses in the heavy industries. This enlargement was made possible by the issuance of equity. The industrial structure of the largest Zaibatsu was altered completely. Before this change the subsidiaries just below the apex firm were nearly completely possessed by the controlling family. In the 1930s these subsidiaries went public because capital was needed immediately to expand into heavy industries which were characterized by fast growth. The Zaibatsu tried thus to profit from this great growth opportunities. The listing resulted in a declining shareholding of the Zaibatsu in their subsidiaries until 1943. Also, the widely held Zaibatsu established by an individual founder which was often an engineer, or a chemist expanded into these military-related industries (ibid.).

In many Zaibatsu the stake of the apex firm decreased so remarkably that in 1943 that of government owned banks were higher. This meant that these financial institutions had become the most influential shareholders (ibid.).

The economy was taken over by the military step by step. The end of the 1930s is named the "creeping war economy". This evolution was enabled by the staggering economy which made sure that the Japanese lost confidence in unrestrained capitalism and democracy (ibid.).

1.3.1. Cartels

In 1931 the military government approved the "Important Industries Law" which authorized the creation of cartels managed by so-called control committees composed of officials and managers. This committees determined the industries in which production and price regulation would take place (Fletcher, 1989).

Where minimum fifty percent of the existing companies of an industry demanded it, the formation of a cartel was authorized. If the request came from at least two third of the companies, the remaining ones should be obliged to become part of it. Activities of a cartel could be invalidated only if the committee authorized their nullification (ibid.).

Naturally, these committees were primarily composed of members of the military (Morck and Nakamura, 2005). The state of mind of the Japanese was that shareholders were short-time oriented and the destiny of the company did not matter at all to them. They were selfish and just interested in their dividend payments (Takahashi, 1930). This led the military correctly conclude that the society would approve its appropriation of corporate control (Morck and Nakamura, 2005).

1.3.2. Nationalization

The end of the 1920s was characterized by several economic downturns and an increasing patriotism reinforced interest in the development of the rationalization in Germany (Nakase, 1979). Japanese government and managers were particularly interested in the cartels promoted by the state to restrict competition and enable collaboration among the companies, stimulated by the rationalization movement. The Japanese government subsequently used cartels and trusts to counteract the decline of the economy. The goal was to become more efficient and productive and to decrease the costs of doing business (Vaszkun and Tsutsui, 2012).

Subsequently to the takeover of the corporate governance the military enforced the nationalization of the Zaibatsu and the financial institutions. This led to a banking system controlled by the state, the invalidation of the control rights of the controlling families of the Zaibatsu and their isolation, and the formation of a well-developed central planning system (Morck and Nakamura, 2005).

The banking sector was nationalized in two steps. Firstly, the sector was stabilized thanks to the implementation of a new policy by which any prefecture should just have a single local bank. This caused the number of banks to decrease and competition among banks was easier to regulate (ibid.). The effect of this policy was not just the stabilization of the sector but also raised entry barriers. The financing granted by banks was determined by a few people which could either be replaced or were under the control of the military government. Secondly, the government also decided to increment the amount of capital which nationalized banks had at disposal to grant long-term loans. Thus, the government became the main creditor of many firms. Additionally, these nationalized banks acquired equity and therefore the state became also majority shareholder of several companies (ibid.).

Also, the control rights were taken away from the controlling families in two ways. First, the apex firm was converted from a partnership into a corporation. This was made possible by reforms concerning heritage and the taxation of dividend income in 1937 and 1938. These reforms caused partnerships to be unsustainable also because dividend income was taxed twice. This much higher taxation could be evaded if the apex firm was a corporation. Until 1940 the apex firm of every major Zaibatsu had been converted into a corporation. Additionally, the government had become majority shareholder of many formerly independent companies (ibid.).

Secondly, the government suspended the income of the controlling families. With a law passed in 1938 dividend incomes were put under the control of the state. The justification of this law was the enhancement of the Japanese economy through an increase in retained earnings. Due to the fact that the holding companies had become corporations the only income of the controlling families were dividends which had been diminished greatly. In 1940 the Kikakuin, which was the Japanese planning ministry created in 1937, publicized the formation of a new economic system, which assured that companies were no more under shareholder' control. It was characterized by a well-developed central planning system. The authorization from the government was needed for crucial corporate decisions. "Toseikai", meaning industry control boards, obtained production orders from the Kikakuin, and partitioned these to the single companies of the industry. Furthermore, the Kikakuin instructed financial institutions to relocate financing to the independent firms depending on their role in the final plan. Not only the target quantity was defined but also the final price. In 1942 the economy plummeted due to the inability of several companies to match the target production (ibid.).

To counteract this economic downturn the government firstly boosted prices in 1943 and secondly demanded that every firm had to nominate an individual which was responsible for the accomplishment of the production order quantities. Each employee had to follow its instructions (ibid.).

Even if some scholars state that the banking sector was restructured and that the Zaibatsu were broken up during the occupation of the U.S., its beginning can be found during the military build-up. In fact, the banking sector had already been transformed and did no more resemble the form it had before the war, and the control exercised by the controlling families over the Zaibatsu had vanished previously to the U.S. occupation (ibid.).

1.4. U.S. occupation

From 1945 to 1952 Japan was occupied by the U.S. with general MacArthur as military commander (Morck and Nakamura, 2005). During the war various Zaibatsu grew heavily by supporting the Japanese army through the supply of military goods and provisions (Yafeh, 2000). Nonetheless, the contribution of the controlling families to this backing of the army is unclear (Morck and Nakamura, 2005).

A law aimed to restrain Zaibatsu was the Anti-Monopoly law which was adopted in 1947 by the Allied Powers. It forbade the formation of holding companies and thus the creation of pyramidal structures, the holding of shares of manufacturing firms in other companies and the ownership of financial institutions of other firms exceeding 5% (ibid.).

Due to amendments requested by corporate lobbyists in 1949 manufacturing companies were permitted to hold shares in other companies. This allowed the establishment of vertical keiretsu (ibid.).

1.4.1. Dissolution of Zaibatsu

MacArthur established new economic policies conforming to those of the Allied Forces. He was clearly an objector of the communism and applied conservative techniques to convert existing policies (Dower ,2000). The purpose of the new policies was the disbandment of the Zaibatsu because the U.S. forces accused them to be the cause for the pre-existing militarism in Japan that encouraged imperialism.³ To achieve this result MacArthur attempted to restructure the banking sector and reform those companies which were previously part of a Zaibatsu so that they became independent corporations. Corporate governance issues were resolved by the execution of greenmail and hostile takeovers. During the U.S. occupation the financial and corporate systems of Japan were completely renewed, resembling those of the U.S. To realize this renewal two important reforms were passed. Both mirrored those disposed under the Roosevelt New Deal in the U.S. The first one prohibited financial institutions to ensure securities. Additionally, a ceiling was put on the holding of shares by banks of independent companies. This could not exceed five percent. This restriction was necessary to guarantee that financial institutions could no longer be located near the apex firm. Secondly, wide pyramidal structures were broken up. Notwithstanding the invalidation of the control rights which occurred during the military build-up, shareholders still appeared to own the stock. Under the U.S. occupation in 1950 directors were removed, intragroup shareholding was dissolved, and shares were sequestrated (Morck and Nakamura, 2005).

The rationale behind the dissolution of the Zaibatsu was their supposedly overgrown market power. The Zaibatsu were blamed to be responsible for the inaccessibility to financing of the independent firms because the Zaibatsu owned most financial institutions and were thus allegedly ascribed to exclude firms not being part of the group from the allocation of financing (ibid.).

Additionally, due to the fact that Zaibatsu owned firms across the whole supply chain they could prevent the distribution of materials to independent companies. Just like doing business outside local areas necessitated the collaboration of trading houses owned by Zaibatsu. Lastly, Zaibatsu were able to appropriate highly skilled employees from small companies (ibid.).

³https://www.referenceforbusiness.com/management/Int-Loc/Japanese-Management.html and (Keys, Denton and Miller, 1994)

Furthermore, independent companies respected the Zaibatsu and thus did not enter the areas where they were doing business. All these proceedings and habits hindered the formation of competition. Thus, the ultimate aim of the Allied powers' policies was to permit every company to compete without the constraints created by the Zaibatsu, disrupting entry barriers and so guaranteeing the possibility of entering in a free market (ibid.).

To the controlling families of the Zaibatsu were handed out 10-year government bonds in return for their shares. The companies chosen for disbandment comprised more or less 42% of the total equity capital of the business sector (Tamaki, 1976, pg. 453). At first the confiscation seemed to be compensated very well. Latterly however, due to a severe inflation the bonds became nearly worthless. The process of the disbandment of the Zaibatsu was everything but complete. The policies allowed companies which had been part of the former Zaibatsu to reorganize and thus create new corporate groups. This was possible because as stated above there existed no clear-cut definition of Zaibatsu and thus also their dissolution was imperfect. In fact, smaller Zaibatsu or those without a controlling family were sometimes overlooked and thus not dissolved. To determine whether a group should be considered a Zaibatsu and thus be broken up the Allied powers used market share. This led to the ignorance of several Zaibatsu. Since in the banking sector no financial institution had a clearly prevailing market share, no dissolutions occurred (Morck and Nakamura, 2005).

Stock market crash

The stock exchanges of Japan were shut down by the allied powers in 1945 and re-launched in 1949. Shares and intragroup shareholdings were relocated to selected investors and employees. Those were given the possibility to acquire these shares at highly discounted prices and sometimes they were literally handed out. About 23% of the shares owned by controlling families were acquired by employees (Morck and Nakamura, 2005). The others were disposed mainly through several auctions. The prices were naturally very low. Employees and managers could buy up to a certain number of shares and usually liquidated them as the stock exchanges were re-launched. A sharp decrease in share prices and a dilution of equity of the companies involved in the relocation followed (Tamaki, 1976, pg. 454).

The repercussions of this dilution were especially serious for large Zaibatsu as it was typical for them that not only the apex firm or the parent company held shares of the subsidiaries but also these possessed stocks of the apex or parent company. This is called crossholding and was quite common in large pyramidal structures. This entails both the parent company and the subsidiary to report a higher income and more assets as they would if they were an independent company. After the disbandment of the Zaibatsu and the appropriation of the shares, the capital obtained from the sale of these shares was retained by the government (Morck and Nakamura, 2005).

Neither the parent company nor the subsidiaries were compensated for the confiscation and thus in the end lost the extra assets previously reported on their balance sheet and had now no more extra income to record. The amount of the outstanding shares had however not declined in proportion to the decrease in assets and income. This caused the price of these shares to decline proportionally when the disbandment was declared. Additionally, also bond prices plunged. Furthermore, share prices had already dropped due to the damages of physical assets caused by the war. To restore the companies released additional shares, thus creating an excess availability of equity. This caused not only the share prices of Zaibatsu to decline, as did their dissolution, but also that of all the other companies to drop. To foster the stabilization of Japan's economy various policies were implemented in 1949: the exchange rate was fixed and lending from the Reconstruction Financing Bank was discontinued. This last economic measure resulted in higher interest rates, lower availability of capital and increased issuance of equity (ibid.).

All the factors causing an increase of the issuance of shares or a decrease in its price ultimately caused the crash of the stock market. Consequently, companies refrained from the issuance of additional shares at the existing inferior prices. They began to rely heavily on short-term debt granted by banks to finance their operations. At the termination of the U.S. occupation the Japanese economy was characterized by independent companies and corporations in which no shareholder actually had control. In the period of the U.S. occupation a lot of Japanese companies engaged in hostile takeovers (ibid.). What actually survived the occupation were smaller groups of companies which were previously part of a Zaibatsu (Bhappu, 2000).

Even if these groups were no more part of a pyramidal structure, they began to collaborate through social connections which subsisted between the people working in the core companies (Gerlach, 1992). In fact, the executives of these companies convened frequently (Bhappu, 2000). In the last years of the 1960s the widely held companies created during the U.S. occupation no more existed. They had become either part of a Keiretsu, narrowly held or private (Morck and Nakamura, 2005).

1.5. Formation of Keiretsu

The trading of corporate control began rapidly. Hostile takeovers were commonplace and often concerned the ex Zaibatsu companies. To content this threat the executives of this firms started to collaborate, behaving like a collective organization. To defend their companies against a hostile takeover they arranged white squire and white knight agreements. Following a white knight agreement, the company that would have been taken over by a hostile acquirer, instead is rescued by a friendly firm which acquires the target and maintains its managers. A white squire arrangement is characterized by the provisional acquisition of shares of the target by a friendly firm. The quantity of this acquired shares is high enough to block the realization of a hostile takeover. This coordination between the executives was feasible due to their regular meetings, which latterly were known as presidents' clubs. A different version of the white squire and white knight arrangement which had developed during that time was the socalled Keiretsu defence. This is defined as a group of friendly firms which purchase a small number of shares of the target company. The sum of the acquired shares however grants enough control rights to impede an impending takeover (Morck and Nakamura, 2005). Actually, in several countries a similar defence is used in companies with pyramidal structures. The ownership of around 10% of the outstanding shares of a company allocates control rights and thus diminishes the possibility of success of a hostile takeover (La Porta, Silanes, Shleifer, and Vishny, 1999). In effect after WW II ownership stakes in Japan of companies which made use of the so-called Keiretsu defence were typically in a range between 5% and 10% and higher (Yafeh, 2004).

Financial institutions were not dissolved as the Zaibatsu during the U.S. occupation because market power was used to determine if a company were to disband or not and that of the banks were tolerably low. Notwithstanding, the controlling families of the Zaibatsu were deprived of the control of the financial institutions (Morck and Nakamura, 2005). These were able to grow because they played a crucial role in the restructuring of companies that had been damaged by the losses the war had caused. Financial institutions were thus able to increase their influence (Hoshi and Kashyap, 2001). The U.S. government had prohibited banks to emit bonds. After the U.S. left Japan in 1952, in reaction to a capital deficiency, the Japanese government enacted a new law that allowed the creation of a new class of financial institutions. This was called "long-term credit bank" and it was authorized to emit bonds, but it could not accept deposits. All the other banks, also termed ordinary banks, were allowed to accept deposits but not to emit bonds (Morck and Nakamura, 2005).

Every bank which had been part of a Zaibatsu previously preferred to become an ordinary bank because they all had already large existing deposits and granted loans which had been profitable (ibid.). Even if these banks were no more part of the Zaibatsu, they were able to maintain strong relationships to the other former member companies of the Zaibatsu and thus remained the main banks for them (Teranishi, 1999). These connections were fundamental for the establishment of the Keiretsu which occurred in the 1950s and 1960s. These financial institutions arranged the equity placements necessary for the white squire defences which ultimately lead to the formation of the Keiretsu (Morck and Nakamura, 2005).

Aside from the group banks which were typical for Keiretsu, they were also characterized by a trading company, which as explained before existed also in Zaibatsu. The main task of the trading company was to ease the transfer and delivery of products and services among the different member firms of the group. Due to the creation of this networks it has never been easy for companies which were not a member of the networks to get hold of Japanese distribution channels. This was even more difficult for non-Japanese firms (Drucker, 1999). This is because Keiretsu members are able to secure needed resources, semi-finished goods necessary for production and financing from within the network of firms which constitute the Keiretsu. This often enabled the Keiretsu to be completely independent from "outsiders" regarding the supply of the above-mentioned assets. ³

Another aspect important for the success of Keiretsu are the SME which often constitute the suppliers of the Keiretsu. They guaranteed the profitability and flexibility of Keiretsu because they often divided various costs regarding design and R&D of the big member companies of the Keiretsu. Additionally, during economic downturns these small companies had also to sustain losses and discharges, accept inferior prices dictated by the larger companies and guarantee employment to resigning managers whenever member firms of the Keiretsu are no more pleased to employ them. This is possible because this small subcontractors have no market power compared to the large companies which are part of the Keiretsu and thus often lose out in negotiations (Cutts, 1992).

Interesting to know is also that M&A transactions between Keiretsu and foreign companies are quite uncommon. Instead joint ventures are very frequent. Hostile takeovers do practically not exist in Japan. This is caused by various practices typical for Keiretsu: member companies are much more independent from the recording of earnings than Western companies, they are upheld by the main banks and hold shares in each other (Keys, Denton, and Miller, 1994).

⁴https://www.referenceforbusiness.com/encyclopedia/Int-Jun/Japanese-Management-Techniques.html

The formation of the Keiretsu after WW II had two outbreaks. Both were mainly caused to guarantee the prevention of hostile takeovers. The first outbreak occurred during the 1950s and comprised the reorganization of the former Zaibatsu into Keiretsu. The second one happened during the 1960s and involved the creation of newly developed horizontal Keiretsu. During this wave it were banks which helped their client companies to deter corporate takeovers (Morck and Nakamura, 2005).

Every Keiretsu included a so-called "kanji gaisha" which was a securities company detaining the physical certificates of the intercorporate equity holdings of the whole group. This firm had a deep-rooted connection to the Keiretsu. When a firm intended to sell its equity holdings of another one of the group it had to inform the kanji geisha, which then alerted the other company (Sheard, 1994). This meant that this firm would also probably dispose the shares they held of the selling company. Thus, it was convenient not to sell the crossholdings to continue to be protected from takeovers (Morck and Nakamura, 2005).

The organization of Keiretsu and their success clearly define the post-war period of Japan. It is often argued that their function was principally the strengthening of management and the assurance of success of Japan's dominating companies (Morck and Yeung, 2004). It has been reported that in the post-war Japan troubled Keiretsu have often been saved from the collapse and that this has not been the case for weak independent companies. This means that Keiretsu were actually successful in that period (Morck and Nakamura, 1999).

Two different types of Japanese Keiretsu exist: the horizontal and the vertical Keiretsu. In both public shareholders never have majority stakes and thus do not have a relevant role in corporate governance (Morck and Nakamura, 2005).

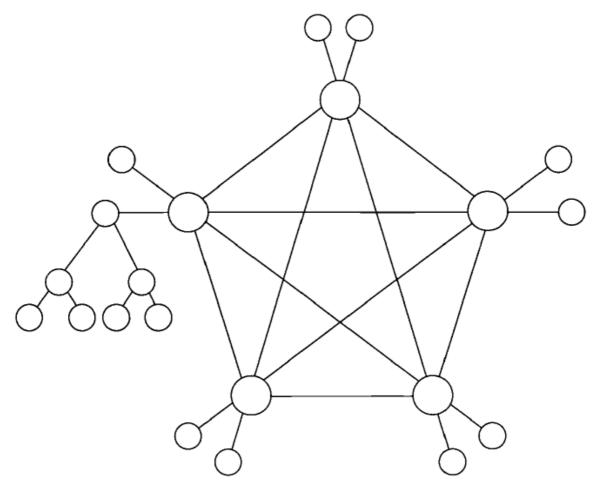
1.5.1. Horizontal Keiretsu

Horizontal Keiretsu are those which were created by the agreements aimed at preventing hostile takeovers. These created interindustry groups of companies which bought a small number of shares in each other and thus jointly controlled one another. The executives of these Keiretsu were unrestricted from the influence of external shareholders. Additionally, executives had not to respond to controlling shareholders due to the absence of the family parent corporation (ibid.).

This meant that all companies which were part of a Keiretsu were comparable to widely held companies because the executives had no accountability toward shareholders (Beale and Means, 1932).

Executives of member firms of Keiretsu were really free to manage the company as they wanted without the necessity to care about income, dividends or share price, because their many individually small stakes were in the hands of stable investors. This meant that they had even more freedom in the management of the companies than managers of actually widely held companies had usually (Morck and Nakamura, 2005).

The typical structure of a horizontal Keiretsu is shown in the picture below. The big circles depict the most important companies of the Keiretsu which hold a small number of shares in one another. The sum of these grants control over the single firms. The core companies hold stock of the smaller member firms which are represented by the tinier circles. Several of this core firms are the apex company of this smaller firms (ibid.).



Source: Morck and Nakamura, 2005

Anti-pyramidal structure laws have been softened after the U.S. occupation. This enabled the core companies of the Keiretsu to build pyramidal structures. These core firms became the apex firm of the new pyramids. Horizontal Keiretsu were hence a group of core companies which individually managed a pyramid constituted of controlled corporations.

The structure was thus comparable to that of a Zaibatsu. However, in the Keiretsu only the core companies control one another as a consequence of the crossholding of shares (ibid.).

1.5.2. Vertical Keiretsu

The structure of the vertical Keiretsu is more comparable to that of a typical pyramid. In fact, several of these vertical Keiretsu were merely industrial Zaibatsu which had been able to avoid disbandment. Additionally, new vertical Keiretsu developed. Following the war especially companies in manufacturing industries, in which the production of goods was carried out in diverse steps conducted by different companies, established vertical Keiretsu. Even in this case white squire arrangements have primarily been the reason for their establishment. Their structure is more pyramidal than that of a vertical Keiretsu (Morck and Nakamura, 2005).

The apex company holds enough shares in its most important suppliers to control them, these have stakes in their key suppliers, thus controlling them, and so on (ibid.).

Even if the vertical Keiretsu resemble the Zaibatsu, dissimilarities exist. Like horizontal Keiretsu also vertical Keiretsu are characterized by the crossholding of a small number of shares among the member firms. Analogously, the sum of this shares guarantees the majority stake and thus control of the Keiretsu over every single member firm, meaning the prevention of eventual hostile takeovers. Another significant difference is that in industrial Zaibatsu the apex company managed the operations of all the other member companies of the Zaibatsu. This is not the case in a vertical Keiretsu. Its member firms are connected just to collaborate and take decisions collectively to those which are immediately over and under them in the pyramidal structure. The connections in a vertical Keiretsu are much stronger than that of a Zaibatsu because only those that are part of the assembly process, which produces the final good of the apex company, are members of the Keiretsu (ibid.).

This allowed the decentralization of the planning process, that was not possible in Zaibatsu because member companies were often not part of the assembly process and sometimes actually part of a completely different industry (ibid.).

Not every company was part of a Keiretsu in pre-war Japan. Independent companies existed. They were never widely held, meaning that they were narrowly held or private. Frequently the family which had founded the company had a majority stake and thus controlled the company (ibid.).

1.5.3. Strength and weaknesses

Both Zaibatsu and Keiretsu often outlived independent companies and were frequently more profitable. This means that they must have been characterized by some kind of competitive advantage (Morck and Nakamura, 2005).

One type of competitive advantage might have been economies of scale and scope, which Keiretsu and Zaibatsu were able to secure due to their broad organizational structures. However, those economies have not been the cause for their formation. Until the nationalization during the military build-up, the Zaibatsu remained quite small. Keiretsu instead were primarily established to safeguard the companies from hostile takeovers, rather than to achieve economies of scale and scope. This applies particularly to horizontal Keiretsu. Notwithstanding these groups were able to secure some economies of scale and scope (ibid.). Nonetheless, it has to be considered that these economies entail also various disadvantages. One of these are the agency problems (Jensen and Meckling, 1976).

Even if some of this issues are reduced in Keiretsu and Zaibatsu due to the common presence of a majority shareholder which controls the company this just creates different agency problems. Typically, these groups had to deal with the fact that these shareholders were more concentrated on their own goals rather than that of the company and acted accordingly. Additionally, another problem which could occur was that these shareholders transferred profits and assets of the firm to themselves (Morck, Stangeland, and Yeung, 2000). To be able to exploit economies of scale the most, innovation is fundamental. Indeed, several Zaibatsu imported technologies and were able to expand quickly. This was potentially the reason for the rapid growth of these groups (Murphy, Shleifer, and Vishny, 1989). This was not the case for Keiretsu. The presence of economies of scope was superior in vertical Keiretsu than in horizontal Keiretsu. Also, in Keiretsu the problem that shareholders transferred profits and assets of the firm to themselves, called tunnelling, existed (Morck and Nakamura, 2005).

Economies of scale and scope could also result from the presence of exceptional managers and employees. Zaibatsu effectively hired superior executives and specialists (Morikawa, 1980, pg. 16–19). The same was valid for Keiretsu as they guaranteed lifetime employment and were thus a popular employer for the most brilliant Japanese graduates. Economies of scale and scope might have also originated from the centralization of capital distribution of the group (Morck and Nakamura, 2005).

The bank of the group might be able to allocate capital more efficiently than an outside bank because it knows the member firms very well and has thus more information about the single opportunities of investment which each firm has. The group bank is thus able to allocate the capital surplus of certain member companies to those which it need it the most. External sources of capital are typically more costly than internal ones because they depend on cost and demand fluctuations in each industry and because an external capital provider bears a higher risk than an internal one due to a higher information asymmetry. Evidence suggests that this argument is valid for several Keiretsu but not for Zaibatsu. The collapse of many Zaibatsu during the era of depression underline these results (ibid.). Yafeh (2004) shows that instead of allocating financial sources to the best performing companies these were often used by Keiretsu to save troubled companies from bankruptcy. This means that the financial institutions of the Keiretsu had not the role to distribute funds in the most efficient way but rather that of co-insuring all member firms. This practice sustained inefficient corporate governance (Morck and Nakamura, 1999).

Additionally, it encouraged inefficient governance in the group banks and thus let to financial crisis in Japan in the 1990s. The business history of Japan gives us enough reasons to state that a group bank should not be used as provider of capital or guarantor of financial insurance. Despite the short-term returns this grants, the long-run hazards are huge. The group banks of Keiretsu performed extraordinary well during the upturn of the economy after the war but are in serious trouble since the beginning of the economic decline. The same is true for the organ banks of several Zaibatsu which in the short run were profitable but became insolvent as the economy experienced a serious downturn. To recapitulate the advantages of economies of scale and scope for Zaibatsu and Keiretsu must be carefully weighed against the expenses which these structures demand (Morck and Nakamura, 2005).

Another interesting consideration to be made is that in the case that groups do not grant a general advantage, they might provide it in some specific conditions to Japan at certain stages in the history. If this argument is true, then the persistence of group structures may be explained by the dependence of corporate development on past experiences (ibid.).

This consideration relates to the argument that the collaboration in the member firms of a group decreases costs (Fruin, 1992, pg. 101) and that Keiretsu have an information advantage over independent firms. This ideas however assume the presence of a fragile corporate environment. The assertion that after the U.S. occupation executives of the Keiretsu pushed to undermine independent corporations underlines this idea (Morck and Nakamura, 2005).

Keiretsu were thus able to weaken the market to gain institutional control. This prevented various control techniques, as proxy fights, from functioning. It is relatively sure that the group banks and main companies of the largest horizontal Keiretsu promoted the repression of the debt market after the war. This might have led to an economic decline of several independent firms and provoked the formation of groups (Morck and Nakamura, 2005).

A further argument is that Zaibatsu and Keiretsu did not serve the entire economy but just the controlling shareholder. This majority shareholders often became managers of the company and had several additional benefits as housing and vehicles with a driver. They thus gained utility, meaning private benefits, from their control rights in large corporations. The magnitude of this utility is linked to corruption. This means to achieve this utility the majority shareholder has to appropriate resources of the corporation. Due to the high private benefits which controlling shareholders of Zaibatsu and Keiretsu obtained, it was fundamental for them to maintain control. This is the reason why they appreciated the control rights more than other individuals and were thus also willing to acquire them at a higher price (ibid.).

The idea of retaining the control endlessly however lead to inefficiencies caused by the excessively risk-averse judgments which this idea provoked. The existence of private benefits guaranteed by control rights thus has apparently contributed to the establishment of group companies in Japan (ibid.).

Another possible advantage of Zaibatsu and Keiretsu is their fast reaction to change. Zaibatsu were often able to adjust their route faster than independent companies to sustain the dynamic goals of the government. Zaibatsu were able to quickly grow one company with the capital surplus of the other member firms. This enabled them to adjust rapidly their course of action and to concentrate on different targets. Since Zaibatsu were usually large groups of companies, they had much more capital available than independent companies and where thus capable to commerce in unfamiliar industries very rapidly. Also, Keiretsu which developed after the war often supported the government in enforcing new policies (Komiya, Okuno, and Suzumura, 1988; Okimoto, 1989). This ability to change quickly has not always been a blessing for Zaibatsu and Keiretsu (Morck and Nakamura, 2005).

The losses of the Zaibatsu which accumulated during and after the war have been huge regardless of their ability to increase the production of weapons heavily (ibid.). In fact, Zaibatsu concentrated almost exclusively on the fabrication of munition thus disregarding the other value creating businesses (Morck and Nakamura, 1999).

In the long-term this behaviour costed the groups a lot. Similar conclusions can clarify the shortcomings of Keiretsu today (ibid.).

A last possible advantage explaining the superiority of corporate groups in Japan are the devoted relations with the government that the groups had. These may have caused financial gains superior to the losses suffered to sustain the changing goals of government policy. Relationships between corporate groups and the government in Japan often implied rent-seeking (Morck and Nakamura, 2005). Ziabatsu were often able to secure favours of the government thanks to their relations (Morikawa, 1992, pg. 3–4). This was also one reason for the success of the main Zaibatsu over their competitors. They managed to flourish before the war due to their capability to support the government in everything it desired. Every time the government decided to take a different direction, the Zaibatsu expanded in the necessary business to sustain the new policy (Morck and Nakamura, 2005). Also, Keiretsu have been subsidized by the government for their support of new policies (Okimoto, 1989).

Both Zaibatsu and Keiretsu succeeded faster in giving the government what it desired than independent companies. This guaranteed these group companies power over politics and subsidization. Especially the possibility to influence politics granted Zaibatsu and Keiretsu regularly sustainable competitive advantages (Morck and Nakamura, 2005). However, the rent-seeking produced and emphasized various deficiencies since skilled people instead of focusing on the well-being of the enterprise concentrated on more profitable career paths enabled by rent-seeking. This behaviour obstructed the growth path of the corporate groups. In the end rent seeking produces economies of scale for workers and the company but switching the attention of skilled people toward constantly more profitable activities moves important resources to activities which in the end produce no or even a negative return. As a consequence, growth diminishes (Murphy, Shleifer, and Vishny, 1991).

Due to the existence of Keiretsu several industries in Japan are not defined by intense competition as it is the case for most American industries. Most Japanese industries are instead an oligopoly. In fact, Keiretsu favour markets which are not characterized by fierce competition. This is because many companies have a stake in other companies. In the end every company is "owned by [the] society" each one is in some way related to the others. This encourages cooperation when one company struggles to survive. That also applies to competitors and thereby fierce competition is prevented. In Japan, a firm has to contribute to the well-being of the society. Whereby by society are often firstly intended the workers and secondly suppliers and clients (Sullivan, 1992).

The principal motive for the establishment of Zaibatsu and Keiretsu was the preservation of control rights and thus of corporate governance of the controlling families for the Zaibatsu and of the executives for the Keiretsu (Murphy, Shleifer, and Vishny, 1991).

From 1868 Japan's corporate history is characterized by a series of changes. First firms were controlled by families and had a pyramidal structure, these were called Zaibatsu. Then the whole corporate sector was governed by a central planning system. Afterwards it was rearranged, and corporations emerged. Lastly it was reorganized into groups of companies, called Keiretsu. Zaibatsu did not exist exclusively in Japan but were typical in several countries. Keiretsu instead were exceptionally formed outside Japan (ibid).

2. Japanese management

A Japanese company has two functions: to seek the maximization of returns and to constitute a collective society for all those who work inside the company and thus be able to adapt quickly to changes in its environment. The primary goal of a Japanese company is thus not the accumulation of profit as it is usual for companies in Western countries (Nagano, 1996).

In Japan it is crucial for an enterprise to be flexible to adjust and thus fulfil the requirements of the society by contemporaneously securing a living and employment to all its workers. The Japanese often identify, in the company they are working for, their community. Both executives and employees identify with the company as it would belong to them (ibid.).

Japanese management techniques have been heavily influenced by Western practices. Actually, these have often been tried to imitate by innovating them.⁵ In fact a large part of the success of Japanese companies is ascribed to the fact that they have always been "an effective borrower rather than a creative innovator". This has not only been the case with recent Western ideas. In the past Japan adopted the beliefs of Confucianism from China (Fukuda, 1986). However, Japan always tried to safeguard its culture and its economic independence from other countries, thus restricting imports as far as possible. Well-known management practices typical for Japan are lifetime-employment, seniority system, enterprise unions, standardized work routines, total quality management, decentralized and collective decision-making and internal training of managerial talent.⁵

Japanese companies usually do not hire an employee to perform a specific role, as it is common in Western countries. In Japan it is fundamental that employees are adaptable. They are trained by middle- and senior-level management, not to take charge of a specific occupation but to work in the best interest of the company. The internal training is connected to one of the three pillars of Japanese management, namely lifetime-employment. This guarantees that investing in in-house training is profitable in the long-term. If Japanese companies were not characterized by lifetime-employment it would be highly risky to invest in this long-term training because after his formation an employee could simply leave the company to accept another maybe better remunerated job and thus the return of the investment would be negative. Lifetime-employment guarantees that this will not occur, because if an employee leaves the company to accept another job in a different firm he will begin as a trainee and thus get a much lower remuneration than before (ibid.)

⁵https://www.referenceforbusiness.com/encyclopedia/Int-Jun/Japanese-Management-Techniques.html

Training of managerial talent in Japan is characterized by job rotation. Related to lifetimeemployment is another pillar of Japanese management, namely the seniority system. This causes Japanese senior managers to be older on average than Western ones (ibid.).

Japanese management is much more long-term oriented than Western management. This is also reflected in the sources of financing used by firms. In Japan companies rely much more on long-term debt than on equity to finance their ongoing business operations. This results in lower orientation towards the maximization of short-term profits to satisfy shareholders (ibid.).

Both, seniority-based wage system and lifetime-employment, together with the identification of employees with the philosophy of the company for which they work and their confidence in group work, are deeply connected to cultural standards and are often seen as the cultural base of the management in Japan (Fukuda, 1986). Differently than in Western countries, in Japan the self-evaluation of individuals depends on their relationship with others, rather than the definition of themselves. In Japan, people that are and behave differently than the majority of a group are normally criticised and disapproved (Kobayashi et al., 2010).

Of crucial importance for group members are consensus and cooperation. In the Japanese culture the group affiliation is much more relevant than the identification with a certain profession. This view of the Japanese strengthens the seniority system and lifetime employment. Thus, the distinctive culture of Japanese corporations raises loyalty to the group, creates a system in which employees mutually support each other, prevents individualism, and creates an environment which inspires people to continuously outperform (ibid.).

Various aspects of Japanese management techniques have been defined following WW II and plenty of them have their origin in the US (ibid). It was not unusual that Japanese companies replicated the technology employed by American firms through licensing agreements to prevent the necessity of high R&D investments. Their goal was not to invent completely new products but to enhance the quality and accuracy of already existing ones. During this continuous improvement process the elimination of waste was of fundamental importance.³

Japanese companies are replicating American management techniques since the beginning of the twentieth century. In the time span between WW I and WW II various profitable enterprises endorsed scientific management standards. During the 20 years following WW II Japan imported nearly every leading American management standard. Those however, resulted to be effective just after significant adjustments had been made (Dobi and Bugàr, 2008).

In Japan imitation is seen in a very different way than in Western countries. According to Confucianism it is an honour to be imitated and it is reputable to imitate. In fact, this view is deeply anchored in the Japanese culture. Even the sensei taught his pupils by showing them exactly what to do. They had then to imitate the sensei until they became as good as him and thus turned themselves into a sensei (ibid.).

In Japan management is seen as the benign employment of power to encourage balance and discipline. The purpose of management is thus to build control that is approved by the society and to generate prosperity for the society as a whole. Sometimes this view of management is implemented in Japanese companies by the employment of power to guarantee the control of the workstations in order to ensure the requirements of the society (Sullivan, 1992).

In America, the focus of managers is the maximization of profits, in Japan instead it is the maximization of order. Japanese managers often perceive that their course of action significantly influences society and thus they feel responsible for its well-being. The society, in this case the subordinates, are aware that the control that the manger exercises is beneficial for the society and thereby acknowledge the decisions and actions of their superiors without continuously negotiating. This grants Japanese manager much more freedom in the decision-making process than managers in Western countries (ibid.).

The society, which corresponds to the group, thus to the members of a company, is seen similarly as the family in Western counties. This is because it is the group of which a typical Japanese is part of and commits his life to. This concept of seeing the company members as family, called ie, can be traced back to the rice farming as described earlier. Even if the importance of ie has slowly declined, also due to the import of Western practices, after WW II the concept of ie has still been relevant for the establishment of Japanese companies (Kobayashi et al., 2010).

Japanese management standards are characterized by the superiority in managing the manufacturing process, quality circles and control, a long-term horizon for planning activities and collective decision making (Keys, Denton, and Miller, 1994).

During the first years after WW II Japan faced various issues as expenditures for war damages, a high unemployment rate, a reduction in production output, the failure of various corporate groups and immense inflation rates (Olenjniczak, 2013).

Due to several cutbacks security of employment had become highly desirable in the subsequent years. Since 1950, due to the alliance with the U.S. during the Korean war, Japan's production volumes climbed to that before the war. Thanks to the import of production technology from abroad, increasing internal trade volume and the greater number of loans granted Japan's economy flourished (ibid.).

During the 50s the Japan Committee of Economic Development was formed. The Committee instituted the productivity movement which was encouraged by the government. A crucial goal of the movement was to empower unions in order to increase exports. The collaboration of the workforce in matters of quality checks and adaption of new technologies was fundamental. In return the unions reached the approval of wage increases and employment security. However, the relationship between employees and management, which was characterized by confrontations and conflicts, did not fundamentally change until the 1960s when both accepted and understood that working together benefitted the company and the workforce (Gao, 1998).

There exist three theories explaining this change in relationship:

- 1. The economic theory is built upon the significance of efficiency as driving factor for this development. The structure of a company changes when the current one does no more guarantee cost minimization. This can lead to the rise of hierarchies to manage business affairs when the expenses relying on market actors for these transactions become too high. The goal is thereby to minimize transaction costs and to boost efficiency. As with the application of lifetime employment and the seniority system the internal labour market in a company gained always more importance, it got easier for employees to get higher wages and be promoted. This increased their devotedness. It was now much more difficult for workers to change the company they were working for. This enhanced group affiliation and collaboration, which in turn benefited the company as employees became more efficient (Gao, 1998).
- 2. The *cultural theory* ascribes the causes of change to cultural effects. At the end of the 1950s some employers tried to advocate harmony to adjust the relationship between management and workforce. This approach was not remarkably effective because it was not supported by the enterprise unions as it did not resolve the problems of unemployment and poor wages. Cultural effects resulted indeed to be important to managers for finding the right direction, but they did not actually cause the change in conduct of management and employees (ibid.).

3. The *political theory* highlights the importance of "interest, power, and control." The aim of every company is to excel over its competitors. An effective way to accomplish this is to set up an adequate incentive system that causes the collaboration of the whole workforce. It is crucial that the chosen system is characterized by fairness in the allocation of economic benefits to guarantee this collaboration, otherwise the risk of refusal to cooperate could arise. This in turn would weaken the company's competitiveness. To ensure the unbiased allocation of economic benefits various companies tried to safeguard employment security. In the last years of the 1950s a majority of firms prevented discharges by adopting job relocation. Before the 1950s the government supported corporations whenever they had a conflict with labour unions by obstructing the creation of new unions, illegalizing strikes, and compromising the bargaining power of unions during negotiations. During the 1950s the situation of the workforce began to be seen as a social issue by politicians and they shifted from supporting private companies to encouraging permanent labour relations. During the 1960s demand exceeded supply in the labour market in Japan. Thus, a lack of manpower occurred. The establishment of the seniority system and lifetime employment was thereby not just a way to fairly allocate welfare benefits but first and foremost an approach to guarantee the retainment of precious, highly skilled employees (Gao, 1998).

The seniority system and lifetime employment are not stipulated in any written arrangement (Cole, 1972). They are individually instituted social procedures observed by the employers as a result of the fear of reprisal by the workforce (North, 1990). The relation with the employer is maintained due to the observation of "norms of trust and reciprocity" (Kalleberg and Reve, 1993, pg. 1129). In every theory lies some truth, but there is not a single one which is able to explain the reason of adaption of the Japanese management system without the others. All three theories are complementary to each other (Gao, 1998).

During the 1960s the Japanese economy continued to proper as a result of the order inflow by the U.S. caused by the Vietnam war. Differently as during the Korean war Japanese goods were exported to the U.S. where the demand exceeded supply for various products (Olenjniczak, 2013).

Between 1955 and 1970 the GNP of Japan rose annually. Also, the years of schooling on average increased. This caused a higher qualified workforce. Additionally, the amount of companies grew and thus also the number of managers did. (Tsuda, 1977).

The Japanese management system has not just been influenced by the unique Japanese culture but also by institutional and environmental determinants. The destiny of an employee is clearly linked to that of the company for which he is working for. This is due to the high dependence of the employee on the company, the restricted possibility of workers to coordinate themselves and the existence of former standards, ideals and values which strengthen the power of managers (Cole, 1979, pg. 242-250).

Considering that the Japanese management system has been affected also by ecological conditions it becomes evident that if these conditions should change, the effectiveness of the Japanese management techniques could not be guaranteed (Cool and Lengnick-Hall, 1985).

There exist different Japanese management strategies that are deemed to constitute a competitive advantage. The most known are Kaizen, Total Quality Management (TQM), and Lean production (Yokozawa et al. 2009).

The Japanese management system can be divided into 3 distinct levels:

- 1. *Philosophy*: This level derives from the unique Japanese culture and history that differentiate the Japanese management system from that of other countries. This level comprises long-term orientation, teamwork, trust, the importance of the well-being of the company, unity in decision making and concentration on the development of HR.
- 2. Strategy: This level comprises Kaizen, Total Quality Management and Lean.
- 3. *Technique*: This level includes all techniques which are fundamental to accomplish the aims of the strategies. It comprises quality circles, JIT, OTJ, autonomation, Plan-Do-Control-Act (known as PDCA), 7 muda analysis, poka yoke and 5S (ibid.).

In Western countries management is characterized by managers which are responsible for the whole decision-making process and the workforce for the implementation of these decisions. The Japanese management instead has a stronger confidence in the suggestions of the workers and executives have the function to collect and arrange these (Nagano, 1996).

The Japanese management system can be distinguished from other management systems also thanks to the extreme importance of the involvement of employees in the company by making suggestions and thus actively contributing to achieve business strategies (Wood, 1989). This involvement is strengthened by the three sacred treasures of Japanese management.

2.1. Three pillars

Japanese managers are dependent on the so-called "three sacred treasures" or "three pillars" (Nakamura, 1993). This sacred treasures reinforce the Japanese HR management system and are built on Buddhist and Confucian standards (Keys, Denton, and Miller, 1994). These are lifetime employment, seniority-based wage system (called also nenko) and enterprise unionism. Compliance to these 3 pillars is usual for jobs performed by men which are between 25 and 54 years old and work for large companies. For jobs performed by foreign or older employees or women this is rarely the case (Nakamura, 1993). This means that the three pillars applied just to a small portion of the workforce employed by big corporations (Morris and Wilkinson, 1995).

James C. Abegglen is known as the "father of Japanese management" because he was the first one that recognized the uniqueness of the Japanese management system. He was in fact the person which identified the 3 pillars of Japanese management. These remain even today the primary characteristics of the classical description of Japanese management (Olejniczak, 2013).

During the years between the 1950s and the 1970s, after WW II, Japan was reconstructed. This resulted in an accelerated advancement of Japan's economy (Hsu, 1999). Exactly during this period, in order to be able to compete with the Western countries, Japan incorporated the three pillars as the three primary management practices. These reinforced economic expansion and were adequate from the perspective of the expenditures for a company. Whenever an enterprise expanded it had access to an increasingly higher number of cheap young employees. Thanks to the seniority system these workers represented cheap labour which enabled the company to restrain labour costs. Because quitting was no valid option for employees, companies spend almost no money on training substitute workers. This guaranteed also that skilled employees would not leave and thus talent retention was much easier than in Western countries. All this contributed to a long-term horizon and greater simplicity of the HR planning activities. It made the Japanese management system excel in cost-efficiency. It also emphasized work motivation, loyalty, teamwork, long-term horizon, a suitable work climate, and collaboration among employees (Firkola, 2006).

Nevertheless, the system was also associated with various drawbacks. It was not functioning well in companies that were not characterized by continuous growth patterns. These companies usually stopped at a certain point in time to employ newcomers. This means that over time their existing workforce continued to advance in terms of seniority, causing constantly rising labour expenses (ibid.).

Lifetime employment made it difficult for companies to lay off their most highly paid employees. This meant that the Japanese management system was efficient only for companies experiencing economic growth. For those suffering an economic decline the system was highly inefficient, also because it gave a company no possibility to adapt rapidly (Firkola, 2006).

Also, employees were not spared by the drawbacks of the system. They often had to rely so much on the company for which they were working for that they were under the complete control of their employer. It was highly troublesome to quit if an employee felt miserable in his position. Additionally, employees had to devote their whole life to the company, meaning also to work extra hours, thus losing time which would have been at disposal to their loved ones (ibid.).

2.1.1. Lifetime employment

In Japan dismissals were carried out almost never, besides under drastic conditions (Nakamura, 1993). Japan was however not the only country in which lifetime employment was existing. It was quite common that countries governed by the military or characterized by state government resorted to lifetime employment. The difference between Japan's implementation of lifetime employment and that of those other countries was that in Japan it was diffused in almost all companies, especially in the big ones. Additionally, no arrangement was laid down in writing, meaning that the employees had no signed guarantee that they had a job until they superannuated. It is nonetheless essential to mention that not every Japanese labourer could profit from the benefits of lifetime employment. Usually just Japanese men, which graduated from university or high school and were working in big enterprises, obtained lifetime employment (Firkola, 2006). Lifetime employment was usually granted to prospective managers (Jackson and Tomioka, 2004, pg. 132). This benefit was thus conferred to the most important members of the workforce because those where seen as a key strategic asset of the company (Mueller, 1998). Even if the formalization of this benefit occurred rarely, it was supposed to be conceded (Jackson and Tomioka, 2004, pg. 132).

During the first years of the Meiji period lifetime employment was almost non-existent. It was originally instituted during the Edo era. At the beginning it was applied just to white-collar workers, then it was extended also to blue-collar workers (Nagano, 1996).

Due to this pillar the job-seeking in Japan was fundamentally different than in Western countries. Young Japanese looking for a job were not chasing a certain position, but their application was heavily influenced by the company they were applying to. Lifetime employment in Japan created some kind of win-win situation: the company obtained a candidate that concorded to keep working hard until his retirement and the applicant had the certainty that the company would secure him a long-term job (ibid.). Additionally, this pillar was of fundamental importance for Japanese workers because, unlike in Western countries, in Japan no pension scheme or social welfare systems existed (Olejniczak, 2013). Lifetime employment assured Japanese workers the guarantee of getting a fixed income which was fundamental due to the absence of a social safety net. In return employees provided the company with devotion and engagement during their whole career path (Jackson and Tomioka, 2004, pg. 91).

Lifetime employment has a serious influence on training and advancement of new recruits (ibid., pg. 132). It guarantees that newcomers are all equal, in the sense that they all have no previous experience and can be formed as needed (ibid., pg. 136).

A theory states that workers which have a substantial interest in the company they are working for, are characterized by a deeper identification with the companies' needs and success. This leads to a stronger motivation to push individual performance to its limits, causing the advancement and creation of skills. Thereby this motivation is not solely driven by the ambition to realize personal benefits (Dore and Sako, 1998).

Benefits

For the employees, the main benefit is job security (Firkola, 2006). Both workers and companies can rely on a stable work relation. Companies are thus more inclined to devote time and money to human capital, such as training. In fact, in Japan more capital is invested in training than in the U.S. (Nakamura, 1993).

Workers can be positioned in a much more flexible and effective way due to the adoption of job rotation to improve multi-tasking skills (ibid.). Without lifetime employment the disadvantages of the use of job rotation would prevail over its benefits because there would exist the risk that the employee leaves the company and thus the money and time spent to strengthen the workers multi-tasking skills and his flexible employability would be lost. Thus, without lifetime employment the returns from job rotation would probably be negative. Another benefit of lifetime employment is that new technologies which improve productivity can be implemented without creating many anxieties to the employees about cutbacks (Nakamura, 1993).

The long-term view of the Japanese management is reinforced by the practice of lifetime employment. Furthermore, it is beneficial to the Japanese government as it reduces the risk of excessive unemployment rates and prevents events of public disorder (Jackson and Tomioka, 2004, pg. 132). Lifetime employment induces the relationships between employers and workers, and between management and workers to be much more harmonious than what is usual in Western countries. This is caused by the realization that employees will spend their whole career in the same company working with the same people (Brown, 1966).

Drawbacks

Lifetime employment does not comprise only benefits, but also drawbacks. It narrows down the career path, leading to a reduction in performance incentives of the workers. This drawback is caused by the fact that due to lifetime employment a worker is expected to stay his whole life in a single company which poses various limitations on his prospects (Jackson and Tomioka, 2004, pg. 134).

To be able to ensure lifetime employment it is fundamental that companies have the possibility to adapt during recessions. The prevention of cutbacks during difficult times is accomplished thanks to the modification of payroll expenditures. Practices to implement this reduction comprise the adjustable positioning of the workforce, incrementation of working hours, utilization of non-regular employees and salary alteration. To understand the functioning of salary alterations it is crucial to be aware that the salary in Japan is composed of two components: the fixed monthly payroll and bonusses (Nakamura, 1993). The fixed monthly salary is usually just enough to guarantee the payment of the absolute necessities of life of the worker (Oh, 1976). The magnitude of both components is determined yearly during discussions between the enterprise union and management and is depending on the performance and economic condition of the company during the last year. This dependence is the reason why the payroll expenses of a Japanese company adapt in response to the shift in its economic situation. In Japan bonus payments are one component of the worker's salary package. This holds for all employees and not just for managers, as it is typical in Western countries. The skills of an employee also increase the fraction of bonusses to the total wage. The yearly variation of bonusses is much higher than that of the ordinary salary. This allows a company to adjust salary expenses thus sharing the risks of changes in the business situation with its employees without recurring to cutbacks. The incrementation of working hours of regular staff is employed to match fluctuating demand. This is much cheaper in Japan than in the U.S. because the mandatory premiums are a lot lower. Only regular employees benefit from lifetime employment, non-regular ones can easily be laid off during downturns. This leads to a reduction in the payroll expenses when needed. Part-time workers belong to the group of non-regular workers. These are also readily employed together with overtime when the demand conditions improve. The adjustable positioning of workers is especially employed during downturns. As such, employees can be relocated geographically or instructed to carry out different activities. This variable deployment of employees is possible because salaries are not depending on the activities an employee carries out but are allocated to individuals (Nakamura, 1993). Even if the possibility of layoffs is limited due to lifetime employment labour expenses are not that fixed in Japanese companies as they could seem. The absence of a regulated retirement system causes them to be much more variable than they are in most Western countries. Additionally, during downturns mass layoffs of non-regular workers are exploited (Drucker, 1971). During recessions it was not unusual that regular workers which could not be fired were relocated to one of the suppliers of the employer (Gerlach, 1987).

2.1.2. Seniority system

In Japan, the years of work performed are seen as directly related to the expertise and know-how accumulated by an employee. According to the seniority system an employee is given a higher remuneration the longer he stays in the company. This means that the wage is not influenced directly by the age of the worker, but by the years worked for a single company. Thus, the change of job becomes undesirable as beginning to work for a new company means to start from scratch as a recruit. Career advancement depends on the years worked for a company and is usually moderate and restricted during the first years of the career path (Firkola, 2006). An important characteristic of companies that apply the seniority system are the significant welfare-benefits that workers obtain. Some of these companies even ensure retirement payments (Oh, 1976).

Nenko began to be adopted steadily after WW I. This was the period during which the factory system continuously grew and caused the necessity of a larger workforce and their retention. This was achieved thanks to two operations:

- Workers were directly employed ignoring if they had the necessary skills or experience. They were trained inside the company. This ensured the development of industry and sometimes even company specific skills. It made it much more difficult for workers to change employer.
- 2. Companies made the salary dependent on the years of work inside the company. The first decades an employee spent inside a company he was underpaid. Afterwards he was overpaid. To obtain the whole amount of salaries that a worker was entitled to, he had to stay working for the same company until he retired.

This two methods were effectively implemented to restrain employees from changing employer. Until shortly before the beginning of WW II however lifetime employment was not allocated to workers. In fact, during downturns it was common practice to make use of layoffs. The seniority system put a ceiling on pay rises as they directly depended on service length. Instead of granting higher salaries Japanese firms made use of bonuses and welfare benefits (Oh, 1976)

This pillar reinforced lifetime employment making it suitable for young employees to be loyal to the company because with seniority their wage would increase, and it prevented senior skilled employees from shifting to another company. The Japanese education structure was inefficient, not being able to cope with the continuously changing adaption of technology by the companies (Olejniczak, 2013).

The seniority system encouraged with higher remuneration those individuals which steadily grew their know-how inside the company. It is true that the wage differentials between the older workers and the younger ones would probably have been seen as unjustifiable in Western countries, but this wage policy was needed in Japan due to the absence of pension systems and social welfare schemes. It is of fundamental importance that it is not just the years which an employee stays within a company that determine his remuneration, but also his know-how is regularly evaluated (ibid.).

The seniority system caused the Japanese management system to be characterized by hierarchical relationships and rigidity, depending on seniority. It contributed to the creation of a highly involved workforce in the company. Members were greatly interdependent. The seniority system was highly efficient granting several benefits to employees and companies. However, the majority of the Japanese workers were precluded from this system as it was operational only in the biggest Japanese companies and applied to a small fraction of the entire workforce. This large corporations constituted not even 1% of the Japanese companies. Just one third of the Japanese workforce was employed in a company which applied Nenko. The application of the system to only a small part of the workers seems to be the reason for its continuation. If Nenko would have been applied to all workers employers would have incurred the risk that their payroll expenses would have gotten out of hand. The possibility to restrict the number of Nenko workers ensured the employment of "temporary, subcontract, daily, and retired workers". This two-fold seniority system created a "dual wage and labo[u]r market structure". Employees in SMEs gained a lower salary than those working in a large corporation applying the seniority system and they had also to work more hours (Oh, 1976).

Temporary workers were employed during periods of economic upswing or demand increases. They were generally paid only half the salary a regular employee earned (Nakayama, 1973). Almost always women were deemed to be temporary workers (Drucker, 1971). As all temporary employees they got no bonus payments and did not have a secure employment. Daily and subcontract workers were those which were borrowed by big companies but actually employed by SMEs. This subcontract relations often had a pyramidal structure by which SMEs borrowed employees from even smaller SMEs to provide them to large companies. Subcontract workers have a much lower rank than the temporary workers because they do not have necessarily any skill. Their pay is even inferior to that of the temporary employees (Oh, 1976).

Hiring a subcontract employee is even cheaper because direct employment is bypassed and thus responsibility for the worker lies with the SME. Moreover, hiring costs do not accrue. The retirement age in Japan is much lower than in Western countries. Especially employees that benefited from the seniority system usually retire necessarily at 55. The root in this early retirement lies in Nenko: At the age of 55 the salary of workers reaches an amount that would no longer be sustainable, thus they have to retire. However, after having retired they can still be employed but will be gaining a lower salary and getting yearly contracts (ibid.).

Benefits

Due to the fact that employees are evaluated depending on their career progress they have a longer-term view regarding performance. Employees do not have the same boss for their whole career, but various supervisors that evaluate their performance over a longer time horizon. This reduces the possibility of unfair and discriminating judgements (Nakamura, 1993). Additionally, the seniority system guarantees that aged employees do not have to be afraid to lose their position due to newcomers. This facilitates the share of know-how and experience of the senior employees with the recruits. It is commonplace that workers with the same age at entry are promoted together. This fosters collaboration among the group. Additionally, the rising remuneration with seniority is related to the increasing capital requirements during the employees' various phases of life, like for the wedding, children and purchasing a house (Firkola, 2006). This pillar increases the loyalty of employees towards the company they work for because if they would move to another one, they would never get a salary as high as their current one. It also strengthens the worker's motivation to boost performance as also know-how is assessed before assigning an advancement.

Drawbacks

The limitation of mobility of workers between companies is a benefit for the companies, but a drawback for its employees. Nevertheless, this causes workers to be more attached to their firm and often to develop company specific know-how. Companies applying Nenko provide workers with retirement benefits that can be a lump-sum payment depending on the last salaries before retirement and the years worked for the company or monthly payments (Oh, 1976). The lump-sum payment usually comprises "about two years of full" salary (Drucker, 1971). This amounts are usually not high enough to guarantee a living until the pensioner dies and thus, he has to continue working for a lower wage to make a living (Oh, 1976).

Because the retirement benefits are almost never high enough to guarantee a living after retirement most retirees become temporary workers often doing the same work as before but being paid less and losing job security. The reasoning behind this circumstances is that if a pensioner would lose his job, he would still have the retirement payment as a cushion to move on (Drucker, 1971).

What some see as an automatic consequence of the seniority system is that detection and improvement of skilled workers is obstructed and that it enables also unqualified individuals to become managers. Actually, this is prevented by firms applying the seniority system just at the outset due to the extremely rigorous applicant selection. Applicants are usually chosen from the highest ranked universities and have to pass difficult entry examinations. Before being admitted to those they have to disclose their whole life, including information about school records, work experience, family and acquaintances inside the firm that would vouch for them. It is also worth to mention that the whole school sector in Japan is focussed on talent generation. During their academic career students have continuously to pass various exams to be admitted to the best schools and universities. Even to join a good kindergarten children have to excel in these tests. In the end big companies employ only highly intelligent and skilful recruits (Brown, 1966).

Actually, the recruitment of extremely talented workers which competed for the job with other thousands of aspiring recruits empowers Nenko because if each worker has been employed in the same way (which is the case in the big corporations) then the whole workforce would be constituted of extremely capable individuals and it would be logical to link pay and promotion to knowledge accumulated during the years of service (ibid.).

2.1.3. Enterprise unions

Enterprise unions in Japan are arranged around an individual enterprise. This results in unions including all various plants and departments of a company (Oh, 1976). This means that there is no distinction between the various job types. Every full-time employee under the position of department head working at a specific plant belongs to the same enterprise union. Middle-and higher-level managers and part-time employees are no union members (Firkola, 2006). All non-regular workers are denied the membership (Tsuda, 1977). It were the Allied Forces during their governance at the beginning of the 1950s which had a crucial influence on the structure of the Japanese enterprise unions. They outlawed the trade unions present at that time which were guided by socialists. This resulted in a new type of trade unions governed by activists seeking to cooperate with the management (Olejniczak, 2013).

This new enterprise unions which developed after WW II ensured a significant change in the treatment of employees: workers benefiting from Nenko could no more be laid off as before. They now benefited also from lifetime employment and could not be discharged during ordinary downturns. This job security increased group affiliation among these workers. Additionally, enterprise unions opposed the proposal of direct dependence of salary on knowhow and performance to protect Nenko and thus the older employees. The organization of the enterprise union usually mirrors that of the company. Employees that do not benefit from the seniority system normally are not part of a union (Oh, 1976).

The relationship between management and workforce in Japan is not that hostile as in Western countries. In fact, many higher-rank managers in Japan have previously worked for an enterprise union. It has to be said that differences in income between managers and simple employees are not that large as in Western countries. In addition, manager trainees begin their job by operating production lines. Enterprise unions in Japan have "open membership policies". All this supports the cooperation between management and enterprise unions. Members of enterprise unions is usually granted lifetime employment. This assures that employees are more eager to embrace technological changes than their Western counterparts.⁴ Distinct from other countries, in Japan unions do not have only the function to conduct collective negotiations, but also to actively contribute to the formulation and accomplishment of the various business strategies of the company. The relationship between unions and the company is more similar to a collaboration than to a confrontation (Firkola, 2006).

The primary task of the unions is the negotiation of the so-called "spring wage offensive", alias "Shunto". This determines the pay rise which workers get every month for the following year. It is true that employees demand a higher remuneration through unions, but in return they refrain from employing walkouts or putting forward claims which would harm the company (ibid.).

Benefits

It is easier for unions to claim a higher remuneration than it is for a single worker. The career path of promising managers could include a job at an enterprise union. Companies often share important information with the unions regarding opportunities, threats, and performance. Thanks to this sincerity confidence and mutual goals develop. This is also the reason why employees tolerate to be paid less in difficult times without threatening to quit (Nakamura, 1993).

Because enterprise unions comprise all workers of a single company, they reduce the differences between white- and blue-collar workers. They are part of the same union and thus they are group members to each other. As a result, enterprise unions strengthen the concept of seeing the company as family or "ie" (Kobayashi et al., 2010).

Drawbacks

The open membership policy applies only to regular worker. Non-regular workers have no possibility to become part of an enterprise union and thus are excluded from enjoying its benefits (Tsuda, 1977).

2.2. Decision making

The decision-making process is influenced by a variety of elements, as the circumstances in which a resolution is made, the way in which the person that ultimately decides recognizes and interprets signals, and what he considers to be of significance (Rowe and Boulgarides, 1983). What has significant repercussions on taking decisions are the values and the intellectual awareness of a person. Values affect the assessment of issues and their unravelling, the progress of selecting, the evolution of interhuman relations, the confines of moral conduct, and the reaction to extrinsic demand and external motivating powers. About 50% of these values are shaped by "national background". This is an explanation for the discrepancies in the decision-making process between different nations. Also, the way of thinking influences these values (Martinsons and Davison, 2007). According to various studies Japanese are less concentrated on details but focus on the context as a whole (Nisbett, 2004). The Japanese see themselves as more "subjective, synthetic, emotional, and personal thinking" than people from Western countries. Most discrepancies in perception and values come from differences in cultures (Martinsons and Davison, 2007). Approaches such as command structure, collectivism and concentration on the whole are more typical for the Japanese than for the Americans due to their specified functions and relations within complicated constant welfare nets (Hofstede and Bond, 1988).

,	Task Oriented	People Oriented
	Strong need for power	Strong need for affiliation
Low	Aggressive and autocratic Acts rapidly Uses rules and intuition	Supportive and empathetic Prefers communication/discussion Uses intuition rather than data
Complexity	Directive	Behavioral
Cognitive	Strong need for achievement (in the form of challenges)	Strong need for achievement (in the form of recognition)
High	Enjoys solving problems/puzzles Uses considerable data Undertakes careful analysis	Creative and humanistic Broad and long-term focus Seeks independence
	Analytic	Conceptual
	Left brain hemisphere	Right brain hemisphere

Source: Martinsons and Davison, 2007

Values

The picture above shows the decision style model suggested by Rowe and Boulgarides (1983) which highly depends on values and cognitive complexity. The proposed model indicates that when taking a decision people are influenced by four elements: directive, analytic, conceptual, and behavioural. The basic need of behavioural decision makers is affiliation, that of directive ones is power, that of analytic ones is achievement in the shape of different challenges and that of conceptual decision makers is achievement too but in the shape of acknowledgement. Behavioural decision makers are highly people oriented but are characterized by low cognitive complexity. Their communication pattern is simple, and their main interest is the welfare of the other people. They are usually willing to accept recommendations, trade-offs and are better able to handle the loss of power than the other types of decision makers (Rowe and Boulgarides, 1983). This is in fact the decision style adopted by most Japanese managers. This result can be first and foremost ascribed to the significance of collectivism in the Japanese society. Control and accountability are commonly distributed among a number of individuals collectively in Japanese companies. This is also the reason for the participation of various layers of management in the decision-making process. This process is usually much more subjective and includes more individuals in Japan than in China or the U.S. Additionally, it also takes a longer time horizon necessary to attain consensus. This drawback has its advantages in the execution phase as this is faster and less complicated due to lower opposition. The most uncommon decision style in Japan is the analytical one (Martinsons and Davison, 2007).

The Japanese decision-making process is called "Ringi". One of its peculiarities is that, differently than in Western countries, it is a bottom-up approach. This means that in Japan it is not the management which dictates decisions autocratically but that the whole workforce is involved in the process. This type of particular process shaped the Japanese management system (Sagi, 2015).

In the majority of cultures, the power and liability to take decisions depends on their magnitude and possible effect on the company. Thus, the most important ones are usually taken by those at the top of the hierarchy. In other cultures, it is instead the responsibility of those at the top of the hierarchy to empower the right people to take a certain decision finding a satisfactory agreement for the whole group (ibid.).

The Japanese decision-making process differentiates itself insofar that its sequence is circular. This means that anyone inside this circular sequence can initiate the process. In the decision-making process prevailing in most countries the sequence is linear, and it is thus a predetermined individual which initiates the process (ibid.).

The Japanese term for their decision-making process is "Ringi" system. "Ringi" can be dismantled into two different Japanese expressions: "Rin" and "Gi". "Rin" means the suggestion of a proposition by an individual to its boss and getting his consent. "Gi" indicates careful reflection and finding a resolution. The "Ringi" system comprises rotating a proposition to all supervisors that will be affected by its resolution. It is characterized by four stages: proposal, circulation, approval, and record (ibid.).

During the decision-making process in a Japanese firm proposals are debated, worked out and fine-tuned in informal employee reunions. This type of informal consultation is a kind of preliminary discussion phase that is termed "Nemawashi". The main concern of "Nemawashi" is to clarify in a detailed manner the proposal to simplify the final resolution to be made. "Nemawashi" is fundamental as it unites as many individuals as possible with the final aim of reaching a satisfying decision (ibid.). The aim of "Nemawashi" is to derive the ultimate use of the human resources of a company and contemporaneously dividing control, which includes also trust, in exchange for suggestions. "Nemawashi" also reduces the loss of face in case the suggestion should be abandoned (Jackson and Tomioka, 2004, pg. 163).

The typical "Ringi" process begins with a proposition made by a lower-level executive. Even if the originator of the idea is a higher-level executive, he usually communicates it to someone of the junior staff which has the task to submit it. Lower-level executives have usually a better overview of the issue and thus also more knowledge regarding to it. Additionally, the initiation of the decision-making process has to be made by a manager as this is one of their core activities (Sagi, 2015).

Furthermore, this gives the first-line managers the chance to prove his management expertise. The first step of the "Ringi" system is hence the outline of a proper report by a first-line manager, called "ringi-sho", that explains the proposal. This is then handed-out to the various managers of all divisions, that would be implicated by the decision, which have to confirm it. Afterwards the "ringi-sho" has to be signed by those members which participated in the "Ringi" process (ibid.).

The manner which each individual uses to sign the "ringi-sho" implies approval, dissent, or indecisiveness. During every phase of this procedure it could be required for the creator of the "ringi-sho" to adjust it and to propose it once again (ibid.). During this process, each manager has the faculty to add comments and make adjustments (Jackson and Tomioka, 2004, pg. 163).

The last step which seals the approval is the application of the signature by the president. Actually, his consent is needed to get through a decision, but it deeply depends on the consent of all the other managers. The execution is going to be fast as all agreed to the decision (Sagi, 2015).

The "Ringi" system distinguishes itself from other approaches as it is an egalitarian decision-making process which promotes better employee cooperation. Furthermore, it greatly facilitates the final execution as consensus of staff of all ranks is gained. The disadvantages of the "Ringi" system in respect to others is that it can take extremely long to arrive at unanimity in accepting a proposal, and that it is inefficient in an environment that is constituted by a multitude of diverse cultures (ibid.). In the decision-making process Japanese executives take a long-term view. This transmits faith in the means a Japanese company has at its disposal for conducting negotiations. The Japanese see human capital as the most significant resource to meet future expectations and react to changes in circumstances. This implies that Japanese firms confide in their workforce (Jackson and Tomioka, 2004, pg. 33).

For the Japanese decision-making process to be effective a couple of circumstances must be given. The culture of the company has to be uniform and be characterized by social agreement among the workforce. This implies sharing common values and beliefs. A good arrangement of the transmission of information is fundamental (Sagi, 2015).

To understand the reason why the Japanese decision-making process has the structure described above the terms "reference group" and "face" have to be known. "Face" can be interpreted as "doing the right thing" which depends on an individual's perception of context. The type of behaviour that is seen as correct depends on the assumptions of the "reference group" of which an individual is part. Those who are part of this group disclose significant information to the other members. It is that information which establishes the context. Members of the group have a higher probability to follow the standards of behaviour than outsiders. This means it is easier for them to avoid the "loss of face". On the other side members of the group also normally have "more face to lose" (Jackson and Tomioka, 2004, pg. 48).

Generally, the senior members of a reference group offer the others some kind of guidance to clarify which reactions are expected. These members determine the definition of face and alter the people's decisions. When a member misbehaves by doing something which is against the designated rules of conduct, he takes a chance to embarrass himself or as a matter of fact to lose face (ibid., pg. 49).

Embarrassment is a sentimental reaction that unlike the loss of face has no long-term implications. The loss of face is an embarrassment that has severe implications for an individual's ambition and career path (ibid. pg. 55). A reference group is a social entity with its own command structure of control being characterized by individual values and norms. This can be seen as linked to those of the samurai and views of the bushido system of conduct, being "courage, benevolence, politeness, veracity, sincerity, ho(u)nor, loyalty and self-control". In Japan, all employees of a company can be seen as belonging to the same reference group sharing consistent concerns and beliefs. This strengthens collectivism for which the Japanese culture is well-known (ibid., pg. 49-51). The existence of face empowers the creation of trust among members of the reference group. Trust emerges as the conduct of members becomes foreseeable as it will match the prospects of the group, meaning their rules (ibid., 59).

The borders of reference groups are often blurring depending on shared intentions and commitment in disclosing information. For instance, two Japanese competitors might work together when approaching foreign markets, but they compete in domestic ones. This can be the case when they see themselves as part of the same national reference group as they operate in overseas markets (ibid., pg. 54). As already mentioned, the workforce of a Japanese company belongs to a single reference group. This concept also strengthens the idea of the "company as family" (ibid., pg.63).

The concept of face reinforces the widely represented view of the Japanese that it is not convenient to change job. Esteem is a highly relevant value in the Japanese culture. This is one reason why employees that have worked for years for the same firm, meaning inside a constant reference group, establishing over the years a good reputation, do not want to move to another company thus changing reference group and losing all the esteem that they built up (ibid., pg. 66).

What is often criticized about the Japanese decision-making process is the absence of clearly defined authority and accountability. Additionally, almost never a clear job description exists. Suggestions are usually made by a component of the middle-management (Brown, 1966). Then a reunion is held by different managers which would be affected by the proposal and an unofficial agreement is reached by which suggestions are passed around to managers of the same rank which approve and eventually adjust them.⁴ Only afterwards a formal document called ringi-sho is created and the proposal is approved by various higher-level managers. Through the placement of a seal the proposal is approved (Brown, 1966).

With this process in the end every manager affixing his seal authorizes the proposal, thus there exists not clearly an individual which is responsible for it. This is because the application of the seal by higher-level managers is often just a simple formality (ibid.). The Japanese decision-making process is a very long procedure and is thus not suitable to handle an impending crisis which requires immediate action.⁴

Technically unanimity is needed to push through a decision. This means that there is not a single individual having authority or responsibility over the decision. In fact, it is not very common that a ringi-sho is rejected. This means also that if a decision turns out to be bad there is not a single individual that risks losing faith, as it has been a decision taken by the group and not by one individual. The effect of "Ringi" is that the middle-level executives carry out almost all tasks pertaining to the administration of the company. This is also the reason why it is sometimes said that in Japan "authority has been delegated to the middle-management level" (Brown, 1966).

Usually when a decision turns out to be a good one, it is the middle management which put forward the proposal that receives recognition. If instead the decision turns out to be a bad one the layer of higher-level management is accountable for it, but it will never be a single individual that is blamed for a wrong decision.⁴ This system encourages middle level managers to take on a higher risk in making proposals and finding solutions to problems than the system applied by companies in Europe and America where the individual that takes a decision is usually individually responsible for it. Unlike in Western companies the proposal is then discussed until an approval is reached throughout the company so that each individual which will be affected by it is on board. This means in the end that the decision is not that of the top managers as it is common in Western companies but it is a decision that has been taken at company level and approved by all its members (which are part of the management). As a result, the implementation phase will be much shorter than in Western companies in which it is not unusual to encounter resistance by the rest of the management body. In fact, with the Japanese system change management is much easier to handle as all individuals have given their consensus and have no reason to resist the change required by a decision they approved (Drucker, 1971).

A fundamental difference between the Japanese decision-making approach and that of Western countries is the definition of the concept of decision making. The Western approach prioritizes finding the best solution to a problem (ibid.).

The Japanese approach instead aims its attention at the correct definition of the problem. The Japanese try firstly to understand if taking a decision is really necessary and afterwards what are the determinants of the decision. The solution to the problem automatically follows its correct definition (Drucker, 1971).

The drawback of the Japanese approach as mentioned earlier is the long time it takes to arrive at a decision. The advantage is that the decisions taken are commonly much more effective than those taken with the Western approach as the risk of obstruction with the Japanese approach is minimal. With the Japanese approach almost, every possible outcome is examined and thus expectations nearly correctly reflect the future reality. This means that with the Japanese approach the majority of decisions taken turn out to be good ones. This is not quite the case with the Western system. Due to the fact that the decision-making process in Japan is much slower than in Western countries, the Japanese focus on taking important decisions. Insignificant decisions are seldom made in Japanese companies and oftentimes ignored as it would not be profitable to spend that much time on them (Drucker, 1971). The Japanese focus on a long-term planning horizon when taking decisions (Keys, Denton, and Miller, 1994). Additionally, the Japanese approach strengthens group cohesiveness as to take a decision the whole management body of an organization has to work together. After the decision has been taken it is the role of all managers to communicate the decision to their subordinates and to make them accept it and to act upon it. The Japanese approach facilitates the preservation of consensus and harmony inside a group, which are fundamental to maintain cohesiveness. The decision taken in the Ringi process is ultimately accepted by each member and seldom rejected due to the feelings of loyalty and hierarchy which characterize the group and the pressure that is exercised by the group once a proposal has gathered momentum. It is very uncommon that a proposal has to be withdrawn because it does not reach consensus because before it is made informal consensus is obtained through nemawashi. If during nemawashi consensus is not obtained the proposal is usually modified so that consensus will be gained formally afterwards during Ringi (Cordeiro, 1999).

The Japanese decision-making process underlines the decentralization of authority which is typical in Japanese companies (Hamada, 2005, pg. 129). This is possible because the whole workforce of a company belongs to the same group having identical values and norms of which the orientation towards the goals of the company is part (Cool and Lengnick-Hall, 1985).

2.3. Japanese Management Strategies

2.3.1. Lean

Previously to adopting lean strategies the scientific management was embraced in Japan. From the 1910s onwards management literature from overseas was introduced by companies into Japan. The Japanese government recognized the significance of scientific management in the 1920s. It flourished in Japan in the 1930s when the government promoted it by instituting the "Provisional Industrial Rationalization Bureau". The government sent various people abroad to study foreign management practices in order to learn from them. The scientific management approach was then applied to improve the productivity of different factories. The scientific management was the starting point of the rationalization movement implemented by the Japanese government in the 1930s with the goal to exert control by the government over various industries. The government began to adopt standardization which was a must to implement scientific management. When business associations felt confident in the 1920s that scientific management was necessary to improve productivity, they began to cooperate with the government. Rationalization was defined in the Gineva conference as a method that had the aim to reduce the waste of resources and workforce. Scientific management was in fact part of the rationalization movement which was promoted by the government in cooperation with business associations. The Japanese rationalization movement replicated in various ways the rationalization that took place in Germany (Sasaki, 1988).

Scientific management has its roots in the U.S. and one of its well-known developers was Frederick Jackson Taylor. He studied the optimization and standardization of workflows to increase productivity.⁴ Taylorism, named after him, is characterized by the detachment of process and planning activities, standardization, process time reduction and implementation of constant improvement (Parkes, 2015). Scientific management underlines that production processes heavily depend on the attitude of management. This explains the implementation of on the job training in Japan and the high involvement of various layers of management in the production process.⁴

The elimination of waste is also one of the main goals of lean.³ In fact, lean was developed in Japan but originates from scientific management which comes from the U.S. The lean system was partially inspired by the scientific management approach as it adapted some of the American production techniques to the necessities of Japanese companies (Parkes, 2015).

Lean management has its origins at the so-called Toyota Production System (TPS). The term lean was used afterwards in literature to generalise the various methods used in the TPS which can be applied to different companies and industries (ibid.). It was used for the first time in the book "the Machine that Changed the World" written by Womack, Jones and Roos in 1990 and described lean in the following way: "Lean production is a superior way for humans to make things. It provides better products in wider variety at lower cost."

To develop the TPS several concepts were borrowed from America. Kiichiro Toyoda, the founder of the Toyota Motor Company, took inspiration of the concept of flow used by the Ford system. Taichii Ohno, a manager hired by Toyota after WWII and father of the TPS copied the pull system from the organization system of U.S. supermarkets. Taichii Ohno then combined the pull logic with the automatic loom that was invented by Sakichi Toyoda (father of Kiichiro) in 1905. The result was the forerunner of jidoka which translated means autonomation. Additionally, also the ideas of standardization and elimination of waste which heavily influence the TPS were borrowed from the American Ford system (Parkes, 2015).

Japanese companies could not simply copy the American scientific management approach as they did not have the same prerequisites. They had far less capital at disposal than their American counterparts, thus it was not possible for them to apply mass production which is highly capital intensive due to the costly equipment needed (Dobi and Bugàr, 2008). Additionally, Japan is an overpopulated country, thus there was no space to keep huge inventories lying around. Furthermore, in Japan there were no immigrants that could be employed at ridiculously low wages as it was the case in America (Micklethwait and Wooldridge, 2003). Japanese companies had to produce lower volumes employing a smaller amount of equipment. This meant they had to develop their own production system that takes into account the scarcity of capital. Toyota was the first company which was able to solve the issue by minimizing changeover time. As a result, the production in small batches became profitable. This automatically reduced inventories. On the other hand, due to the low levels of inventory when a defective batch was produced Toyota had to produce another batch before moving on to the next stage of production. This was not the case for American companies which could simply take a batch from their inventory to continue the production process. For Toyota it often meant that the production line had to stop until the defective batch was reproduced. This is why the improvement of quality and the reduction of the defect rate were crucial to remain efficient. It led to the initiation of Total Quality Management (TQM) and programs which had the aim to arrive at zero defects (Dobi and Bugàr, 2008).

Scientific management, also called Taylorism, was applied by Henry Ford to develop the Ford system. Typical aspects of Taylorism as continuous improvement and standardization constitute the basis of lean management. Even if the TPS borrowed some important elements from the Ford system there exist crucial differences between the two. The Ford system concentrates on the mass production of an identical product. The TPS instead focusses on a one-piece flow enabling the production of different items in small sizes. The Ford system applies a push logic by which previous stages determine what will happen in the following stages. The TPS applies a pull logic that is connected to the concept of Just-In-Time (JIT) by which production takes only place when there is demand. The Ford system is characterized by large batches and long changeover times, the TPS instead by small batches and short changeovers. In the Ford system there is huge inventory, instead the TPS tries to avoid inventory as much as possible by designing warehouses that function as supermarkets, meaning when one item is used in the production process it is reordered to avoid going out of stock. This is different than in the Ford system were a huge amount of inventory is present and it is reordered only after a determined number of pieces has been used. Additionally, the Ford system overproduces items and is characterized by high defect rates. The TPS refrains from overproducing and the defect rates are at a minimum (Parkes, 2015). The TPS applies some methods that can be seen as opposite to those applied by Taylorism. It focusses on the exact definition of jobs and tasks that are part of a certain position. The TPS as also lean management instead advocates adaptability of the workforce embracing teamwork. Lean management refuses to assign each employee a specific role with predetermined tasks. What is crucial for a lean enterprise is a flexible workforce. This usually leads to higher-skilled employees which are more autonomous than those working for a company that applies Taylorism (Morris and Wilkinson, 1995). Instead of focussing on economies of scale as the American system does, the TPS focusses on "economies of time". This is made possible thanks to the implementation of three improvements:

- 1. Each employee is given the responsibility to control quality by looking for mistakes and fixing them instantly. This is feasible as employees have the possibility to halt the production line when an error occurs.
- 2. The JIT approach ensures that items are available just at the time they are needed for production.
- 3. "Demand pull" makes sure that parts are made to order, meaning only when the following step is needing them. This is enabled for e.g. with Kanban cards.

The TPS avoids two costs that are characteristic for mass production:

- 1. The incapacity to react to shifting demand: It is difficult for a mass producer to adapt a standardized design as this would implicate high costs to modify the production line and to teach employees, which are not used to changes, what they should do differently. Additionally, the high levels of inventory stored could be out-of-date for the production of the new product and thus be thrown away.
- 2. A large number of defective products: due to the production of large batches it is extremely burdensome to detect the error (Micklethwait and Wooldridge, 2003).

Also, the relationship with suppliers is different for lean enterprises than for mass producers. The supplier could belong to the same Keiretsu or instead be independent. Instead of playing off their different suppliers against each other the lean enterprise has a solid relationship with each of his suppliers and treats them as associates. In return for this long run relation the suppliers deliver the lean enterprise with all it needs just-in-time. If the companies are both part of the same Keiretsu, it is not unusual that they exchange resources as for e.g. human capital. It is often the case that middle-level managers are sent to suppliers to take a top management position to strengthen the relationship between the two Keiretsu members. This sharing of resources and information further reduces the waste of time during the production process (Micklethwait and Wooldridge, 2003).

The TPS relies on theories of the Plan-Do-Check-Act cycle (PDCA) developed by E. Deming. This approach guarantees continuous improvement by implementing constantly small improvements and thereby eliminating waste, maintaining the flow of production, and increasing productivity. Firstly, an improvement has to be planned by analysing the as is situation and proposing some improvements. Then one of the proposed improvements should be applied. Afterwards it has to be checked that the improvement works for a certain period of time. Lastly, after having determined that the improvement is sustainable, it can be standardized. Then the PDCA cycle is reiterated and so on (ibid).

In 1945 the work of developing a new production system at Toyota began. JIT, autonomation and the reduction of setup-time were employed. Autonomation means "automation with a human touch". Its goal is it to build quality inside the processes and ultimately to minimize defects. In 1950 the andon system is adopted and in the following years it is refined. Andon is an instrument that visually shows when an irregularity at the assembly line occurs. Andon enables the worker to stop the line and solve the problem that created the irregularity (ibid.).

In 1953 the supermarket system is adopted to handle inventory levels more efficiently. In 1962 the Kanban system is applied, and setups are further reduced. Kanban supports the functioning of the pull logic whereby it determines the movement, production, and replenishment of products when necessary. For example, a Kanban could be an empty space in the warehouse signalling that a product has been withdrawn by a customer and thus it has to be reproduced (ibid.).

The crucial goals of lean are the increase of value for the customer by for example providing him with high quality and low prices and the reduction of waste by implementing continuous improvement, also called Kaizen (ibid.). Every activity that does not add value to the customer is viewed as waste. There exist seven types of muda, which means waste, that the lean management tries to minimize:

- 1. Overproduction: this means producing a higher number of items than the customer demands. It follows that the item has to be stored as inventory which increases costs.
- 2. Time spent waiting: operators, machines or items are waiting. This does not increase value to customers but is costly for the company (e.g. workers have to be paid).
- 3. Transportation: products being moved within the operation and supply chain do not add any value. Instead transportation consumes resources and increases the risk of injuries, thus adding costs.
- 4. Over-processing: when the design of a process is unnecessarily complicated and time consuming.
- 5. Inventory: of raw material, work in progress or final products. It does not increase value but costs as it produces holding costs.
- 6. Motion: unnecessary movement of people and information does not create any value.
- 7. Defects: these are products presenting some type of errors that have to be thrown away or be modified. In both cases defects are time consuming and costly (Hassan, 2013).

The concept of the reduction of waste comes actually from the "industrial engineering" of the Western countries. It has been copied and extended by the Japanese when they developed lean management. Elimination of waste thus means for a company which applies the lean management to hold no inventory, also meaning no safety stock. Everything that cannot be used immediately is termed to be waste (Wood, 1989).

Japanese companies usually do not build large plants but small ones because conducting large plants is more complicated and rises bureaucracy which increases the time spent to manage such plants (Wood, 1989). This does not add any value to customers and is thus considered to be waste. JIT is crucial to minimize waste as it demands to produce the right quantity needed at the right time. It means that overproduction is equated with underproduction as it produces waste. To guarantee the effectiveness of JIT the production has to flow evenly. To minimize waste various control techniques such as jidoka and poka-yoke are used.³ JIT has not only the aim to reduce inventory, but due to the reduction of buffer inventory encourages a process of steady learning by emboldening employees to learn on-the-job. The concept of JIT has not been borrowed from America but has genuinely been developed by the Japanese (ibid.).

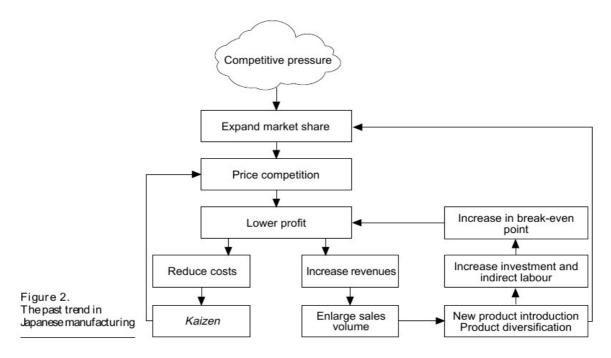
The two pillars on which the lean system is based are JIT and jidoka. Jidoka stands for autonomation that improves quality through the reduction of defects by stopping the production line right away when a defect occurs (Parkes, 2015). Part of jidoka is a tool called poka yoke. Its aim is to avoid mistakes made by operators by providing fool-proof applications (Burlikowska and Szewieczek, 2019). JIT means that one stage of a process should produce just what is needed by the following stage (Parkes, 2015).

The application of lean techniques widespread in about 10 years in the Japanese automotive industry. When other industries realized that companies adopting lean management were able to produce smaller batches in less time with a better quality than those applying mass production and increasing their customer base due to lower prices, also companies of other industries began to adopt lean management. Lean enterprises were much more competitive than mass producers because they were able to reduce prices thanks to the lower costs, they sustained due to JIT programs (Dobi and Bugàr, 2008). The advantages of lean were the requirement of less material and machinery, time reduction of the production process thanks to the minimization of set-up time, higher product quality presenting less defects, and a larger variety of products. The consequence of all this advantages is an increase in customer satisfaction as the value for the customer is maximized. As a result, lean enterprises were able to expand their market share with respect to companies which did not apply lean techniques. It did not take long and almost all manufacturing companies in Japan adopted the lean management approach. Even if lean seems to be superior to mass production, in the last years of the 1980s various researchers questioned its sustainability (Katayama and Bennett, 1996).

As the majority of companies adopted the lean approach in the 1980s the main goal of the competitors of an industry was to increase market share, as shown in the picture below.

Market share was gained primarily by competing for the lowest price. This consecutively led to a reduction in profits (Katayama and Bennett, 1996).

To remain profitable companies necessitated to enlarge revenues and diminish costs. The reduction of costs was made possible by the application of continuous improvement, known as Kaizen. This additionally encouraged the competition for lower prices. Higher revenues instead required higher sales volumes which were possible to reach thanks to the introduction of new products and the diversification of existing ones. This necessitated an increment of investment, thus raising the break-even-point and further diminishing profits. This constant cycle has been sustained by Japanese companies for a while but in recent years it has shown to be no more feasible. The increment of sales volumes was no more bearable with the rise of interest expenses. Also, export volumes have been decreasing due to the increment in value of the yen (ibid.).



Source: Katayama and Bennett, 1996

The final aim of lean is to provide customers with the exact product they want in terms of quality, at the point in time they want it, providing the desired volume of products at the cheapest price and the desired location. Lean can be seen as:

1. A philosophy to organise the production process. This is done by levelling the flow of processes by eliminating waste, doing things as good as possible, implementing continuous improvement and matching customer requirements. The principal concerns of lean as a philosophy are the reduction of muda, steady improvement and involvement of employees in the production process.

- 2. An approach to control and plan the production process. This definition focusses on the flow of elements in the process and on the management of this flow. A coordinated flow which eliminates waste is reached thanks to the use of the so-called pull control.
- 3. A collection of instruments that increase the efficiency of processes (Slack, Brandon-Jones, and Johnston, 2016, pg. 498-500)

Lean thinking is characterized by 5 principles:

- Define value: specify the value a customer associates with a specific type of product.
 It is nonsense to provide a product that customers do not want. Therefore, it is crucial to focus on customer needs when designing products.
- 2. Map value: it is fundamental to determine the value stream for each single item. Analysing it enables a company to understand where in the process value is created, and which steps do not add any value. Everything that does not increase value is seen as muda but not every step that creates waste can be avoided. Those steps that do not add value but are not avoidable create type one muda. Those that do not add value but could be bypassed generate type two muda. These should be skipped.
- 3. Flow: it is crucial to generate a flow in the steps that characterize the value stream. Companies applying lean techniques employ a one-piece-flow by which every time one product has been processed it is moved to the next stage. This eliminates the buffer inventory typical in mass production, but it heavily reduces production time.
- 4. Pull: means that the following stage in the production process dictates what the stage before will produce. The following stage thus pulls the production from the previous one. This results in the production of the exact quantity of the right product and at the desired time for the end customer. The result is a more predictable and stable customer demand because customers know that they receive the wanted item at the point in time they desire it.
- 5. Perfection: the implementation of flow and pull reveal all the waste that before was invisible. The lean approach is a transparent one that enables a company to discover muda it did not even know that existed. This facilitates the pursuit of various improvements with the final aim to reach perfection. Clearly it is not possible to reach this goal, but in trying to do so a company continuously improves its operations (Womack and Jones, 1996, pg. 15-26).

2.3.2. Kaizen

Kaizen is defined as the constant improvement practices that are carried out by the whole workforce of a firm. This includes the participation of all layers of management and also simple workers that execute uncomplicated tasks. Kaizen is deeply connected to lean as with the continuous improvement it implies it supports the elimination of waste which is one of the primary goals of lean. By some researchers Kaizen is seen as the most valuable strategy of the Japanese management approach as it is crucial for the superior competitiveness of the Japanese companies (Yokozawa et al. 2009). Even if it is impossible to reach perfection, it is always possible to enhance performance. This is true also in situations that could seem to perform at the highest level possible, because if it is correct that perfection is unreachable there will always be a way to advance and to get closer to perfection. Kaizen approaches its aims of maximum quality and efficiency by eliminating all irregularities that could cause problems (Wood, 1989).

Kolm (1985) suggests that the ideas underlying Kaizen and its belief that it is impossible to reach perfection derive from Buddhism. On the other hand, he concluded that the concept of Kaizen is seen by the Japanese as limited in other cultures than the Japanese one. This also includes cultures which rely on Buddhism, meaning that the progression of Kaizen cannot solely be explained by the persistence of Buddhistic values but has also other causes as for example the lack of resources characterizing Japan.

Kaizen is defined by "change for the better" and "positive improvement". It is not accomplished by carrying out big improvements that disrupt the as-is situation completely, but by realizing small improvements steadily. This results Kaizen to be incremental. The employment of Kaizen manifests typical characteristics of the Japanese approach to management:

- 1. The elimination of waste by reducing the utilization of resources and the consumption of time.
- 2. Continuously improving existing practices and standards by creating endlessly enhanced routines
- 3. Shared striving to attain continuous and stable improvements (Jackson and Tomioka, 2004, pg. 139-141).

Kaizen is not equal to innovation. It focusses on the enhancement of the process itself and not on the final result that is wished for. Innovation instead does not concentrate on the process and on a final outcome that already exists, but it tries to create something new. The elements which explain why Japanese companies prefer Kaizen over innovation regarding their improvements of performance are their willingness to avoid uncertainty and disputes which derive from their cultural values, their prevention of loss of face, and cautiousness regarding their work and private life (ibid.).

Kaizen has various advantages as minimization of costs, the gain of efficiency, a decrease in defect rates and the enhancement of the ambition and mood of the whole workforce (Yokozawa et al. 2009). Additionally, the implementation of Kaizen induces improvements to not stop once they are made but to continue and advance. The drawback of Kaizen is that no innovation is made, meaning that Kaizen focusses on improving that what already exists but does not invent something new. In recent years Kaizen has been challenged due to the economic downturn that Japan has suffered. The problem is that the Japanese were only able to improve already existing products. Doing so in the first decades with the initial enhanced product versions they were successful. But after a while the market got tired of seeing ever again the same product just in a new form. Kaizen does not enable a company to invent a brand-new product and thus it was almost impossible that a Japanese company became the pioneer of a new market (Micklethwait and Wooldridge, 2003).

Kaizen is a strategy that cannot be viewed just from the perspective of product improvement, as already mentioned it concentrates on processes not on outcomes. This means that the Japanese have the tendency to carry forward processes and projects almost indefinitely by concentrating on small and steady enhancement. Western companies which do not follow Kaizen instead usually focus on outcomes. Once they have attained a desired result, they usually stop a process or project and begin a new one (Keys, Denton, and Miller, 1994).

A valuable method to implement Kaizen is the application of the 5S. Kaizen is an approach that is bottom up and highly involves workers in the practice of continuous improvement (Yokozawa et al. 2009). The concept of the 5S is built upon "the Japanese acronyms of seiri (organisation), seiton (neatness), seisō (cleaning), seiketsu (standardisation) and shitsuke (discipline)". The first step in implementing the 5s is organisation meaning removing everything that is unnecessary. Neatness implies to categorize all the residual elements by creating a location for everything (Gapp, Fisher and Kobayashi, 2008).

Cleaning indicates to tidy up the workplace. This discloses possible problem areas. Standardization suggests validating the first three steps by documenting all activities and determining the current "best" way to executing them. The last step is to control that the established standards are followed constantly (ibid.).

5S can be seen as a strategy that is performed throughout the whole company enhancing performance and the decision-making process. Unlike other approaches that the Japanese have copied and customized, the 5S is an all Japanese approach (ibid.).

The 5S generates various advantages:

- 1. Orderliness: improving productivity in consequence of the simplification of tasks. It decreases the workload and the possibility of employees to make mistakes. This advantage comes from the implementation of organisation and neatness.
- 2. Cleanliness: increasing efficacy by creating a safer, healthier, more satisfactory, and cleaner workplace. This derives from cleaning and standardization.
- 3. Discipline: a higher quality of the work environment and its standards is reached through instruction and guidance of the employees. This ultimately improves the mood of the workers and has its origins in discipline.

The application of the 5S ultimately diminishes incidents and injuries at the workplace. The primary aim of the 5S is however the maximization of quality. It helps to establish best practices and to improve them. To guarantee the functioning of the 5S the whole workforce has to be involved into its practice (ibid.).

The successful implementation of Kaizen depends also partially on the dedication of top managers as they decide how many resources will be deployed to put into effect Kaizen. Additionally, also the corporate structure influences Kaizen. Most Japanese companies are in fact centralized and formalize the majority of activities they carry out. They usually standardize all activities to minimize irregularities in processes. Only when processes are stable it is possible to continuously improve them. Standards are the forerunners of improvements. If a process would change often the improvements made initially may would become ineffective and they would occur less often because you can only improve an activity that you know well, if it continuously changes you will not be able to enhance it. When an improvement is proposed and applied successfully it should be standardized so that it becomes possible to furtherly enhance the activity (Yokozawa et al. 2009).

On the other hand, Japanese companies heavily rely on teambuilding and the cooperation and support of the whole workforce. This and the unclear definition of jobs encourages the employees to socialize with each other. That in turn strengthens the ability of sharing tacit knowledge between the workforce which ultimately improves their performance (ibid.).

Kaizen does not only have benefits. An important drawback is that it subtracts autonomy from the workforce as all tasks are standardized which reduces the freedom of workers to innovate. Additionally, the independence of employees is restricted due to continuous performance of supervision and observation practices which guarantee the consistent and correct application of the established work routines and standards (ibid.).

2.3.3. Total Quality Management

Total quality management, shortened TQM, is an approach that involves the whole workforce of a company in the projection and achievement of Kaizen (Yokozawa et al. 2009). A tool that ensures the embeddedness of quality into processes are quality circles (QC).

The concentration on maximal quality of the Japanese companies is linked to their attempt to reach perfection. They believe that the focal point should be the first phases of a process as they create the foundation for adequate quality. To maintain this quality and enhance it the whole workforce involved in the process has to focus on continuous improvement during the remaining steps of the process. TQM and Kaizen are strongly interlinked but are not synonyms for each other. Kaizen focusses on continuous improvement everywhere, not only regarding quality. It can have various aims of enhancement as the minimization of costs, the increase of quality or the boost of speed of the production process and the following distribution process of the final product to the end customer. TQM conversely concentrates solely on continuous improvement to enhance quality (Parkes, 2015).

It was the American W. Edwards Deming that inspired Japanese companies to concentrate on the continuous improvement of quality. Japan today is known worldwide for its high-quality standards that enabled companies to minimize defects in a way that these are almost imperceptible. The immense progress in quality improvement that Japanese companies were able to make derived from the implementation of continuous schooling of the whole workforce, the direct participation of workers in company affairs, and the assignment of responsibility for enhancing quality to ever member of a company. In Japan, every employee has the right and the duty to guarantee the quality of its working activities. When a problem occurs that could compromise a process by producing defective products a worker has the obligation to stop the activity he is carrying out and control everything until he finds the error. Only then he has the authorization to continue the process. Additionally, in Japan it is assumed that the control of processes should always be executed automatically by machines when possible because it is supposed that these are faster and more accurate than human beings. The technique which is applied for this function is called bakayoke. These are instruments that are affixed to machines and have the aim of controlling the production process for irregularities. When an irregularity is detected this devices signal the problem. For processes that cannot be checked by machines poka-yoke techniques are used. This are simple and usually cheap devices that decrease the possibility of operators to make errors.³

This devices can have two functions: they either notify the worker that an error is going to be made or they avoid the possibility of making errors. All this various techniques that have the goal to continuously increase quality are part of the lean management approach.³ The difference of the TQM approach and the approach used by American companies to assure suitable quality, is that TQM starts to investigate quality at the starting point of every process. The aim is to avoid the occurrence of errors. In America instead companies focus on the discovery of errors only after they have already been made (Burlikowska and Szewieczek, 2019).

Poka-yoke is one of the methods used to impede the manufacturing of flawed products. It is translated with "error proofing" and has the aim to produce zero defective products. Poka-yoke prevents mistakes that could be made by workers, not by machines. There exist two approaches that can be used to implement poka-yoke:

- 1. Control approach: Processes are controlled for irregularities. When an irregularity is discovered the process is shut down and adjustments are made instantly. This prevents the generation of defects.
- 2. Warning approach: Every product is checked for irregularities, and it is decided if to keep the product or to throw it away. This are uncomplicated and cheap checks which signal the worker when a product represents a problem. The process is not stopped but the workers are informed of the existence of an irregularity which they have to correct. This approach is applied usually early on in the process where small irregularities do not create high costs when it is not possible or inconvenient to apply the control approach.

Poka-yoke can consist of three distinct activities depending on which approach is applied: stoppage of the process, check, and signalisation of irregularities. Poka-yoke is often implemented by applying the PDCA cycle:

- 1. Plan: Determine were defects occur and what is their source. Then try to find a way that could fix the error by applying poka-yoke.
- 2. Do: Choose the idea that seems to work best and apply it.
- 3. Check: Collect data about the improvements that the applied solution accomplished. Analyse this data and determine if it corresponds to the expected results.
- 4. Act: Reconsider the problem and try a way to furtherly improve the found solution by applying poka-yoke (ibid.).

The method applied to quality control by the Japanese is one that has been copied by the Americans and successfully modified to be effectively applied in Japan. In America quality control was laid down by the top managers and ultimately implemented by all employees by complying with standards that the managers had dictated. This approach to quality control was then converted by the Japanese into Total Quality Management (Dobi and Bugàr, 2008).

The high involvement of the workforce in the daily business of the Japanese companies was one of the driving forces which made TQM so successful. An aspect that heavily influenced the development of TQM is the focus on customer needs in Japan. Due to the deficient availability of resources Japanese companies had to find a way to always produce the right product that customers demanded. They could not risk to waste resources by producing undesired items that would not be sold as this would have meant to endanger the stability of a company much more than it was the case in Western countries. When no demand exists for an item it should not be developed as this would waste resources and may frustrate existing and possible future customers. This holds for all companies worldwide. However, the Japanese ones had to pay even more attention to this exposure as they were more vulnerable as their circumstances were quite worse due to lower access to capital and lower availability of space. To develop items that customers desire it is crucial to be aware of their desires and selection criteria when choosing one product over another. Most customers value increases in quality, reductions in prices or improvements of product features. As quality is one of the elements that can increase customer satisfaction, it has sense to focus on it to increase demand and customer retention. This is what Japanese companies in fact did by applying TQM and it was very rewarding as demand rose greatly (Dobi and Bugàr, 2008).

The concept behind TQM is that it takes much more time to correct mistakes after they have been made than focusing immediately, at the beginning of a process, on the avoidance of these errors. The approach used in America and Europe before TQM was developed in Japan imposed that quality control practices should be carried out only after the production of an item was concluded. TQM turned this idea upside down by suggesting that at each step of a process quality should continuously be checked as in this way it is easier to detect a problem and to correct it. If an error is detected only at the end of the process, after all activities have been carried out, it is almost impossible to understand immediately in which phase of the process the error has occurred. This implies that each phase has to stop working and be checked for a defect. That is much more time consuming than instantly checking just the step where the error actually occurred (Micklethwait and Wooldridge, 2003).

Controlling only the phase where the problem arose is possible with the application of TQM as each phase is continuously controlled and errors are detected immediately as they occur, and not just at the end of the process. Additionally, with TQM fewer defective products are produced as defects are detected right away and before sending the product to the next step the defect is rectified (ibid.). With the implementation of TQM employees were made responsible for notifying possible quality issues and to stop the production process when such problems occurred, to fix them instantly. Even if the origins of TQM can be traced back to America, it has been adjusted and more successfully applied by Japanese companies than by American ones (Keys, Denton, and Miller, 1994).

The understanding of the meaning of quality constantly changes. Years ago, to increase quality meant for a Japanese company to improve product features. Now instead, quality is also determined by the environment of a company and the related corporate social responsibility activities a company carries out. TQM boosted competitiveness of Japanese companies in such a way that their American counterparts had no choice than to copy the Japanese approach to quality by highly focusing on process improvement, increasing customer focus with regards to their desired quality and assigning each layer of management authority over the enhancement of quality. In this way also American companies recognized that it is not enough to promote individual learning but rather to focus on the enhancement of the entire process than on single people responsible for their performance. TQM further strengthened the application of teamwork in Japanese companies and caused the transfer of this practice to Western companies. Companies shifted from concentrating on functions to focusing on entire processes and their improvement (Hamada, 2005, pg. 137-138).

For the effective implementation of TQM, it is crucial to acknowledge the contribution of each single step in a process to the development of quality. It is important that already the first phases of a process focus on quality as their outputs will represent the inputs of the following phases. If the outputs of the initial steps are of low quality this compromises the quality of the final output as the following steps have to convert low quality inputs into outputs. Even if the following steps implement the continuous improvement of quality, the final output will never have the maximum quality as with low quality inputs it is impossible to produce high quality outputs. When a low-quality output is transferred to the next phase, the probability increases that this phase or the following one will produce a defective output (Burlikowska and Szewieczek, 2019).

5S is a methodology used to implement activities targeting the improvement of processes. This is why it can be considered a method to enforce TQM. The effect that has the application of 5S is the increment of effectiveness and efficiency of processes. Performance of a company is increased by improving safety and health of workstations. It is an approach that supports the discovery and solution of problems (Gapp, Fisher and Kobayashi, 2008). The empowerment of employees that is demanded by TQM leads to a workforce that has a variety of skills, the rotation of jobs, collaboration among employees, and the involvement of workers in company affairs (Morris and Wilkinson, 1995).

2.4. Japanese Management Techniques

2.4.1. JIT

Just-in-time, shortened JIT, is a control technique applied to inventory and production. The JIT system checks continuously the quantities produced in each process (Yokozawa et al. 2009). It has the aim to reduce stock levels. As its name reveals material should be available "just in time" for guaranteeing a steady flow of the production process. This means that parts should be available only at the point in time when they are actually needed without laying around for days or even weeks in the warehouse as it was typical for American companies applying mass production. With the JIT system materials have to be transferred to the right station they are required, at the point in time they are needed and at the correct quantity. Additionally, the production process is arranged in a way that it is able to deliver a variety of product types depending on the fluctuations in customer demand. An important condition to guarantee the effective performance of the JIT system is the minimization of defect rates in every phase of the production process. This means that defects have to approach zero. Due to job rotation, used by Japanese companies, employees are highly skilled in different tasks and thanks to the implementation of teamwork and high involvement of the workforce it is easier to detect problems and resolve them. This methods support the reduction of defect rates and improve efficiency (Nakamura, 1993). Thanks to the management of stock by applying JIT Japanese companies became well-known in the 1980s for their efficiency (Morck, 2005, pg. 443). The goals of both, JIT, and TQM, are "zero defects, zero inventory and zero waste". Both refute the idea advocated in Western countries that high quality could only be reached by accepting an increase in costs (Morris and Wilkinson, 1995).

The employment of JIT techniques heavily contributes to one of the main goals of the lean management strategy, namely the elimination of waste. Some scholars even equate JIT with waste elimination. The application of JIT in fact causes a company to produce just what is actually demanded by customers, not more and not less. Overproduction is indeed one of the forms of waste as it generates needless inventory. A requisite for the effective functioning of JIT is the steady flow of production. Any irregularity of the production process could lead to interruptions and setbacks. To ensure a constant flow of the production process Japanese companies employ a homogeneous plant load. They organize the production in such a way that they generate an identical mix of items every day. This also reduces the risk of delays in product delivery as with this approach they produce a number of every product type they sell each day.³

With mass production instead usually large batches of the same product are produced, meaning that when due to demand fluctuations the production of another product type would be necessary, the shift in production is not immediately possible. With JIT production small batches are generated. This has the disadvantage that the number of set-ups rises, increasing set up costs. The consequence is that set up time has to be minimized. Japanese companies were in fact able to decrease it extremely. The advantage of production in small batches is the reduction of inventory as only what is really needed is produced. This decreases holding costs which are the costs of carrying inventory.³ The application of JIT techniques does not require solely that the production process is accomplished "just in time" but also the purchasing process has to focus on this principle. This requires the suppliers to provide raw materials immediately when they are needed. This furtherly reduces the inventory stored in warehouses. The application of JIT also to purchasing processes was possible in Japan thanks to the strong relationships between a company and its suppliers. As already stated, some are part of the same group or however have a more robust relationship with their suppliers with a focus on long-term collaboration than it is usual for Western companies. This also facilitates the discovery of defects as with a strong cooperation with suppliers also the sharing of information is easier (Keys, Denton, and Miller, 1994).

A method to apply the JIT system is Kanban. This has been designed by Taiichi Ono at Toyota. Kanban has usually the form of a sheet of paper on which the pieces used in a phase of the production process are reported. This enables all employees working at this step to be informed about the parts necessary to conclude the production phase. It informs about the necessity to restore the inventory with the parts needed for a determined process. The adoption of Kanban has various benefits as the minimization of wasted resources, such as materials and time and the improvement of accuracy and efficiency of spreading information. This leads to a more knowledgeable workforce and increases their skills. It furtherly enables employees to be more involved in the production process by giving them the authority to constantly perform quality checks by looking for missing or defective parts (Jackson and Tomioka, 2004, pg. 138-139).

2.4.2. On the job training

The Japanese heavily rely on standardization as this facilitates the implementation of continuous improvement. Indeed, even the practice of employee training in Japan has been standardized and is termed on the job training, shortened OJT. It is implemented by teaching employees new activities letting them observe their colleagues and afterwards trying to replicate what they have seen. It is a form of learning by doing which does not provide methodical assessment and appraisal (Jackson and Tomioka, 2004, pg. 136). This form of training permits employees in Japan to transform tacit skills into straightforward know-how. It causes the communication of Japanese companies to be difficult to understand for outsiders and impossible to transmit to competitors. The adoption of job rotation further strengthens the practice of OJT. This practice induces employees to be more flexible and interchangeable. When lack of personnel occurs at a specific phase of the production process the workers of another phase can be employed to guarantee the flow of the whole process thereby preventing stoppages. Job rotation stimulates the sharing of knowledge between the workforce and the development of long-term relationships among employees. This strengthens group cohesion and the desire to remain part of the group, thus increasing the effort made by employees to reach company goals as the members of the company are seen as "family" and are therefore willing to contribute to the wellbeing of the whole group. Additionally, job rotation emphasizes that an individual will never finish learning as with a new job also different knowledge is required. This aspect promotes Kaizen (ibid., pg. 142-144). Job rotation is not proposed to every employee, but only to permanent workers (ibid., 91).

The employment of on the job training in combination with lifetime employment and job rotation makes it profitable for Japanese companies to heavily invest in their human capital. These practices increase the skills of the workforce which contributes ultimately to a higher efficiency and performance of the whole company (Nakamura, 1993). OJT is the best technique to achieve production efficiency and quality of outputs simultaneously (Schlunze, 2002). The lower the number of job categories existing in a company the higher is the probability of the development of employees possessing a wide range of different skills. Additionally, these practices improve the multitasking ability of human resources. Employees and the various layers of management have to collaborate in order to guarantee the necessary building and improvement of skills by employing OJT, job rotation and official courses provided by the employer. Individuals that do not seem to be able to develop skills in this way are usually not promoted or when discovered already during the selection process they will not be employed (Nakamura, 1993).

OJT reinforces collaboration among workers as to learn they have to work together. Information is not seen as power but as an asset that should be shared in order to improve overall company performance. Salaries, at least the part of the bonusses, do not completely depend on seniority but also on the performance of a worker which is evaluated continuously by managers. This managers are responsible for the training of their subordinates and thus also indirectly for their performance (Wood, 1998). Also, the managers have undergone OJT and thus know how to convey their knowledge to subordinates. Thanks to the seniority system managers do not have to fear that once they instructed their subordinates, they will be surpassed by them and lose their job to them as it is not unusual in Western companies. This job security encourages knowledge sharing. Subordinates are thus not seen as rivals and cooperation is enhanced. This contributes to the formation of uniform values among the workforce. The members of a company are like a clan, meaning a group of individuals which share the same values, goals, and assumptions on how to cooperate to reach them (Cool and Lengnick-Hall, 1985). This clan logic of the Japanese companies is strengthened by the view that blue- and white-collar workers are equally important. Managers are seen as leaders of a team. This system underlines the importance of respectfulness for human beings (Morris and Wilkinson, 1995).

2.4.3. Quality circles

Quality circles developed naturally from the concept of group formation that was typical in every setting in the Japanese culture. Additionally, they were formed to implement Kaizen (Keys, Denton, and Miller, 1994). The concept of quality circles is the creation of various groups of people of about ten members each, that convene about once a week. This meetings are often organized in the spare time of the employees. The arguments discussed during such group meetings are usually generic. During discussions of these general arguments often suggestions regarding the improvement of specific activities come up (Keys, Denton, and Miller, 1994). The aim of such a group is the improvement of quality of that processes that they personally concern. Each member of a company, from the top management layer to the simple operator, is part of such a group. Quality circles enable employees to take part in company decisions by providing their recommendations. This is of crucial importance for businesses in Japan as these suggestions are the basis for the implementation of Kaizen. The aim of quality circles is not just the enhancement of quality but also the solution of issues regarding "productivity, safety, work relations, cost, plant, and housekeeping" (Yokozawa et al. 2009).

Quality circles constitute a means to involve employees in company affairs. Thanks to quality circles they get the possibility to provide recommendations that remove errors and improve production processes. As employees have also the responsibility to check the quality of the processes in which they are involved, when being part of a quality circle they also get the chance to refine them (Wood, 1998). Employees in Japanese companies do not just have to carry out what is dictated by their superiors, as it is typical in Western companies, but through quality circles they are empowered to take initiatives. Quality circles heavily affected the successful achievement of significant quality standards that many Japanese companies reached, and which increased their competitiveness (Cool and Lengnick-Hall, 1985). When Japanese companies became aware of the benefits of implementing quality circles, they began to standardize this technique, as they also did with the JIT technique. When also American companies recognized the utility of quality circles to improve product quality without spending much, many of them copied this technique (Morris and Wilkinson, 1995).

2.5. Role of women

More than 50% of the Japanese population are women. Statistically they get older than men and thanks to them Japan is one of the countries which has the oldest population of the world. The majority of Japanese workers is older than 60 years. In fact, Japan is known for having the most aged operative workforce worldwide. Almost 50% of this employees are women. Following the 1950s more and more women began to pursue a working activity. This caused the number of female employees to triple and led to the establishment of a law which had the aim to guarantee equal opportunities in 1986. Notwithstanding, the standing of Japanese women was still heavily determined by their ability to be a good wife and mother. After the rebuilding subsequent to WWII Japanese women had to perform a job that was threefold. They had to become the secondary wage earner of the household, educate their offspring, and support their spouse in his career advancement. As complementary wage earner women had usually to carry out undemanding jobs which did not require the possession of determined skills and thus entailing a low salary, or accepting to be part of the category of temporary workers which were only employed during periods of strong increase in demand. Women were sometimes seen as Japan's "hidden assets" as they were readily available when needed and enabled Japanese companies to fully meet increases in demand (Jackson and Tomioka, 2004, pg. 114). During the 1970s the majority of women between 25 and 34 years was unemployed as they had to ensure that their children would attain good outcomes in their school careers which was fundamental in Japan to get a good job. This means that the situation of the 1950s when always more women began to work reversed. Only during the 1990s the employment situation of Japanese women reverted back and about half of the female Japanese population was employed. Women usually worked in outdated industries such as "agriculture, forestry and fishing" and socially undesirable firms like SMEs and family companies (Jackson and Tomioka, 2004, pg. 116). These SMEs are part of the 80% of Japanese companies which generate only 20% of the total wealth generated by the totality of Japanese companies, meaning that the remaining 20%, the large corporations, generate 80% of the total economic value. This is the so-called 80-20 rule used in Pareto analysis stating that 20% of the subjects in question generate 80% of wealth. It can be perfectly applied to the Japanese corporate situation as explained above. Japanese SMEs are not able to provide its workforce with lifetime employment, and their employees are usually underpaid with respect to those working at big corporations (ibid., pg. 110-111).

According to Japanese cultural values women over 25 that were still single were seen as undesirable. It was common that women left the company they were working for after their marriage to have children and to take care of them and their husband. This is the reason why companies seldom trained their female candidates as they expected them to leave the company soon. It followed that women were offered only unchallenging jobs as photocopying and coffee making. Even very intelligent and skilled women that had graduated from college infrequently get a chance to prove their value. Then why should a Japanese women worry about her education and why should mothers worry to guarantee that their daughters would go to a good college which is extremely expensive in Japan? (ibid., pg. 116-117). The answer is self-evident as women with an elevated level of education will presumably find a husband that is well educated and that is thus more likely to be part of the 20% of the workforce that belongs to the top qualified employees that benefit from lifetime employment and above average salaries. It is not unusual that married couples meet each other by working for the same company. Thus, it is indeed important for a women to study to get a job in a prestigious company even if her job is not renowned. After their marriage, the primary purpose of Japanese women becomes to raise their children in a way that they themselves come to be part of the 20% of employees that is most successful. Even if today the majority of Japanese women are employed their primary role still remains to make sure that their offspring are going to be prosperous (Yoshino, 2002). Another important role of Japanese women that should not be neglected is that they are generally responsible for taking care of the parents of their husband when these get older. This is because pension systems are out of the ordinary in Japan. This makes it also uncomplicated for Japanese companies to dismiss maturing female employees as they are however required to quit their job if it is necessary to provide for their parents-in-law (Jackson and Tomioka, 2004, pg. 188).

The Equal Employment Opportunity Law that passed in 1986 did not substantially change the situation of Japanese women. Even if women were formally given the possibility to become managers it was still very rare that a women was offered a management position. They were usually hired to perform some general tasks for which no specific skills were need. This made them easily substitutable when they quit to carry for their families. On the other hand, it was also simpler to lay them off in periods of economic downturns. The Equal Employment Opportunity Law was revised in 1999 establishing that it was sanctionable to treat female and male employees differently. This revision could be interpreted as a solution to the problem of Japan's declining workforce and thus female workers had become more relevant (Kambayashi and Rutledge, 2002).

Around 1990 slightly more than 2% of Japanese managers were women. Those who aspired to become a manager had to work under the same conditions of their male counterparts, meaning endless working days and an almost inexistent assistance to take care of their children. Women were frequently discriminated as they could rarely benefit from job rotation, career advancement or pay rises which were naturally granted to male employees (Jackson and Tomioka, 2004, pg. 118).

In Japan, the class of regular employees is constituted primarily of men. Women are usually non-regular employees and thus do not benefit from lifetime employment. Additionally, they get a much lower wage than regular workers. Well-paid jobs are usually accessible only with seniority. This is a problem for female workers as they frequently have to interrupt their career path to carry for their children or parents-in-law. Even if since the enactment of the Equal Employment Opportunity Law women are no more precluded from managerial roles only view choose to pursue them. The reason is that to become a manager they would have to accept frequent relocations and endless working hours meaning that it is almost impossible for a women pursuing this career path to have children and carry after the elders as the husband still remains the family head according to the Japanese culture and will not take care of the children and the elders as his wife is working. This somehow imposes a women to choose either to pursue her career or to have a family. However, even if she chooses to devote herself to her job eliminating all other distractions it is not sure that she will get the same possibilities as a men as the Equal Employment Opportunity Law "has no enforcement provision". During economic downturns in 1992 primarily women were laid off and precluded from promotions. The fact that primary labour markets are particularly strong is a disadvantage for women. The majority of employees hired by Japanese companies are young college graduates. This is connected to the seniority system typically applied by Japanese corporations. As women often have no other chance than to quit their job once they get children, it is not easy for them to reintegrate in the professional environment afterwards with this type of policy. The thereby induced absence of adequate professional experience at the same company leads to the low ratio of women occupying managerial roles as due to the application of the seniority system by most Japanese corporations only those employees that already stayed for a long time with same company is given the chance to get promoted to a managerial position (Nakamura, 1993).

TABLE 7. Proportions of Female Workers by Occupation (1985)

Occupation	United States	$Germany^a$	Japan	
Managerial/administrative	32.8% ^b	16.7%	8.8%	
Technical/science	52.1	43.5	40.1	
Clerical	80.7	66.1	57.3	
Sales	41.3	55.6	36.7	
Service	63.8	77.6	62.9	
Crime prevention/security	13.2	5.0	2.6	
Agriculture/forestry/fishing	15.9	44.8	45.7	
Transportation/communication	13.7	11.2	5.4	
Machining, mining, manufacturing operators, laborer	19.2	17.5	30.1	
All	44.1	38.4	38.9	

Notes: "Former West Germany

Fraction (%) of female workers in each occupation.

Source: Japan, Ministry of Labour (1993).

Source: Nakamura, 1993

As shown in the graph above not even 10% of the employed Japanese women worked in an administrative or managerial position in 1985. In the former West Germany at the same time this ratio was almost twice that of Japan. In the U.S., the ratio of employed women having an administrative or managerial role was more than three times that of Japan (ibid.). As maternity leave is nearly inexistent in Japan, female workers are forced to leave the company they are working for when they have children. This fact exempts Japanese companies from providing female workers with lifetime employment (Keys, Denton, and Miller, 1994). Both lifetime employment and the seniority system, which are two practices applied by most Japanese corporations, represent an impediment for Japanese women to enter into a managerial position. They would never profit neither from lifetime employment nor from the seniority system as, at some point in time, they will have to leave the company to fulfil their duties of being a loving mother and a supportive wife. When they are able to finally re-join the working world, they are usually employed as part-time workers which have not even half of the benefits of their husbands as permanent workers (Hamada, 2005, pg. 132).

About 20% of the male workforce in Japan have a top job position and benefit from lifetime employment and overpay, this is true only for 2% of female employees. A study which has been conducted shows that the elements which contributed to the advancement of these group of women are the following:

- 1. Time dimension: it was a matter of timing, meaning looking for a job at the right moment
- 2. Place dimension: having the luck to have family members which are entrepreneurs and having the opportunity to attend a good college. This is actually not that easy as in Japan most study places are retained for male applicants. This is also the reason why also inside their own families women are discriminated as male spouses are much more supported also financially to get a valuable college degree than their sisters. One of the factors contributing to the success of a women resulted in fact the lack of coeval brothers.
- 3. Role model: especially the grandmother and the mother are the examples which Japanese women imitate in their young years. They aim to reach at least their level of education, trying to outpace them in order to accomplish what their role model was not able to achieve, and by striving to avoid miserable situations in which their role models may have found themselves as for example being married to a violent husband (ibid., pg. 120-121)

Even if it is difficult for Japanese women to succeed in traditional Japanese companies this is not the case in international Japanese corporations. Today there is a positive trend in the starting salaries of women and their career chances (ibid., pg. 122).

2.6. Future and changes in Japanese management

The previous chapters illustrated the cultural and historical influences on the Japanese management approach and aimed to reveal its peculiarities. This subchapter has the purpose to illustrate recent changes and the possible future of the Japanese management approach.

In the last years, many Japanese companies experienced economic downturns and difficulties arose. Partly problems emerged because the Japanese workforce finally woke up and began to complaint against their employment terms. Let's remember that to become part of the 20% of the most successful employees benefiting from lifetime employment, the seniority system and unionism a Japanese employee had to have various prerequisites, as to have an excellent graduation at one of the best universities of the country and ideally to know well someone important that is already working for the company to which the graduate submitted his application. Only children of very wealthy families could usually afford to send their spouses to the most promising colleges. Additionally, Japanese children had to pass difficult examinations from the cradle on, as their mothers had to prepare them for their future and were responsible for their success. Those who became part of the desired 20% usually not really had a childhood. They had to study day and night to become part of the best students only to be even considered during the selection process of new recruits by Japanese corporations (Jackson and Tomioka, 2004, pg. 149-151).

When the hardworking, young college graduates were selected and hired by a company they got a chance to prove their worthiness of becoming part of the 20% by working a lot of often unpaid overtime, being always highly efficient and putting the needs of their company before their own and that of their family. This has to be done for approximately 22 years only to discover if in the end their efforts have been worthwhile, as ultimately it is the company and thus their higher rank members which decide who gets promoted, and not everyone can become a manager as also simple workers are needed for a company to succeed. Japanese workers simply lost their patience to wait for this long time during which they had to sacrifice everything only to possibly discover that they will not be part of those that are promoted to managers. After all the sacrifices and the years that they had given to their company they had almost become unemployable. Due to their now advanced age they could no more find another employer that would give them the chance to advance. This meant they had now to realize that they had spent their most promising years sacrificing everything for a company that did not even reward their commitment and that they had however to stay working for this company as changing employer would mean to restart at the bottom with a much lower salary (ibid.).

The primary elements that caused the frustration of the Japanese workforce about their working situation were:

- 1. Endless overtime: during economic downturns Japanese companies laid off non-regular workers. Those employees that could stay had to work twice as much than before as less labour force was available and as they had to prove to be valuable to avoid being the next to be fired. Additionally, all this overtime was seldom paid.
- 2. Diminished working hours: this is the contrary complaint of point one, as some companies before or instead of laying off staff shortened their work time. The problem is that this happened suddenly without any advance warning and naturally this led to much lower wages. Those who were sent home usually had no chance to further advance in their careers.
- 3. Elimination of benefits: this was the first approach adopted by a majority of Japanese companies to reduce their salary expenses. Bonus payments and other subsidies were cut. Unfortunately, these were often essential for the employee and his family to make a living and to be able to send his children to college.
- 4. Scarce number of holidays: it was normal for Japanese managers to have a maximum of ten days per year of holidays. A large part of Japanese employees actually completely abstained to take them as following the concept of Kaizen meant that work never ends, there is always something that can and should be improved.
- 5. Health: in Japan sickness notifications usually implicate that the days stayed at home are made up for by reducing the available holidays of an employee. Thereby older employees are somehow discriminated as they statistically get sick more often (ibid.).

Before this kind of frustration that Japanese employees encountered, managers and subordinates of Japanese companies were believed to differentiate themselves from those of other countries as their relationship was built on reciprocal trust. Trusting a person means that one knows how the other person will behave and that he will be supportive during hard times. Managers and employees were thus supposed to help each other during a crisis (ibid., pg.158-167). Another important factor that lead to the disappointment of Japanese workers was the unfeasibility to adapt their occupation to the variation of their individual "tastes, preferences, qualifications, and personal life-cycle planning" without compromising their salary. Another issue of the Japanese management that has become always more evident during recent years is the discrimination of women and older employees at the workplace (Nakamura, 1993).

As described in the previous chapter women have much less opportunities to get a higher ranked job. This is also exposed by the differences in salaries shown in the table below. Women statistically did not even earn half of the salary that men earned until 1970. Additionally, the wage differentials between men and women have been always larger in Japan from 1960 to 1980 than in the U.S., the UK, France, West Germany, and Sweden. Whereby Sweden is the country where the discrimination of women has been the lowest. In fact, in 1980 women earned on average 90% of the salaries men got in Sweden, in Japan it were just 54%. Older workers instead of being protected from layoffs as in the U.S., are expected to quit their job at a certain age in Japan, and then to reintegrate in the job market by accepting to become non-regular workers and thereby tolerating much lower wages (ibid.).

TABLE 10. Male-Female Wage Differentials (Male = 100)

	Japan	United States	United Kingdom	France	West Germany	Sweden
1960	46	66	61	64	65	72
1970	54	65	61	67	69	84
1980	54	66	79	71	72	90

Source: Mincer (1985).

Source: Nakamura, 1993

Japanese managers expect continuous individual engagement from their subordinates. The higher is this engagement the lower is the need for carrying out control activities and the more their relationship is built on trust. In fact, in Japan various benefits that were granted to employees as lifetime employment or the seniority system were rarely formalized and put down in writing. However, thanks to the presence of trust these "contracts" were effective. This trust was partly lost during economic downturns when as written above Japanese managers frequently broke these morale "contracts" (Jackson and Tomioka, 2004, pg.158-167). The new generation of Japanese employees is thus no more willing to tolerate certain existing practices such as the dependence of their wage and advancement on the years worked for the same employer. These practices are now demanded to link pay and performance instead of seniority (ibid., pg. 185).

It is suggested that to improve the economic situation of Japan and to get started its recovery the following activities should be carried out by the Japanese government:

- Reduce the easiness with which Japanese banks grant loans as this causes the
 development of faulty loan agreements which spur the emergence of a financial crisis
 as debtors default and the banks begin to struggle.
- 2. Focus on highly performing industries rather than investing in those which are unproductive.
- 3. Improve management practices by concentrating on an increase of efficiency.
- 4. Invest in R&D (ibid., pg. 191)

Now the question is why did the Japanese management approach fail to guarantee continuous success? With the continuous evolution of management practices worldwide and the saturation of particular markets some statements have changed. It is no more true that large corporations are unable to fail. This was somehow correct when being part of a Keiretsu represented a competitive advantage. Today instead it is thought to be counterproductive as it limits a company's ability to grow by implementing new strategies (ibid., pg. 200). In fact, to respond quickly to the currently everchanging market environment, that is connected to globalization and the emergence of international corporations, fresh ideas are fundamental.

The Japanese management approach which counts on seniority systems and lifetime employment, trying to rely only on those individuals which have proven to be valuable members of the company, hampers the ability of Japanese companies to respond to unexpected changes of their environment (ibid., pg. 217). Slowly some Japanese companies are adapting to this circumstances by hiring knowledgeable graduates from abroad and training them to take over important managerial roles. Another interesting change can be seen in the behaviour of Japanese women which in recent years began to speak up, demanding to be considered when companies are assigning management positions and even by starting their own businesses. Characteristics of Japanese female managers that help them to respond better to recent changes than male managers, are their adaptability, pragmatism, and low loyalty to their employer. These characteristics have been developed because Japanese women have been excluded for decades from classical career paths and all the benefits they entailed (ibid., pg. 240-242).

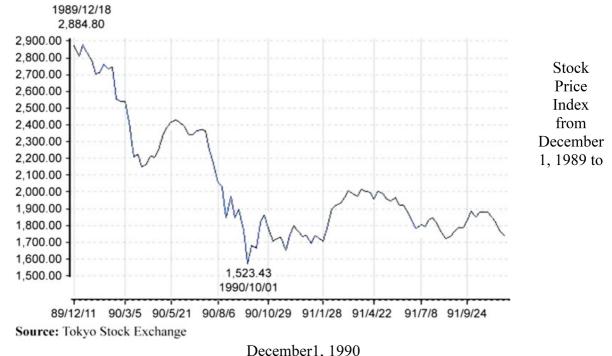
The Japanese management approach has proven to be superior to other management approaches given certain conditions as continuous long-lasting growth and high productivity. During economic downturns instead, when these conditions are missing, the Japanese management approach appeared to be inefficient (Collinson and Wilson, 2006). The problems of the Japanese management approach have actually only emerged with the formation of economic difficulties in recent decades. The issues however existed already before the arrival of the economic crisis but until that they have been neglected (Nagano 1996). Several elements imposed the Japanese to change their management approach:

- 1. Various markets were saturated being characterized by moderate growth patterns, reduced regulations which lead to an intensified competition and the transformation from a product focus to target primarily the offering of high-quality services.
- 2. The economic downturn lead to a reduction in revenues and earnings.
- 3. The composition of Japanese companies was designated by overstaffing and ever rising wage costs as on average the Japanese workforce was getting older.
- 4. The society in Japan had changed becoming older and prosperous.
- 5. The world economy exerted its influence on Japanese companies as with the rise of the yen exports decreased and the number of rival companies increased.
- 6. The development of data processing caused an increment in velocity and dimension of the information flow (Firkola, 2006).

The Japanese economy began to struggle as the yen began to appreciate. This hampered the ability of Japanese companies to offer quality products at a low cost. Additionally, it decreased also exports as Japanese products were no more as cheap as usually. To adapt to this change Japanese companies had to move those activities, that did not add much value but that were necessary, abroad to countries where wages and production costs were much lower. This required an adaption of the Japanese management approach and the divergence from the seniority system and lifetime employment. After the economic downturn caused by the rise of the yen, Japanese companies have been able to increase their productivity again and were able to regain their competitiveness thanks to the adaption of their management practices. The rise in productivity caused a reduction in wage costs per unit. This was possible thanks to offshoring certain activities and by focusing on value adding industries moving away from unprofitable ones. This change has been possible due to the modification of the reward and employment system employed by Japanese companies (Mroczkowski and Hanaoka, 1989).

The resurgence of Japanese companies was feasible as Japanese management practices continuously adjusted to changing economic, competitive, and social conditions. In fact, in the nineteenth century the three pillars of Japanese management were not applied. They emerged to adapt to the high increases of demand. Before the application of lifetime employment, for example, Japanese employees were consistently fired as economic downturns emerged. The three treasures were heavily adopted in the 1950s and 1960s to retain employees as these years were characterized by severe labour shortages. When the economic growth slowed down in the 1970s modifications of Japanese management practices were needed to cope with the changes in demand rates. The number of newly hired employees decreased extremely due to the lower demand rates and the establishment of automated work processes. This caused the average age of the Japanese workforce to increase. Due to the seniority system older employees benefited from higher wages and thus the salary costs per employee increased. To cope with this issue Japanese companies began to modify their reward and salary systems by focussing less on seniority and more on performance (ibid.).

As in the 1980s the value of the dollar increased Japanese companies gained competitiveness and exports flourished. Then, in 1985 the value of the yen rose, thus Japanese companies faced severe difficulties to remain competitive and exports fell drastically (ibid.). Thanks to the appreciation of the yen investments in foreign countries rose. Also, internal investments boomed, and prices of real estate climbed. This caused the Japanese to speculate on capital markets and finally led to a severe financial crisis. Stock prices completely plummet as shown in the graph below (Olejniczak, 2013).



Source: Vaszkun and Tsutsui, 2012

The period between the last years of the 1980s and the beginning years of the 1990s in Japan is known as bubble economy. The issues faced during this time period cannot be solely ascribed to inefficiencies of the Japanese management approach but are also connected to the flawed adaption attempts of Japanese companies to the emerging globalization. Numerous Japanese firms tried to adjust to the changing economic and competitive conditions by imitating American companies instead of focussing on the adjustment and development of their individual management practices. The economic downturn led to a decline of Keiretsu structures, as there was no assurance that share prices would not fall and thus the member companies of Keiretsu began to reduce their cross holdings (Dobi and Bugàr, 2008).

During the bubble economy various Japanese companies became insolvent and unemployment rates jumped. Those who wanted to survive had to reduce costs and capacity, possibly without laying off the majority of their workforce. Additionally, they had to find ways to stimulate their employees during this difficult times to become more efficient. To reduce capacity and costs most Japanese companies stopped to hire new workers and began to reduce overtime. Additionally, they made use of job rotation and reassignment of employees to those activities which were most important to guarantee the survival of the company. Salaries and bonusses of the whole workforce were reduced in order to prevent the adoption of layoffs. Additionally, workers were transferred to and leased between companies (Mroczkowski and Hanaoka, 1989).

As the average age of employees increased a majority of the Japanese workforce was overpaid. This meant to be profitable Japanese companies had to change their incentive systems and link pay not to seniority but to performance. To decrease the payroll expenses Japanese companies also began to offer their older employees incentives to retire earlier. However, instead of completely changing the old system and excluding the seniority component from the equation that determined the final pay, Japanese companies integrated a new component to the formula. This component was individual performance. The impact of this component differed by company and job position. It could increase or decrease total salary. Overall, Japanese companies are slowly shifting from salaries based on seniority to pay for performance (ibid.). This shift may be seen as a variation in cultural values from appreciating long-term employment to treasuring quality employment.⁴ A research carried out by the Ministry of Labour in 1989 indicates that approximately 80% of the Japanese corporations apply both seniority and performance to determine the wages of their workforce (Morris and Wilkinson, 1995).

Recent studies show that the implementation of this new incentive system by Japanese companies is anything but flawless. A majority of the Japanese workforce is displeased with the new practice. It is oftentimes just seen as a way to reduce wages. The problems of the incorrect implementation of the system could be connected to inadequate schooling about appraisal techniques, to the incorrect reflection of the valuation on salary, and ambiguous assessment procedures (Firkola, 2006).

Not only the seniority system has been slowly disintegrated, but also lifetime employment has undergone change. It has been gradually limited to an always smaller fraction of the Japanese workforce so that only the most essential employees that were able to guarantee the success of the company were offered this benefit. Additionally, also the recruitment practices are changing in Japan. As in the past primarily outstanding college graduates without any work experience or people lacking specific skills (let's remind of the heavy employment of temporary workers) were hired, in recent years Japanese companies were looking for candidates that already possessed required skills to carry out a determined job that was clearly defined. In the past companies rarely hired workers to carry out specific tasks. This kind of workers do not benefit from lifetime employment as during downturns it is much more difficult to reassign them because they have only the specific skills required to perform a precise job. If they do not work as efficiently as expected their wages may be decreased or they will be laid off. This causes the secondary labour market to gain power (Mroczkowski and Hanaoka, 1989). In order to be able to maintain lifetime employment in some way and simultaneously decrease labour expenses to adopt to economic downturns Japanese companies reduced wages, employed a lower number of recruits, incentivized employees to make use of early-retirement, employed reassignment of workers to companies being part of the same corporate group when necessary, and raised the fraction of temporary workers (Firkola, 2006).

In the future probably two employment paths will exist in Japanese firms. One that still benefits from lifetime employment and employs job rotation. Those employees will also have the possibility to be gradually promoted. The second path instead will be composed of employees which do not benefit from lifetime employment and could be constituted by workers having specific skills which will not move up the ranks of a single company but that will pursue their career by accepting always higher positions at different companies (Mroczkowski and Hanaoka, 1989). The probable preservation of lifetime employment also in the future suggests that a large part of the Japanese workforce and companies still suppose that its advantages exceed its disadvantages (Firkola, 2006).

Also, the last of the three pillars has been subject to change. As Japanese employees are shifting from valuing collective efforts to focussing on individual performance their affiliation to labour unions has drastically decreased from the 1970s onwards. In 1970 over 35% of the Japanese workforce was a union member. In 1998 this percentage has diminished by more than a third. Statistically the largest fraction of Japanese employees being affiliated to a union is found in large corporations.⁴ Overall labour unions have gradually lost their importance in Japan. In recent years various companies have decided to stop negotiations with labour unions and thus to refrain from raising the base salary (Firkola, 2006).

The changes that the Japanese management approach is facing today do not intend to tear down the "old" system but to modify it by making it more flexible and able to adapt to the continuously changing business environment and the dynamic economic situation. It can be assumed that Japanese companies will be capable of successfully managing the current issues, as also in the past (for example following WWII) they effectively managed disrupting changes well. They will probably regain their competitiveness due to their ability to deal well with alterations of their environment. This ability will presumably become always more important to facilitate the survival of companies as in the last decades disrupting changes have been commonplace (Mroczkowski and Hanaoka, 1989).

The question is what caused the development of such an ability? The Japanese are profoundly convinced that their employer guarantees them security of employment and wage. This can be seen as true as since the 1950s employers tried to utilize layoffs only as a last resort even in difficult times. This psychological safety caused the majority of the Japanese workforce to accept almost unquestionably constant changes in processes and technology without fearing to be fired. The "resistance to change" is almost inexistent in Japanese companies, contrarily to Western companies were employees usually are less inclined to accept change. This may be a consequence of the approach to training of Japanese companies which is fundamentally different than that applied in Western countries. In Japan, the whole workforce is continuously trained until retirement. In Western countries instead training is connected to advancement and thus primarily employees occupying higher ranks are educated by providing them with frequent training courses. Due to job rotation frequently employed by Japanese companies employees are instructed to carry out various jobs. An outcome of the Japanese training approach is the enhancement of "work quality and procedures" (Drucker, 1971).

To institute an unfamiliar engine or product Japanese companies present these to their employees during training courses. This usually causes the acceptance of the newly established change. Thanks to continuous training the learning curve of Japanese employees steadily increases and so does their productivity. This is also the reason why the Japanese have faith in their older employees as these are regarded as more productive than the younger ones. In Western countries the contrary is believed (ibid.).

Training of Japanese employees is not focussed on a single specific function. Workers are meant to have a full overview of all jobs that are at the same level of that which they are currently carrying out. This enables them to be more flexible and to be reassigned to do those tasks which at a certain point in time result to need more manpower than the others. This means also that Japanese companies are able without having big difficulties to adjust to changes in demand. As when for example product A, which previously was highly requested, suffers a decline in demand and instead product B, which previously was not very demanded, experiences a huge increase in demand a Japanese company is usually much faster in adapting to this change than a Western one because in Western companies training activities are focussed on single functions in order to generate qualified specialists. It is thus more difficult to assign employees to different functions when required (ibid.).

A way for Japanese companies to put up with continuously worse economic conditions could be the adoption of advanced technological standards and the employment of highly skilled employees able to implement them. This could save the Japanese economy as it would increase efficiency, performance and product quality thereby providing a competitive advantage. To be able to arrive at this point Japanese companies would have to make heavy investments in R&D. Additionally, lifetime employment and the seniority system have to be abolished to guarantee the future success of Japanese companies. They hinder the full evolvement of young promising employees and they give them little incentive to come up with ground-breaking ideas that could immediately boost the company's performance as with the seniority system in place they are not paid for their improvement of performance. In the future also Japanese employees, like their American and European counterparts, should be compensated, if they work more efficiently, by increases in salary and promotions. The future will probably not be a management approach that is typical for a certain country, but one that depends on the environment and situation of a specific company (Nagano, 1996).

The adjustments of labour practices in Japan belong to a broader rethinking process of the Japanese from focussing on long-term relations to concentrate on globalisation and recent shifts in the marketplace. The conversion of the remuneration practices in Japan suggests that the long-term improvement of competences makes way for short-term achievements and success. The increment of temporary workers implies transitory relationships between employers and employees. This means that the lifelong training which employees had undergone in the past is now applied to a lower extent. Investments in employee development are decreasing. Nearly solely for the development of managerial talent Japanese companies continue to stick with the original management practices. Excluding lifetime employment, the foundation of the former Japanese management approach is collapsing (Keizer, Umemura, Delbridge and Morgan, 2012).

Conclusion

The 1950s and 1960s are the years during which the Japanese management approach emerged. Between the 1970s and 1980s its success reached its maximum. During the 1990s it has been copied by various American and Western companies and criticism emerged as several flaws were discovered. In the twenty-first century the leading edge of the Japanese management approach has begun to deteriorate (Olejniczak, 2013).

The development of the Japanese management approach has been a lengthy process that still today is not concluded. Its roots can be found in the early seventeenth century and the then prevalent working activity, the rice farming, and the religious beliefs and values deriving from Confucianism which was present already prior to this period in time. During the last centuries until now Japanese management practices have been constantly evolving by adapting to the continuously changing conditions to which Japanese companies were exposed. The values on which the Japanese management approach is built have however until recently always remained the same: collectivism, avoidance of uncertainty and orientation toward long-term goals (Jackson and Tomioka, 2004, pg. 27) (Kobayashi et al., 2010).

In the Japanese culture it is fundamental to belong to a group and to devote oneself completely to this group. The aims of the group are much more important than individual ones. This group was usually the company for which a Japanese worked. It has been true that until recently the company was seen as family by the Japanese and they sacrificed themselves by working endless overtime and accepting cuts in wages only to guarantee the success of the company. Ultimately collectivism is making room to individualism, as Japanese workers are realizing that they are no more willing to put company needs before their own desires. The Japanese have begun to long for more leisure time which they can spend with their families or to pursue their hobbies. The switch from collectivism to individualism is further highlighted by the reduction in Keiretsu networks.

Also, the avoidance of uncertainty is becoming less important to the Japanese as they are demanding a shift from wages based on seniority to pay for performance incentives. With the seniority system Japanese workers knew that when they would get older, they would get higher salaries. This is not necessarily the case when salaries are linked to performance, however the new system ensures that also young hardworking employees have the possibility to be adequately remunerated for their commitment.

Additionally, lifetime employment is provided increasingly to a lower fraction of the Japanese workforce. Even if it is still seen as important and advantageous by both Japanese companies and workers, only those occupying the highest ranks in Japanese companies are now benefitting from it. This means that the Japanese are less focussed on the long-term horizon than in the past. This is shown also by the adaption of the remuneration system, as ultimately the Japanese prefer to be remunerated, focussing on the short term, for their current performance than on the long term for their length of service.

As stated in the first chapter, the Japanese culture was characterized both by masculine and feminine values in the past, even if masculine ones stood out. Currently it is shifting always more toward masculine values as long-term orientation, uncertainty avoidance and groupism are diminishing. In fact, masculine cultures are more performance oriented. This is also true for Japanese companies in recent years as they apply pay for performance instead of the seniority system (Jackson and Tomioka, 2004, pg. 40-45).

The Japanese management approach appears to adjust to the continuous alterations in circumstances that Japan was, is, and probably will be facing also in the future. It is thus challenging trying to predict how the Japanese management approach will look like in the future. This will depend on the business development worldwide, the changes in environment and general circumstances. However, until now the Japanese have always been able to adjust after some time, even following the experience of considerable economic losses (Kobayashi et al., 2010).

What can be observed is that Japan always tried to become more efficient and productive. For this reason, they emulated American practices when they recognized that these were more successful than their own. To cope with the issues that globalization triggered Japanese companies had to look at their Western and American counterparts to remain competitive. The Japanese did however not just copy these practices as other countries did, but they adjusted them to fit their own specific requirements and situation. This is why the Japanese stand somehow out as those which are able to effectively adapt what they have learned and to improve it. They are not really good as innovators, but they are excellent borrowers and adaption artists. This statement is supported by the fact that Japanese companies seldom invent new products but usually develop new enhanced versions of already existing ones that commonly encounter high demand as they are characterized by additional product features, higher quality and often lower prices (Kobayashi et al., 2010).

As Japanese companies were able to successfully apply American practices in the 1950s by modifying them, they created a new approach to management, namely the lean strategy. When American and Western companies understood the superiority of this approach, they began heavily to copy it. Thus, it is not true that only the Japanese have copied from foreign management approaches. Today a large part of American and Western companies are still applying lean practices. This means that Japan has in some way revolutionized production and management practices, even if at the moment Japanese companies are struggling with some of their management practices and are trying to adjust to their changing environment. Currently, the Japanese management approach is changing by adopting some American and Western ideas regarding management practices. This can also be seen in the shift of Japanese values. What is still of crucial importance for the Japanese is the prosperity of the group they belong to, this can be seen as the family, the company or even the whole country (Fukuda, 1986).

In conclusion it can be stated that the differences between the Japanese management approach and foreign approaches to management are eroding. This is provoked by the fact that globalization stimulates an ever-increasing requirement of efficiency which ultimately led Japanese, Western and American companies to imitate that management practices which at a certain point in time generated the highest improvement in efficiency. Dissimilarities however still exist especially with regards to the individual values and culture of a country (Kobayashi et al., 2010).

References

¹https://ugeo.urbistat.com/AdminStat/it/it/demografia/dati-sintesi/italia/380/1 (accessed 7 April 2020)

¹http://www.deagostinigeografia.it/wing/schedapaese.jsp?idpaese=071# (accessed 7 April 2020)

²https://oec.world/it/profile/country/jpn/ (accessed 7 April 2020)

³https://www.referenceforbusiness.com/management/Int-Loc/Japanese-Management.html (accessed 23 April 2020)

⁴https://www.referenceforbusiness.com/encyclopedia/Int-Jun/Japanese-Management-Techniques.html (accessed 23 April 2020)

Abegglen J. C. (1958), "The Japanese Factory", Glencoe: The Free Press

Adler N. J., Campbell N. C., and Laurent A. (1989), "In search of an appropriate methodology: from outside the People's Republic of China looking in", Journal of International Business Studies, spring, pg. 61-74

Aikawa Y. (1934), "New capitalism and holding companies", Tokyo: Tokyo, Bankers Association.

Beale A. and Means G. (1932), "The modern corporation and private property" New York: Macmillan

Bellah R. N. (1957), "Tokugawa Religion: The Values of Pre-industrial Japan", Free Press, Glencoe

Bhappu D. A. (2000), "The Japanese Family: An Institutional Logic for Japanese Corporate Networks and Japanese Management", Academy of Management Review, Vol. 25, No. 2, pg. 409-415

Bird A. (2002) "Encyclopaedia of Japanese Business and Management", London: Routledge

Brown W. (1966), "Japanese Management: The Cultural Background", Monumenta Nipponica, Vol. 21, No. 1/2, pg. 47-60

Burlikowska M. D. and Szewieczek D. (2009), "The Poka-Yoke method as an improving quality tool of operations in the process", Journal of Achievements in Materials and Manufacturing Engineering, Vol. 36, No. 1

Christopher R. C. (1984), "The Japanese Mind", London: Pan Books

Claessens S., Djankov S., Lang P. H. S. (2000), "The separation of ownership and control in East Asian corporations", Journal of Financial Economics 58: 81–112

Cole R. (1972), "Permanent Employment in Japan: Facts and Fantasies", Industrial and Labor Relations Review, No. 26, pg.: 615-630

Cole R. (1979), "Work mobility and participation", Berkeley: University of California Press

Collinson S. and Wilson D. C. (2006), "Inertia in Japanese Organizations: Knowledge Management Routines and Failure to Innovate", Organization Studies 27(9): 1359–1387

Cool O. K. and Lengnick-Hall A. C. (1985), "Second thoughts on the Transferability of the Japanese Management Style", Organisation Studies, EGOS

Cordeiro W. (1999), "Can We Learn Management Techniques From the Japanese Ringi Process?", Business Forum

Cutts R. L. (1992), "Capitalism in Japan: cartels and keiretsu", Harvard Business Review 70, pg. 48-55

Dobi S. and Bugàr L. (2008), "Japanese Management Strategies", MEB 2008 – 6th International Conference on Management, Enterprise and Benchmarking

Doi T. (1962), "Amae: A Key Concept for Understanding Japanese Personality" In Japanese Culture: Its Development and Characteristics. R. K. Smith and R. K. Beardsley, eds. pg. 132–139. Chicago: Aldine.

Doi T. (1973), "The Japanese Patterns of Communication and the Concept of Amae", The Quarterly Journal of Speech 56

Dore R. and Sako M. (1998), "How the Japanese Learn to Work", London: Routledge

Dower J. (2000), "Embracing defeat: Japan in the aftermath of World War II", East Rutherford, NJ: Penguin Books

Drucker P. (1971), "What We Can Learn from Japanese Management", Harvard Business Review

Drucker P. (1999), "The Frontiers of Management", New York: Penguin

Durlabhji, S. (1993) "The influence of Confucianism and Zen on the Japanese organization", In Subhash Durlabhji & Norton E. Marks (Eds.), Japanese business: Cultural perspectives, NY: State University of New York Press.

Firkola P. (2006), "Japanese Management Practices Past and Present", Econ. J. of Hokkaido Univ., Vol. 35, pg. 115-130

Fletcher W. M. III (1989), "The Japanese business community and national trade policy 1920–1942", Chapel Hill: University of North Carolina Press

Fruin W. M. (1992), "The Japanese enterprise system: Competitive strategies and cooperative structures", New York: Oxford University Press

Fry E. (1991), "Subtlety and the art of Japanese management", Business Credit

Fukuda J. K. (1986), "What can we really learn from Japanese management?", Journal of General Management, Vol. 11, No. 3 Spring

Gao B. (1998), "Efficiency, culture, and politics: the transformation of Japanese management in 1946—66", The Editorial Board of The Sociological Review 1998, Blackwell Publishers

Gapp R., Fisher R. and Kobayashi K. (2008), "Implementing 5S within a Japanese context: an integrated management system", Griffith Business School, Griffith University, Bundall, Australia

Gerlach M. L. (1987), "Business alliances and the strategy of the Japanese firm", California Management Review, No. 30, pg.: 126-142

Gerlach M. L. (1992a), "Alliance capitalism: The social organization of Japanese business", Berkeley: University of California Press

Giddens A. (1989), "Sociology", Oxford: Polity Press

Hamada T. (2005), "The Anthropology of Japanese Corporate Management", in A Companion to the Anthropology of Japan by Robertson J., Blackwell Publishing Ltd

Hassan M. K. (2013), "Applying Lean Six Sigma for Waste Reduction in a Manufacturing Environment", American Journal of Industrial Engineering, 2013, Vol. 1, No. 2

Hofstede G. and Bond M. H. (1988), "The Confucius connection: from cultural roots to economic growth", Organizational Dynamics 16, pg: 5–21

Hofstede G. (1980), "Culture's Consequences: International Differences in Work-Related Values", Beverly Hills: Sage

Hofstede G. (1991/94), "Cultures and Organisations: Intercultural Cooperation and its Importance for Survival", London: HarperCollins

Hofstede G. (2001), "Culture's Consequences: Comparing Values, Behaviors, Institutions and Organizations Across Nations", New York: Sage

Hoshi T. and Kashyap A. (2001), "Corporate financing and governance in Japan: The road to the future", Cambridge: MIT Press

Hsu R. (1999), "The MIT Encyclopedia of the Japanese Economy"; 2nd. ed., MIT Press, Cambridge, MA.

Iwata R. (1982), "Japanese-style management: Its foundations and prospects", Tokyo: Asian Productivity Organization

Jackson K. and Tomioka M. (2004) "The Changing Face of Japanese Management", Routledge: Taylor & Francis Group

Jensen M. and Meckling W. (1976), "The theory of the firm: Managerial behavior, agency costs and ownership structure", Journal of Financial Economics, 3, pg. 305–60

Kalleberc A. and Reve T. (1993), "Contracts and commitment: economic and socio-logical perspectives on employment relations", Human Relations, No. 46, pg.: 1103-32

Kambayashi T. and Rutledge B. (2002) "Outstanding individuals", in Japan Inc. magazine, October

Katayama H. and Bennett D. (1996), "Lean production in a changing competitive world: a Japanese perspective", International Journal of Operations & Production Management, No. 2

Kato T. (1957), "History of banks in Japan", Tokyo: University of Tokyo Press.

Keizer A. B., Umemura M., Delbridge R., and Morgan G. (2012), "Japanese Management 20 Years On: The Contemporary Relevance of Japanese Management Practices", AIM Executive Review, Advanced Institute of Management Research.

Keys B. J., Denton T. L., and Miller R. J. (1994), "The Japanese Management Theory Jungle-Revisited", Journal of Management, Vol. 20, No. 2

Kobayashi K., Amis JM., Irwin R., and Southall R. (2010), "Japanese post-industrial management: The cases of Asics and Mizuno", Sport in Society, vol. 13, no. 9, pp. 1334-1355

Kolm, S. C. (1985), "Must One Be Buddhist to Grow? An analysis of the cultural basis of Japanese productivity", in P. Koslowski (Ed.), Economics and Philosophy, pg. 221-242, Tubingen: Mohr Siebeck

Komiya R., Okuno M., and Suzumura K. (1988), "Industrial policy of Japan", New York: Academic Press

Kono T. (1988), "Corporate Culture Under Evolution", Kodansha, Tokyo

Kono T. (1990), "Strategy and Structure of Japanese Enterprises", London: Macmillan

Kumon S. (1982), "Some principles governing the thought and behaviour of Japanists", Journal of Japanese studies

La Porta R., Silanes L. S., Shleifer A., and Vishny R. (1999), "Corporate ownership around the world", Journal of Finance 54: 471–520

Martinsons M. G. and Davison R. M. (2007), "Strategic decision making and support systems: Comparing American, Japanese and Chinese management", Elsevier, Decision Support Systems 43, pg: 284-300

Matsumoto D. (2002), "The new Japan: Debunking Seven Cultural Stereotypes", London: Nicholas Brealy

Mead R. (1998), "International Management", Oxford: Blackwell

Mead R. (2000), "Cases and Projects in International Management", London: Routledge

Mendenhall E. M. and Oddou G. (1986), "The Cognitive, Psychological and Social Contexts of Japanese Management", Asia Pacific Journal of Management, Vol. 4, No. 1

Micklethwait J, and Wooldridge A. (2003), "The Art and Practice of Japanese Management"

Morck, R. and Nakamura M. (1999), "Banks and corporate control in Japan", Journal of Finance 54:319–39

Morck R. and Nakamura M. (2005), "A Frog in a Well Knows Nothing of the Ocean: A History of Corporate Ownership in Japan", NBER Chapters, in: A History of Corporate Governance around the World: Family Business Groups to Professional Managers, pg. 367-466, National Bureau of Economic Research

Morck R., Stangeland D. A., and Yeung B. (2000), "Inherited wealth, corporate control, and economic growth: The Canadian disease", in: Concentrated corporate ownership, ed. Randall Morck, pg.: 319–69, Chicago: University of Chicago Press

Morck R. and Yeung B. (2004), "Family firms and the rent seeking society", Entrepreneurship Theory and Practice 28: 391–409

Morikawa H. (1976), "Local Zaibatsu", in: Japanese Zaibatsu, ed. S. Yasuoka, pg.: 146–175, Tokyo: Nikkei

Morikawa H. (1980), "Business history research of zaibatsu", Tokyo: Toyo Keizai

Morikawa H. (1992), "Zaibatsu: The rise and fall of family enterprise groups in Japan", Tokyo: University of Tokyo Press

Morris J. and Wilkinson B. (1995), "The transfer of Japanese management to alien institutional environments", Journal of Management Studies, No. 32:6, pg. 719-730

Mroczkowski T. and Hanaoka M. (1989), "Continuity and Change in Japanese Management", California Management Review

Mueller F. (1998), "Human resources as strategic assets: an evolutionary-based theory", in Mabey, Salaman and Storey

Murphy K., Shleifer A., and Vishny R. (1989), "Industrialization and the big push", Journal of Political Economy 97:1003–26

Murphy K., Shleifer A., and Vishny R. (1991), "The allocation of talent: Implications for growth", Quarterly Journal of Economics 106 (2), pg. 503–30

Murakami Y. (1984), "Ie society as a pattern of civilization", Journal of Japanese studies, Vol. 10

Nagai M. and Bennett I. W. (1953), "A summary and analysis of: The Familial Structure of Japanese Society" by Takeyo-shi Kawashima. Southwestern Journal of Anthropology, pg. 239-250

Nagano T. (1996), "The History and Future of Japanese Management", Occasional Paper No. 26, Occasional Paper Series Center on Japanese Economy and Business Columbia Business School

Nakamura M. (1993), "Japanese Industrial Relations in an International Business Environment", North American Journal of Economics & Finance, 4(2):225-251

Nakane C. (1983) "Ie", In Kodansha encyclopedia of Japan, Vol. 3, pg. 259-260, Tokyo: Kodansha

Nakase T. (1979) "Labor and Management, Proceedings of the Fourth Fuji Conference" in Nakagawa, K. (Ed.), The introduction of scientific management in Japan and its characteristics, University of Tokyo Press, Tokyo, pg. 171-202

Nakayama S. (1973), "Management by Participation in Japan", Management Japan, Vol. 6, No. 4

Nisbett R. F. (2004), "The Geography of Thought: How Asians and Westerners Think Differently - and Why", Free Press, New York

Nitobe I. (1969), "Bushido: The Soul of Japan", Tokyo: Tuttle

North D. C. (1990), "Institutions, Institutional Change and Economic Performance", Cambridge: Cambridge University Press

Odaka K. (1993), "The source of Japanese management", State University of New York Press, New York.

Oh K. T. (1976), "Japanese Management -A Critical Review", Academy of Management Review, California State University, Fullerton

Okazaki T. (1994), "The Japanese firm under the wartime planned economy", In: The Japanese firm: Sources of competitive strength, ed. Masashiko Aoki and Ronald Dore, 350–75. Oxford University Press.

Okazaki T. and Yokoyama K. (2001), "Governance and performance of banks in prewar Japan: Testing the "organ bank" hypothesis quantitatively", Center for International Research on the Japanese Economy Discussion Paper no. CJRJE-F-111, University of Tokyo, April

Okimoto D. (1989), "Between MITI and the market. Stanford", CA: Stanford University Press

Olejniczak T. (2013), "Japanese Management: 50 Years of Evolution of the Concept"; Acta Asiatica Varsoviensia; No. 26, 2013

Ouchi W. G. (1981), "Theory Z: How American business can meet the Japanese challenge", New York: Avon Books

Parkes A. (2015), "Lean Management Genesis", De Gruyter Management, Vol. 19, No. 2

Renshaw J. (1999), "Kimono in the Boardroom: The Invisible Evolution of Japanese Women Managers", Oxford: Oxford University Press

Robertson J. (2005), "A Companion to the Anthropology of Japan", Tomoko H., Ch. 9: The Anthropology of Japanese Corporate Management, Blackwell Publishing Ltd

Rowe A. J. and Boulgarides J. D. (1983), "Decision styles — a perspective", Leadership and Organization Development Journal, Vol. 4, pg: 3–9

Sagi S. (2015), "Ringi System: The Decision Making Process in Japanese Management Systems: An Overview", International Journal of Management and Humanities, Vol. 1, No. 7

Sakudo Y. (1978), "Management in the Showa-Kyoho Period", Diamond-sha, Tokyo

Sasaki S. (1988), "Scientific Management Movements in Pre-War Japan", Meiji University

Schlunze R. (2002), "Locational Adjustment of Japanese Management in Europe", Asian Business & Management", Vol. 1

Sheard P. (1994), "Interlocking shareholdings and corporate governance", in: The Japanese firm: Sources of competitive strength, ed. Masahiko Aoki and Ronald Dore, 310–49, Oxford University Press

Slack N., Brandon-Jones A., and Johnston R. (2016), "Operations Management", Pearson, Eighth Edition

Sullivan J. J. (1992), "Japanese Management Philosophies: From the Vacuous to the Brilliant", California Management Review, Winter

Takahashi K. (1930), "Kabushiki Gaisha Bokokuron (The stock company: A cause of national decay)", Tokyo: Banrikaku Shobo

Tamaki H. (1976), "History of Japanese zaibatsu", Tokyo: Shakai Shisosha

Tanner Pascale, R., and A. G. Athos (1981) "The Art of Japanese Management", Harmondsworth: Penguin

Teranishi J. (1999), "*The main bank system*", in: The Japanese economic system and its historical origins, ed. Tetsuji Okazaki and Masahiro Okuno-Fujiwara, 63–96, Oxford University Press

Trompenaars F. and Hampten-Turner C. (1998), "Riding the Waves of Culture: Understanding Diversity in Global Business", New York: McGraw-Hill

Tsuda M. (1977), "Study of Japanese Management Development Practices", Hitotsubashi journal of arts and sciences, 18(1): 1-19

Vaszkun B. and Tsutsui M. W. (2012)," A modern history of Japanese management thought", Journal of Management History, Vol. 18, Iss: 4, pg. 368 - 385

Vogel E. F. (1979), "Japan as a Number One: Lessons for America", Harvard University Press

Wagatsuma H. (1983), "Tatemae and Honne", Kodansha encyclopedia of Japan, Vol. 7, pg. 349

Williams R. (1985), "Keywords: A Vocabulary of Culture and Society", Oxford University Press

Womack J., Jones D., and Roos D. (1990), "The Machine That Changed the World: The Story of Lean Production", HarperCollins, pg. 225

Womack J. and Jones D. (1996), "Lean Thinking", Free Press

Wood S. (1989), "The Japanese Management Model: Tacit skills in shop floor participation", Work and Occupations; Vol. 4, pg. 440-460

Yafeh Y. (2000), "Corporate governance in Japan: Past performance and future prospects", Oxford Review of Economic Policy 16 (2): 74–84

Yafeh Y. (2004), "Japan's corporate groups: Some international and historical perspectives", in: Structural impediments to growth in Japan, ed. M. Blomstrom, J. Corbett, F. Hayashi, and A. Kashyap. Chicago: University of Chicago Press

Yokozawa K., Steenhuis H.M. and Bruijn E.J.D. (2009), "Recent Experience with Transferring Japanese Management Systems Abroad", Journal of Strategic Management Studies, Vol. 2, No. 1, 1–16

Yoshino, A. (2002) 'This may make you choke on your sushi', The Times Higher Education Supplement, 31 May