# The Changing Dynamics of a Japanese Company Amid the Globalizing Business Environment: A Case Study of Hitachi Construction Machinery Company

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# Introduction

Globalization has influenced major changes in existing companies as they expand their market to cater to current trends. This has been apparent in Japan as its decreasing population has stunted domestic market expansion, pushing the need to expand overseas. Many large Japanese companies have been slow to change their traditional, distinct business model that led to past financial success. With this slow adaptation, Hitachi Construction Machinery (HCM), one of Hitachi Ltd.'s eleven businesses, has made a concerted effort to transform itself from a limited Japanese company to a global company. Stephen Harner a business critic based in Japan and China states, "to watch the restructuring going on at Hitachi Ltd. is to see how and where Japan's large corporations must, and can, change to survive and compete globally" (Harner 2012). This highlights how Hitachi Ltd. has been a forerunner among Japanese companies because of its efforts to adapt to global business environments.

It has been imperative for HCM to adapt to a globalizing business environment in order to survive. Demographic and economic trends in the Japanese market have encouraged many Japanese companies to look overseas for revenues and profits.

Japan's shrinking population, in part a result of low fertility and government policies discouraging immigration, is a threat to its home economy highlighting the need to globalize. In the Swiss Federal Institute of Technology's 2014 survey of economic globalization, Japan had the lowest score of the thirty-four Organization for Economic Cooperation and Development countries. Among other things the measure recognizes a country's level of international trade, the extent of its trade barriers, and the stock of foreign direct investment at home and abroad ("KOF Index of Globalization" n.d.). As a 2011 article, "Japan's Globalization Imperative," published by the global consulting firm McKinsey & Company tersely mentions, "Many Japanese companies should be global leaders, given their manufacturing and technological prowess and overall size and scale. But they are not" (Iwatani et al. 2011, 90). Although many Japanese companies are reluctant to globalize their business models, HCM has made changes so that it can effectively compete abroad.

McKinsey & Company suggests five steps that Japanese companies should undertake in an attempt to successfully operate in a globalized market. The McKinsey report recommends (Iwatani et al. 2011, 3):

- 1. Make the case for globalization to employees
- 2. Adopt English as the company language
- 3. Design a talent management strategy
- 4. Build a global marketing function
- 5. Gain more from strategic corporate development by mergers, acquisitions, and strategic alliances

In our analysis of HCM we found evidence that it has engaged in these actions and our three collaborative research projects explore the first four recommendations.

HCM was first established in December of 1955 as a subsidy of Hitachi Ltd. It was not until fifteen years later in 1970, that Hitachi Construction Machinery Company Ltd. was established and became a subsidiary of Hitachi Ltd. ("History: Hitachi Construction Machinery" n.d.). In 2006 HCM held sixth place in sales of construction machinery in the world market and by 2013, it had moved to third place, currently positioned after Caterpillar, a U.S. company and Komatsu, a Japanese company. HCM's growth has largely depended on its expansion in the global market. Its overseas sales are now almost 80% of its total sales with the company expecting that percentage to

grow. HCM now consists of six major domestic branches, which include: HCM Headquarters in Tokyo; Tsuchiura Works which hosts a full range of equipment including small- and medium-sized hydraulic excavators and a Technical Research Center; Hitachinaka Mining that manufactures large and ultra-large hydraulic excavators and essential parts for mining dump trucks, wheel loaders, crawler cranes and other machinery; Hitachinaka Rinko Works, located within one of Japan's major ports, Ibaraki Port (Hitachinaka Port), which manufactures large and ultra-large hydraulic excavators, mining dump trucks, and supplies these products to respective countries worldwide; Hitachi Kenki Japan that focuses on domestic sales and rental; and Hitachi Tierra Works manufactures mini-excavators (Figure 1) ("HCM's Manufacturing Bases - Hitachi Construction Machinery" n.d.) ("Hitachi Tierra" n.d.).

Three projects investigated what changes HCM has made in its operations and strategies in response to globalization, and how effective those changes have been.

Research was conducted in Japan at all six HCM branches. A literature review provided evidence that HCM has engaged in business model changes in response to globalization including: altering their promotion strategies, striving to unify global branches, and diversifying their product lines. Three collaborative research projects explored these changes, including: the diversification of the workplace by including foreign and female workers; language training and employee unification strategies through HCM's Kenkijin spirit program; and HCM's response to global climate change through its products. Through investigating of three broad topics, a better understanding of HCM's response to a globalizing marketplace was developed.

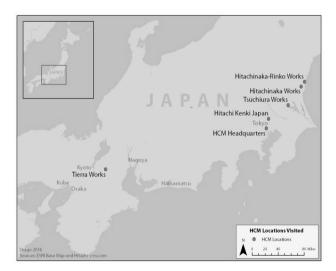


Figure 1: The six locations in Japan where interviews were conducted.

# Methodology

After studying relevant literature, semi-structured interviews were conducted with HCM representatives in order to gain further insight on each team's research questions. The three research teams traveled throughout Japan to each of HCM's domestic branches to explore the grounds and conduct these interviews. For the Eco Product group, one main interview was conducted followed by several semi-structured interviews. The primary interview was conducted at Tsuchiura Works. The interviewee there was given questions ahead of time about HCM's Eco Product line and the company's environmental sustainability efforts, and the interviewee presented his responses during the site visit. These questions were prepared in a specific order, starting with broad questions first, followed by more complex questions. The research team continued to ask questions based off interviewee responses, and received valuable information to complete this project.

The interviews by the Human Resource and Kenkijin Spirit teams were semi-structured, and select questions from the interview lists were chosen along with site-specific questions concerning the nature of the facility. This process gave the research teams an opportunity to interact and collaborate with Japanese representatives from Hitachi, in order to better understand first-hand the dynamics of the corporation and its culture.

# **Research Projects**

# The Effectiveness of HCM's Language and Cultural Training and the "Kenkijin Spirit"

With the rise of globalization, communication has become the key to success in the international market. HCM has emplaced a new language program, cultural training, and a system of unification called the "Kenkijin spirit" to enhance its competitiveness in the global market. The Kenkijin spirit is used to emphasize the underlying beliefs and goals of HCM. It is the unifying program that can be found in all of its factories around the world. The Kenkijin spirit is often represented by the color orange (the company's trademark color) and its manual highlights a specific philosophy aimed at branch cohesion (HCM Staff 2015). As for the language training, it was determined that in addition to English, Chinese was a valuable language for the company since China has a large potential construction and mining machinery market (HCM Staff 2015). The goal of this research was to evaluate the success of HCM's new language and cultural training programs, as well as the Kenkijin spirit development through gaining better understanding of the implementation of these programs through semi-structured interviews.

# Background

HCM emplaced the Kenkijin spirit in 2008, which was intended to unify its employees. Specifically, the company hopes to address the "demands of society in areas such as compliance and corporate social responsibility" ("HCM Group Spirit Handbook 2008", 1). The principle goal of the Kenkijin spirit is to turn this vision of unification into a reality by focusing on its medium term management plan, business strategy, brand strategy, and its budgets and execution plans. However, the "driving force" of the Kenkijin spirit is each individual employee, which gains momentum by spreading consistent values and principles. These values can be understood by the following phrase, which is recited daily by many of HCM's employees, "As Kenkijin, we take up challenges without fear of failure to become better solutions professionals, think about what customers want, and act with a belief in teamwork" ("HCM Group Kenkijin Spirit Handbook" 2008, 3).

HCM is not the only company to embrace programs to unify, globalize, and increase English proficiency to solidify the company's position in the global market. According to *Harvard Business Review*, creating a company that communicates well in English is crucial for succeeding in the global market. This is a strategy that many Japanese businesses have recently adopted to survive in the global market (Neeley 2012). HCM's two main competitors Caterpillar and Komatsu have implemented globalization plans, such as English language programs, sooner than HCM, which has considerably increased their competitiveness (HCM Staff 2015). HCM is aiming to challenge its competitors, and its own company through improving English fluency.

# Results

#### **HCM Headquarters**

The employees at HCM Headquarters were skilled in English. However, since the research group was only able to speak with selected members, it was not confirmed that this was consistent throughout the branch. The general manager of the Human Capital Division at HCM Headquarters, answered the majority of the preliminary questions. He assessed the new training practices, their place in HCM, and exuded excitement about the Kenkijin spirit. When explaining the Kenkijin spirit, he stressed the importance of its "three C's" which are "Customer," "Community," and "Challenge."The energy surrounding the Kenkijin spirit was particularly high at this facility as seen by the numerous posters and the involvement of staff in Kenkijin activities. It was found that much of the language training is still in a trial phase. The company is interested in partnering with more foreign employees for both language and culture training.

## **Tsuchiura Works**

At Tsuchiura, the employees displayed their English and public speaking skills, which demonstrated the effectiveness of the language training. Highlighting awareness of the globalizing industry, Tsuchiura employees presented their branch's accomplishments in HCM's international competitions, which recognize talents in welding and other skillsets. Cultural training was somewhat limited to the nationality of the English teacher. For example, if the teacher is American, they receive American cultural training. It was discovered that HCM utilizes an e-learning program. In this program, they have a variety of lessons accompanied by quizzes that are presented in an online format and are available in multiple languages. This system is flexible and teaches employees in different languages how to properly use equipment.

This facility also heavily emphasizes the Kenkijin spirit. An employee mentioned that he refers to his handbook to make decisions on issues that are both mundane and challenging. In the production lines, employees carry their handbooks, recite the Kenkijin spirit daily and many even have the entire handbook memorized. However, the engineers at Tsuchiura relayed that they review the Kenkijin spirit less frequently compared to workers in the production lines. The Kenkijin spirit's company unification qualities seemed apparent, and the employees were heavily involved in bonding activities like marathons and other work-related competitions. Cultural training was not heavily emphasized at Tsuchiura. An employee who was stationed in China for HCM said he received no cultural training prior to his relocation, and all training was accomplished at the China site.

#### Hitachinaka/Hitachinaka-Rinko Works

At Hitachinaka Works, English language training was heavily emphasized due to their dealings with overseas customers. These branches produce large mining machinery, which cater to an international market, particularly in countries where mining is a key industry; therefore, English is necessary in its sales department. Cultural training at Hitachinaka Works was not stressed at all. However, the Kenkijin spirit was important at Hitachinaka/ Rinko Works. The production line workers recite the Kenkijin spirit daily and have it memorized, while employees in management positions do not focus on it. However, all employees in the Hitachinaka Works and Rinko Works branches carry copies of the Kenkijin spirit booklet with them at all times.

#### Hitachi Kenki Japan

Here, many of the interviewed employees were not as proficient in English as employees in other branches. While this might seem like a hindrance to the branch, it had virtually no effect because Hitachi Kenki deals with domestic sales. The focus of this branch is to satisfying local customers. At a customer's request it even modified one of their excavators with pink paint and hearts to make it more visually appealing. This branch heavily emphasized the Kenkijin spirit, especially valuing the "Customer" component of the three C's. Kenkijin spirit posters were found on the walls in the office buildings, and the employees regularly participate in Kenkijin activities, such as welding competitions. Cultural training was not discussed since it did not apply to this branch.

# Hitachi Tierra Works

Tierra Works was by far the most unique facility due to its diverse workforce and progressive language training. Many employees are foreign workers from China and Brazil. This location has the greatest emphasis on employees learning English, and daily lessons are offered to them. Here, the employees have a need and opportunity to interact with their foreign coworkers, and English provides a common language to do so. On the other hand, the Kenkijin spirit was not as heavily emphasized. This is due to the branch's history: a different company had previously owned the facility for many years and was taken over by HCM in 1990. For this reason, the Kenkijin spirit is subtly emphasized so that the employees could slowly merge. While employees received no cultural training before interacting with their foreign co-workers, interviewees indicated that there were little to no hindrances as a result of cultural barriers.

# **Discussion and Conclusion**

# Language Training

Since language training was not implemented until 2008, it is still a recent development. However, it can be seen that this program is making advancements. The majority of the employees interviewed across the branches were proficient in English.

This was particularly true for branches that dealt with foreign affairs such as HCM headquarters and Tsuchiura Works. However, the interviewees do not represent the entire cohort, so it cannot be discerned that the recent implementation of language training is effective in general. Hitachi Kenki Japan, was an outlier, with its lack of focus on English training. From our observations, facilities such as Tierra with many foreign employees, had more incentive to use the language than facilities that did not, like Hitachi Kenki Japan. Furthermore, Chinese language training was not prevalent throughout the company. The majority of employees interviewed remembered little to none of the Chinese they were taught during the training period. This was consistent throughout all of the facilities visited.

#### **Cultural Training**

Cultural training is generally a Western concept and was difficult to fully analyze. From what was observed, the extent of cultural training for the employees was limited to the employee's English teacher. Furthermore, the employees interviewed that were stationed abroad received no cultural training prior to departure. All language and cultural training was received on site. Overall, this was the weakest part of the new training implementations.

#### Kenkijin Spirit

Spreading the Kenkijin spirit is the most successful aspect of the new training efforts. The majority of the facilities were prideful of this philosophy, and it was seen throughout the company. However, the levels of success varied depending on the facility, status of the employees, and the history of the branch. Factory workers stressed the Kenkijin spirit's importance. The workers are required to memorize major lines and often recited it in production lines. However, the engineers and management make less use of the philosophy on a daily basis. The company, as a whole, was enthusiastic about the Kenkijin spirit, excluding Tierra. However, the cohesiveness of Tierra did not seem affected. If anything, the unity and pride shown at Tierra was surprisingly high. The philosophy is also implemented in HCM's global branches, and is well-perceived among Asian countries; however, is not as accepted in European countries (HCM Staff 2015). For example, in Thailand, there is a specific day where employees wear orange to celebrate the Kenkijin spirit ("CSR report 2008 Aiming for and Appropriate Execution of Fair, Transparent Management" 2008, 26).

# Training methods and the Kenkijin spirit advancing HCM in the global market

HCM's financial success does not currently show a correlation to its newly implemented programs. While the goal of these programs is to secure its competitive position and sales throughout the world, current revenue does not reflect that. This can be seen by revenue variations around the world. For example, the revenue in 2015 for the first and second quarter increased

in the Americas, however, it decreased in Asian countries (Tanshin 2015, 5). As mentioned earlier, programs like the Kenkijin spirit are better received in Asian countries as opposed to Western countries. Therefore, there is no positive correlation between implementing the Kenkijin spirit and fiscal progress.

When comparing HCM to its competitor Caterpillar, English is a necessary component of success in the global market (HCM Staff 2015). Caterpillar is a U.S.company and all of its offices are required to speak English; therefore, all of its branches are at an advantage when it comes to language (HCM Staff 2015). If HCM can create a more fluent environment for English in the workplace, it is plausible that it will result in higher global sales. As Tsedal Neeley in the *Harvard Business Review* mentions, companies that do not communicate in a common language often misinterpret or miss vital information that is crucial for conducting business in the global market (Neeley 2012). Accomplishing this will require the employment of more English-speaking foreign workers and the need for domestic employees to use English daily in the workplace.

The Kenkijin spirit is HCM's opportunity to strengthen its reputation in the global market. HCM's 2016 Management Plan noted that HCM will use the Kenkijin spirit to become a stronger competitor by permeating throughout the company the philosophy that enhances its machinery and customer service. The Kenkijin spirit is a key factor to helping its foreign branches unify; the company can commit to this philosophy as it makes improvements in its products and service. This process will lead HCM to "overwhelming differentiation from competitors and comprehensive prioritization," making them more competitive and noticeable in the market ("Grow Together 2016" 2014, 7). If this philosophy is successful, the Kenkijin spirit can help unify HCM in the diverse global market.

Ultimately, HCM is hoping that its language training, cultural training, and Kenkijin spirit can provide it a competitive edge in the global market. As seen in the majority of the branches, the Kenkijin spirit was widely utilized. These programs will provide an opportunity for HCM to connect with its branches domestically as well as internationally. Since it is noted that these programs are newly instituted, the success can only be determined in the short-term. From what has been observed, these strategies have the potential to be effective; however, they need time to develop.

# HCM's Human Resources in the Midst of Globalization

# Introduction

When considering globalization's influence on company dynamics, it is important to investigate HCM's human resource management and how it has adapted to global integration trends in hiring and promotion decisions. In the past, HCM has practiced a traditional Japanese system of life-time employment and seniority-based salary and promotion. Recently, HCM has been forced to reconsider its promotion strategies in favor of hybrid meritbased promotion. Another company dynamic that globalization has influenced is the cultivation of a diverse workforce, which will improve HCM's global competitiveness. HCM, like other traditional companies in Japan, has a history of hiring Japanese native employees. In order to globalize effectively, HCM needs to focus on diversifying its workforce, and increasing its female and foreign worker populations. The goals of this research were to expand and contribute to the study of changing human resource management in a traditional Japanese company in response to globalization.

The question remains whether Hitachi Ltd.'s robust shift toward adapting Western ideas has affected HCM's human resource management in Japan. With that said, the following questions were investigated: 1) What do managers and other employees in different branches of HCM think about the traditional Japanese system of seniority-based salary and promotion opposed to Western merit-based systems?; 2) How has HCM diversified its employee base in regards to foreign and female workers?

#### Background

Japan has developed a distinctive employment system characterized by lifelong employment and a seniority-based wage system (Amin 2012, 1). The system worked well when Japanese companies could produce high quality products at a low cost in Japan. These products were exported and consumed worldwide. Until 1990, Japanese companies benefited from this growing domestic production market. However, the production cost in Japan became too high to keep the product prices competitive. Today, Japan cannot depend on its mature domestic market with its shrinking population. For Japanese manufacturing companies to remain competitive, it has become crucial to explore both manufacturing sites and markets overseas so that companies can produce quality products at low cost, and increase sales revenue in different markets (Guðjónsson 2009, 2).

Hitachi Group implemented the Smart Transformation Project in 2011. Its primary objective was to "transform group structure into a globally competitive enterprise" (Ishizuka 2014, 3). Hitachi is now proactive in changing its organizational structure to become a stronger global company. A recent example of this transformation is a move from the traditional seniority and lifelong employment system to a merit-based salary system, announced in September 2014. The announcement has drawn attention in the business community, some critics even calling it "epoch-making." CNBC announced the news as follows:

"Seniority and lifelong employment are synonymous with Japan's employment system, but Hitachi could change that. The consumer electronics giant may implement a merit-based salary system for managers next April, according to local broadcaster NHK, which economists say could trigger long-awaited structural changes in Japan's labor market" (Chandran 2014, 1).

This change will allow Hitachi to recruit and promote talent more dynamically and with more flexibility, both from Japan and overseas.

HCM has been actively responding to globalization. *The Hitachi Review* article, "Global Business Plan of Construction Machinery Solutions," emphasized the company's efforts in, "adopting diversity management and accelerating a shift to global management that combines business delegation to locally based management and governance of its operation" (Nakakuro, Arami, and Wang 2013, 94). As this move suggests, HCM recognizes the importance of accepting diverse management systems and different business models.

# Results

#### Overview

As previously mentioned, the two indicators of globalizing companies that were investigated included the transition from a senioritybased promotion system to a merit-based promotion system along with both cultural and gender diversity in the workplace. Semi-structured interviews were conducted at each HCM branch, and comparisons were made in order to better understand how human resource management has changed in response to globalization and how these changes have impacted HCM.

# **HCM Headquarters**

#### **Promotion Systems**

Based on interviews with the human resource managers, most employees at HCM have worked with the company for their entire professional careers. Lifetime employment has been Japanese practice until recently. Today, it is gradually becoming more common to see employees work for more than one company during their careers. The executives at Headquarters stated that employees are exposed through the Internet to various job opportunities with better compensation and salaries, making them more likely to pursue employment at other companies. Also, HCM is trying to combine both the merit-based and seniority-based system. Four years ago, the company reconsidered its structure with the hope to increase the company's effectiveness and efficiency. However, seniority still remains dominant because it is rooted in Japanese culture and it prevents quick promotion.

The job capacity grading structure at HCM is divided into seven stages, with the last three stages being managerial positions. It usually takes each employee about two to three years to advance to the next level in this scale, so it would take many years to be promoted to the seventh grade. It was also discovered that managers hesitate to promote employees if they are not the appropriate age for promotion. Salaries are based on each employee's role, responsibilities, and influence in the job, so instead of calling it a merit-based or seniority-based promotion, this hybrid system should be considered as the people-based or the Japanese-merit based system. Japanese-merit based systems refer to how Japanese businesses look at both experience and expertise to make hiring and promotion decisions (HCM Staff 2015).

# Diversity in the workplace

In discussions with the human resource division, it was discovered that although there is not high ethnic diversity in HCM's Japanese branches, the company does have global locations that allow for cross-cultural interactions between foreign workers and Japanese HCM employees. Rather than encouraging foreigners to work in Japan, HCM often sends Japanese natives to its global locations in order to train foreign employees as well as impress upon them the importance and differences of Japanese business practices. It was also mentioned that the reason for low ethnic/racial diversity in Japan is due to governmental restrictions, which limit the amount of time foreign workers can remain in the country. However in the past few years,

the Japanese government has lengthened from three to six years the time construction industry workers can work in the country after their training period (Sekiguchi 2014). The government's policy on female workers is the opposite. Rather than hindering companies from hiring female workers, the Japanese government has set goals so that 30-40 percent of employed staff at large companies are women (HCM Staff 2015).

# **Tsuchiura Works**

#### **Promotion Systems**

Most interviewed employees at Tsuchiura Works have only worked for HCM during their professional career. Again it was found that the promotion system and employment practices could be referred to as a Japanese merit-based system. Young employees believed that the merit-based system should be applied at the managerial level, but a seniority-based system is most effective early in one's career. Young employees also think that seniors should be recognized for their contributions to HCM. In fact, junior employees at Tsuchiura also preferred a seniority-based system and claimed that seniors had the ability to teach other employees due to their expertise. They desire more educational opportunities be provided by HCM for younger employees since this group requires management skills to proceed to a higher level (HCM Staff 2015).

#### Diversity in the workplace

Tsuchiura employs a large number of HCM's engineers who collaborate with design teams around the world. However, it was noted that the collaboration was not done on a daily basis. When Tsuchiura received a foreign engineering trainee on site, it was difficult to communicate. If both parties, foreign and native Japanese employees, did not have strong English skills, it made communication more difficult, because they did not share a common language. If this were the case, the foreign employee was given Japanese language instruction so both parties would have a common language to communicate in. As far as gender diversity is concerned, Tsuchiura has set a goal of increasing their female employees from two to three percent, where it currently stands, to ten percent within the next decade (HCM Staff 2015).

# Hitachinaka/Hitachinaka-Rinko Works

#### **Promotion Systems**

At these two sites, the merit-based promotion system is appreciated more than at the other branches. At Hitachinaka and Hitachinaka-Rinko Works, each manager can judge other employees on the expectations that are set by the branch. Employees are promoted based on skills, not on employment time period, because these branches believe that the best way to evaluate employees is through their skillsets. Like other branches, lifetime employment was found at these branches (HCM Staff 2015).

#### Diversity in the workplace

Hitachinaka and Hitachinaka-Rinko Works frequently hosted foreign employees on site through rotational trainee programs. These employees were not considered permanent. This system allowed native Japanese workers the opportunity to work and collaborate with foreign employees more often than other locations. Managers noted that Chinese women that often rotated through the facilities expressed a strong work ethic and often outperformed their Japanese male counterparts. Hitachinaka and Hitachinaka-Rinko Works confronted similar issues as the other branches in regards to a lack of women in the workforce. Even with the offer of fair maternity and paternity leave, few women work at this branch (HCM Staff 2015).

# Hitachi Kenki Japan

#### **Promotion Systems**

In October of 2009, Hitachi Kenki FineTech Co., Ltd. was merged into HCM. Hitachi-Kenki Japan was founded in 2012 with the combination of some smaller machine manufacturing companies. However, the employees did not feel like they worked for a different company once the merger was completed. The employees stated that the merge was seamless and the transition to HCM felt natural. The employees' motivation was enhanced by the managers showing them clear targets, giving more bonuses, and offering quicker promotion. Managers at Hitachi-Kenki Japan, take both merit and seniority-based systems into account when promoting their employees (HCM Staff 2015).

## Diversity in the workplace

At Hitachi-Kenki Japan, business is mainly comprised of providing service to existing domestic clients. HCM products are sent there if they are in need of repairs or to fulfill special requests by a customer. The managers working at this location spoke highly of the relationship between its foreign workers

and its native workers. While they received rotational trainees comparable to Hitachinaka and Hitachinaka-Rinko Works, Hitachi-Kenki Japan managers found that the working relationship between the native and non-native workers was cohesive. Foreign employees are hired for permanent positions when they show a firm grasp of the culture and language. Usually, non-native candidates for permanent employment are those who attended schooling in Japan (high school or college). Although Hitachi-Kenki Japan has incorporated foreign employees into their workforce, there is still work to be done to increase gender diversity. Only one female worked on site with the potential of another being assigned to Hitachi-Kenki Japan within the following month (HCM Staff 2015).

# Hitachi Tierra Works

#### **Promotion Systems**

Hitachi Tierra Works claimed that lifetime employment was important, since many of its employees have only worked for HCM. At Tierra Works, seniority-based systems still dominate, meaning that it will be a struggle for the company to change to a merit-based system. Managers at Tierra highly evaluate skilled workers, and they consider the years an employee has been at HCM to be their priority when making promotion decisions. Nevertheless, there have been many cases where people with talent got higher bonuses and were promoted quickly, showing a transition into the Japanese-merit based system (HCM Staff 2015).

## Diversity in the workplace

Hitachi Tierra Works was the most unique location regarding both gender and foreign workplace diversity. Roughly five to six percent of the location consisted of females (compared to the three percent or below at other locations), and fifteen to twenty percent of its workers consisted of permanent foreign employees. Two explanations were provided for the sizeable variance in Hitachi Tierra's employee base, the first being the location of the factory. Many other corporations also have factories located within a few miles of the Tierra factory, causing a large gap between the demand and supply of labor. With many employment opportunities, this region is a haven for immigrants. HCM Tierra is located amongst a popular community of immigrants, and many second generation Japanese live near the confines of Hitachi Tierra. Because of this, at Tierra there are many employees from diverse cultural backgrounds (HCM Staff 2015).

#### **Promotion Systems**

HCM is taking both merit-based employment and promotion into consideration, but does not expect a complete transition in the near future. A majority of branches followed similar employment and promotion practices. Both managerial and standard employees did not have a preference over a seniority-based promotion system or merit-based promotion systems and often supported a combination of the two. HCM Headquarters implied that unless employees had been with the company for a considerable number of years, it would be hard for those employees to advance to managerial positions, and some younger employees, specifically from Tsuchiura Works, consider seniority to be a significant component in promotion. This shows that there is still a strong tie to seniority-based promotion, which reflects the slow transition to a merit-based system. Japanese lifetime employment trends are changing due to the emergence of informational technologies increasing the ease of job searching. The possibility of Japanese employees working for several different companies in their lifetime is more plausible. Although there are more opportunities for Japanese workers to seek employment elsewhere, most of HCM's branches are composed of workers who have worked for HCM for their entire career.

#### Diversity in the workplace

In all of the branches visited, a majority of workers were native Japanese probably due to governmental restrictions on foreign workers. The most common way that Japanese employees interact with foreign employees is when engineer teams consult global locations or when Japanese employees are relocated to foreign branches. Tierra Works was the most diverse due to its unique regional history. HCM has obstacles in regards to ethnically and racially diversifying its workforce.

In regards to gender diversity, the nature of construction machinery seems to deter Japanese women from working for HCM. Generally, in traditional Japanese custom, women who work are expected to participate in less masculine fields. Because of these societal gender roles, the majority of employees who hold management positions are male. Although HCM is attempting to actively hire female employees, these Japanese gender roles deter females from working in the construction industry. Overall, gender and ethnic diversity varied among different facilities, and a majority of workers were Japanese men.

It is clear that HCM has made an effort to adjust its human resource management in order to comply with globalizing standards. Although the company still needs to reform the policy and structure of its human resource management, HCM is an important example of a Japanese company adapting

to globalization. They have made significant changes to best utilize its human resources and strive for the comprehensive growth and profitability of the company.

HCM's rational and bold movement from the dominant senioritybased hiring and promotion practices into the Japanese-merit based system has shown the company's efforts to develop global standards. The new structure that HCM implements will help to enhance the company's profile in the international market. The results show that the hiring and promotion practices at HCM are rather implicit depending on the managers at different branches. There was no written indication of when the managers should consider seniority-based or merit-based systems. Therefore, HCM might consider enforcing stronger standards when considering a candidate for promotion or hire. Managers at HCM should consider the question of how they can incorporate the Japanese-merit based system simultaneously in different divisions to create consistency.

Similar to HCM's advancements in hiring and promotion practices, the company's transition to a more diverse workforce has significantly changed as well. At this point in time, it is uncertain to predict the long term effects that prioritizing the hiring of females as well as foreign employees will have on HCM within Japan. With the changes only having been made in the past decade, there has not been enough time for any improvements to take hold company-wide. However, as seen throughout our visits to its various locations, HCM is beginning to effect change within its Japanese operations.

# The Influence of "Eco-Products" on HCM's Global Competitiveness

# Introduction

With the growing concern for climate change, there has been a widespread movement for green energy and green product development in corporations around the world due to social responsibility and global environmental regulations. Environmentally conscious energy and products are usually more expensive due to new technology, and for this reason, often have a lower consumer demand. A green energy breakthrough typically goes through a developmental phase as it begins to gain public interest, consumer support, and becomes subsidized for wide use (Schilling 2009, 1). With this in mind, switching over to green energy and green products does not always financially benefit the company, depending on the varying national and global demand for a potentially expensive product (Orsato 2006, 136). Conversely, it has been claimed by academics and practitioners that environment-related

investments can be sources of competitive advantages for a company because new markets can be opened as more customers are willing to pay the higher cost for green products (Orsato 2006, 128). The preceding information introduces the question of whether or not environmental development strategies (like the introduction of sustainable product lines) can help or harm a company's global competitiveness. The correlation between corporate environmental management strategies and corporate financial performance is not universal, highlighting a need to investigate where HCM falls on this spectrum (Albertini 2013, 432). Customer demand controls this system, as consumers increasingly express their values for environmental protection through their shopping behavior. The consumer may also suggests an unwillingness to pay for sustainable products if the price does not compete within the market (Orsato 2006, 136).

# Sustainable Products

HCM has introduced sustainable products known as "Eco Products" that cater to green energy use and sustainable practices. In 1990, HCM began to investigate environmentally sustainable products as the "green" trend was popularized. HCM began selling its Eco Product line in 2011, with a focus on its hybrid machines. The company claims that they strive to "prevent global warming," "recycle resources," and "preserve ecosystems" through the implementation of these products and practices ("Environmental Activities" n.d.). Its current Eco Product line includes electric construction machinery and hybrid technology, which is aimed at offsetting HCM's carbon footprint ("Environmental Activities" n.d.). Companies developing sustainable products are investing in this market with hopes that the "green" trend continues to grow, bringing up the question of how HCM's Eco Product line has enhanced its global competitiveness. This will be explored through the examination of HCM's motivations behind the Eco Product line, its environmental sustainability ideologies, and comparing these changes to the current sales of the products.

# Background

With HCM placing heavier emphasis on the Eco Product line, it is necessary to look at past research to understand if sustainable products are financially lucrative for corporations. Corporations are motivated to promote sustainable practices to better improve its competitiveness, meet the demands of environmental legislation, and/or social responsibility (Bansal and Roth 2000, 718). In an article by University of Western Ontario professor Pratima Bansal and University of South Carolina professor Kendall Roth, a respondent from a Japanese firm stated "[Japanese] firms are competing

more on environmental issues. Competitive advantage can be gained through environmental responsibility" (Bansal and Roth 2000, 724). Through increasing corporate environmental management strategies, companies show that they efficiently and 27 effectively use resources, decrease pollution, and express product stewardship and the integration of environmental product design (Albertini 2013, 432). By displaying these qualities, a company can increase its competitive advantage and excel in emerging green product market (Albertini 2013, 432). By becoming a frontrunner for sustainable business practices in the construction machinery market, HCM will also acquire better access to certain markets including Japan, Western Europe and North American nations that are more willing to pay for the additional cost of green products (Ambec and Lanoie 2008, 48). Environmental researcher Renato J. Orsato states "today, ecology-oriented products and services represent a defined market niche explored by firms worldwide" (Orsato 2006, 134). HCM recognizes this by focusing on Europe's demand for fuel efficiency and America's emissions regulations (HCM Staff 2015). The demand for green products lies solely with developed nations since those nations are ones that that have strict regulations and can afford Eco Products. For emerging markets like India, it is more affordable to pay for the less expensive, less environmentally friendly goods and services. In addition to Eco Products as a strategy for improving company environmental sustainability, HCM advertises a product recycling program in order to conserve resources. Domestically, HCM's product recycling program reduces production costs, and creates more revenue for the company (Ambec and Lanoie 2008, 58).

# Results

## Motivation

Interviews with Hitachi Staff uncovered the motivation behind these Eco Products is two-fold. The primary motivation behind Eco Products is the changing emissions regulations around the world. As the threat of climate change increases, there has been a greater desire to increase environmental standards in order to combat rising carbon dioxide concentrations in the atmosphere and particulate matter that causes air pollution. Since developed nations are beginning to require higher emission regulation standards, there has been a developing niche market for electric, as well as hybrid construction machinery in order to fit the needs of specific companies and countries (HCM Staff 2015). Interestingly, an Eco Product designed for use in Zambia will have different emissions ratings than the same product designed for use in Switzerland. These products are designed to cater specifically to the customer, so Eco Product emission standards are site specific according to the customer's geographic location. This is because of the variations in fuel quality around the world, meaning that the machine designed for use in Zambia may not be as "clean" as the machine used in Switzerland. Overall, global trends in emissions standards highly influence the development and sale of Eco Products (HCM Staff 2015).

As far as profitability goes, these products do not significantly influence HCM's revenue. Currently, sales of Eco Products take up less than 10% of HCM's total global sales, with most sales being made in countries with higher environmental regulations (HCM Staff 2015). Eco Products are being manufactured with the expectation that more countries will increase their fuel and emissions standards (HCM Staff 2015). Additionally, there are other global environmental standards that HCM complies with. Two highly implemented policies are ISO 14001 and ISO 9001, which are international certificates with a set criteria for minimizing environmental damage (HCM Staff 2015).

The second motivation for the Eco Product line is out of a desire to help provide environmentally friendly options to the market, in support of the prevention of climate change and the promotion of green energy. HCM Headquarters stated that it is an inherently Japanese ideal to conserve, ration, and take care of resources. As a small island nation with limited resources, Japan is conservative and mindful of its waste and environmental impact. This ideology is the other main motivation for its Eco Product line. The idea of creating environmentally friendly machinery not only stems from increasing global regulations, but also from the Japanese ideal of creating sustainable machinery that help conserve resources and for the sake of a brighter future (HCM Staff 2015).

This Japanese ideal was also present in many facilities. The manufacturing facilities have all introduced low wattage lighting decrease energy consumption, and many of the machines use recycled parts in order to conserve resources. Hitachi Naka Works installed solar power at its manufacturing facility, powering 20% of its headquarters building, with plans to expand on its solar energy production (HCM Staff 2015). At Hitachi Naka Works, there was an informational slide show in the lobby explaining the dangers of climate change, monitoring the energy production of the solar panels, as well as supplying other important information about green energy. Besides its development of Eco Products, HCM is researching algae based biofuel as well as machines that are compatible with this fuel. All HCM machines can use biofuel, but continued use has negative effects on the machine's inner components. As of the summer of 2015, approximately five hundred hours of research have been conducted on biofuel and machine compatibility (HCM Staff 2015).

Additionally, HCM plans to offset its machinery's carbon emissions by thirty percent by the year 2016 and reduce annual CO2 emissions by 100 million tons by 2025. All of this is part of HCM's Grow Together plan, the second stage in a company-wide movement started in 2010 (HCM Staff 2015).

# **Discussion and Conclusion**

Through examining HCM's motivations, it is clear that Eco Products have been developed for the future market. In particular, HCM hopes that when China, one of its largest markets, begins to set stricter fuel emission regulations, HCM will have an advantage on regulated machinery sales. But, today, this product line is not greatly improving HCM's profit margins, and it is not greatly enhancing its global competitiveness.

Many of HCM's competitors are focusing on environmental sustainability and environmental products as well, but HCM is hopeful they will not only have a competitive edge with one of its largest markets being China, but also through the use of technology from its "parent company," Hitachi Ltd (HCM Staff 2015). Caterpillar and Komatsu outsource their technological developments to other companies, where HCM can efficiently improve its technology through its parent company Hitachi Ltd.

The implementation of ISO protocol, biofuel investigations, and many other factors highlight HCM's interest in being an environmentally sustainable company. HCM has brought its interest in biofuels, low impact machinery, and other environmental efforts to the forefront of its marketing, which improves its environmental image, potentially appealing more to customers.

Overall, HCM hopes that its Eco Product line, its relationship with China, and its relationship with its parent company Hitachi Ltd. as an effective contributor to its technological development, will help it stay competitive in the future. Today, since these products have not had a large impact on sales, we can infer that the market for fuel efficient construction machinery is not developed enough to yield competition. As global emissions standards continue to rise, and climate change moves to the forefront of political decisions, the need for these products will increase, creating a competitive market for HCM's Eco Product line.

# Conclusion

It was clear that HCM has made considerable efforts to adapt to the competitive global market. Through implementing plans like "Go Together, Grow Together," HCM has begun a strong initiative, attempting to not only unify its domestic and global branches through the Kenkijin spirit and in the development of English language training, but also in instigating environmental change in a new product line. As noted earlier, McKinsey & Company suggests five steps that Japanese companies should undertake in an attempt to successfully operate in a globalized market. The McKinsey report recommended (Iwatani et al. 2011, 3):

- 1. Make the case for globalization to employees
- 2. Adopt English as the company language
- 3. Design a talent management strategy
- 4. Build a global marketing function
- **5.** Gain more from strategic corporate development by mergers, acquisitions, and strategic alliances

In some respects, HCM is making a case for globalization to employees through its Kenkijin spirit program with its message of a globally unified company (Point #1), the company is adopting English as the company language (Point #2), it is designing a talent-management strategy by moving towards a Japanese-merit based promotion system (Point #3), and is building a global marketing function through the development and promotion of its Eco Product line (Point #4).

One overarching theme discovered in all three projects, was that the recent implementation of all of these programs has not yet yielded significant financial results. Through an investigation of HCM's changing promotion systems, its attempt to diversify its domestic workplaces, its enhanced language and cultural training, the introduction of the Kenkijin spirit program, and the development of its Eco Products, it is too soon to tell the effectiveness of them. It is clear that efforts are being made to integrate the company into the global market, yet the results of these efforts have not been fully fulfilled. Initiatives to integrate the Kenkijin spirit, increased diversity in the workplace, and changing promotion strategies have all taken place within the past decade, making it difficult to fully analyze the success of these programs and its long-term effectiveness. In the case of Eco Products, which were introduced in the 1990s, the slowly developing niche market for environmental machinery has reduced the success of the product in today's market. As that market inevitably develops, the success and competitiveness of

HCM's Eco Products can be better understood. Overall, the recent implementation of these changes makes it difficult to gage its success today, but as these programs develop, they are likely to increase HCM's success in the global market.

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