

Japanese industrial revolution and the toyota industries corp history essay

[History](#), [Revolution](#)



It all begin in 1937 when Sakichi Toyoda became the father of the Japanese Industrial Revolution after he founded Toyota Industries Corp. Who knew that with the partnership with his son Toyota would become the second in line as being one of the most successful and largest car business companies around the world. The purpose of this paper is to answer the question of how did Toyota became more successful over other countries around the world and to determine what other businesses can learn from Toyotas success. We plan to examine the culture of Japan, and the positive and negative effects technology has on the government, the economy, and the educational and religious system.

A brief description of the culture of the selected country, e. g. its government, economy, educational and religious systems, and its status as a high-tech or low-tech nation (2 pages)

History of Japan

By Micheal Gonzales

The history of Japan begins with their Asian decedents who are believed to have traveled to Japan through Korea. Japan rests in the Pacific Ocean and is separated by the Sea of Japan from the east coast of Asia.

In 1542 a Portuguese ship made the first contact with Japan. This was an accidental finding due to the fact that the ship was off course in the Japanese waters. Japan history is traditionally believed to have started in 400 A. D. when the Yamato clan gained control of other family groups in central and western Japan. At this time, Buddhism was introduced to Japan by Korea. In

the 700's A. D. Japan was influenced by China and set up an imperial court and government similar to theirs. Samurai and shotguns were also a distinct class known. (Japan, 2008)

Japanese Emperor Meiji transformed Japan from an agricultural country to a modern industrial country after a civil war in 1868. In 1870's the Japanese business flourished. Many shipyards, mills, and railways manufacturing businesses were created. The first Japanese newspaper was published in 1871 (Lambert, 2010).

In 1872 Education started in Japan and the western calendar was adopted following year. (Lambert, 2010)

In 1878 military dramatically changed by modeling the techniques of the German armies and Britain navy. Japan captured Korea in 1910.

In 1941 Japan perceived the United States as a threat so they cutoff oil supply to them and attacked the Pearl Harbor. Japan refused to give in to Truman and Churchill with ' prompt and utter destruction', but When the United States dropped an atomic bomb into Hiroshima and Nagasaki, Japan surrendered to their allies.

The Liberal Democratic Party took power in 1955 and it ruled Japan from from 1955 to 2009.

Japan's Profile

Tokyo is the capital city of Japan: approximated size is 145, 882 Sq. Mi.

Japan has four main islands; Honshu, Hokkaido, Kyushu, and Shikoku.

Japan's official language is Japanese which has similarities to the Turkish and Mongolian languages. Some Japanese citizens are also fluent in Korean and Japanese Sign Language as well as other languages. English, Chinese and the Philippine are just a few languages that immigrated into Japan over time.

Government

Japan is governed by a Constitutional Monarchy (or head of state); Japanese General, Prince Komatsu Akihito is the 125th Emperor of Japan and he currently shares political power over the Japan with the Prime Minister Naoto Kan.

Economy

Japan is third in line after the United States as having the largest economic system. Japan has a capitalistic (free market system) economic system.

“ The foundation of an economic system states (all):

Citizens have the right to own private property

Citizens have the right to own their own business and to keep the profit

Citizens have the right to the Freedom of competition

Citizens have the right to the freedom of choice (pg 35 cite).”

Japan’s currency is the Yen. The exchange rate for eighty-three yen is equal to one United States dollar.

Japanese economy boomed during the 1950s and 1960s . Japanese industry exported huge numbers of electronic goods and vehicles. The Japanese people saw a great improvement in their standard of living.

Japan continued a rapid economic growth in the 1970s and 1980s while the rest of the world was in a recession. In the 1990s the period of rapid economic growth ended and a long recession began, although Japan remained a rich country. (Lambert, 2010)

In 2000 Japan became the largest car producing nation in the world but lost its position to China in 2009. (Automotive industry in Japan, 2010) Japanese automotive manufacturers include Toyota, Honda, Nissan, Suzuki, Mazda, Mitsubishi, Subaru, Isuzu, Kawasaki, Yamaha, and the Mitsuoka (<http://www.malaysiaminilover.com/japanese-car-market>). In January 1896 First motor

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vehicle appeared in Japan was an imported motorcycle from plagiarized Germany. In February 1898 first automobile began to run in Japan French Panhard et Levassor from a French Trader. The first automobile made in Japan was a 1904 Yamaba's omnibus, steam engine, and 1905 Yoshida's omnibus, gas engine. (Iwatate, 1995). During the 1960s, Japanese automakers launched new kei cars in their domestic market to keep taxes much lower. Rapidly increasing demand, Japanese automobile manufacture expanded around the world.

2. A brief history of the technology's development (2 pages)

The History of Automotive Development in Japan

By: Bruce Hudson

Japan is one of the world's leaders in development of automobiles. One of the first automobiles made in Japan was by a man named Komanosuke Uchiyama in 1902. He used a gasoline engine that had been bought by the United States. Japanese automakers have been established as a world class operation. Their innovations in manufacturing systems, management systems and materials are at levels that would not be matched by other nations until the mid 1990s. One of Japan biggest focus was safety. Car safety became an issue almost immediately after the invention of the automobile. Japan continues to make tremendous inroads in the world as the manufacture of automobiles.

Just as Henry Ford mass produce cars to lower the price by interchangeable parts, work flow, division of labor, and reducing wasted effort, these principles are also at work in the way Japanese are mass producing cars

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today. It seems as though the Japanese can produce products and make them look and work better. Companies in the United States are unable or unwilling to do the same, which is one of the main reasons why car companies in the United States are failing.

Companies in the United States could learn a great deal from Japanese automakers. If the car companies in the United States could have adopted the ways of the Japanese work ethics 30 or 40 years earlier, maybe those companies would be in a better situation than they are today. In addition, had they implemented some of Japan's ideals, maybe car companies would not be enduring the financial crisis that they are in now.

As an example, General Motors was one of the largest car companies in the United States, and now the government owns more than half of the company. General Motors once reigned as the world's top producer in the auto industry for 70 years, yet now has gone through bankruptcy, restructuring and new management. Who would have expected such a dramatic change? However, 30 years ago, nobody could have guessed that this would be a global industry and would be significantly linked with the fate of our new civilization at the beginning of the twenty-first century.

The Japanese takes pride in making the best product possible, which is one reason why the people of Japan is one of the world's best in the development of automobiles. Who would have thought that Henry Ford invention would be out produced and better made by the Japanese car companies?

3. The specific impact (both positive and negative) that the technology has had upon the culture of the country, e. g. upon its government, economy, educational and religious systems (8-10 pages)

The Impact of the Technology on the Government, the Economy,

Educational and Religious System

By: Jennifer Hawthorne and Jamerson Holloway

Japan has one of the world's most dynamic economies. Second only to the US, Japan's GDP was a whopping \$5.068 trillion in 2009 (Google.com. (2010). Gross Domestic Product - Japan. Retrieved 12/3/10 from http://www.google.com/publicdata?ds=wb-wdi&met=ny_gdp_mktp_cd&idim=country:JPN&dl=en&hl=en&q=japan+gdp). Japan's economy is very dynamic in the sense that for two consecutive decades after World War II Japan's economic growth exploded with rates as high as 10%. Although from 1980's to 2000's Japan's economy hasn't performed quite as well. Japan's GDP grew steadily at only 0.8% annually. Japan has had to endure major retractions as high as 5%, in 2009, to its GDP in the periods between 2000 and the present. These retractions seem to be in line with the current economic situations facing many of the world's economies. We are currently under a global economic crisis however; Japan is poised to withstand this test on its country's economic resolve.

Post World War II Japan was less concerned with promoting its war machine. With global sanctions in place and limits on Japan's military numbers Japan looked to solidify its historic existence by improving its science and

technology industries. In the 1960's The Industrial Structure Council was formed by the government. The major objectives of this organization were to execute research and development projects. Japan wanted to be perceived by the world as a science and technology leader. Therefore, Japan's objective during the post war period was to recognize technological innovations and exploit these innovations thus increasing its competitiveness and generating economic growth.

Japan realized that it had to identify the weaknesses within its industry. If Japan was going to grow into the economic powerhouse it dreams of becoming it will have to own the patent rights of its technological discoveries. Because of its sponsorships of the engineer's technology research and development, many of these discoveries were owned by the Japanese government. Japan wanted to develop new technologies, not just in the private sector but sheared with government assistance. Japan was especially interested in high risk and high cost technologies. The Japanese government was very instrumental with the advancement of technology early on and lawmakers allocated billions of dollars in government funding in pursuit of many of Japan's technological endeavors. The Japanese realized that the pay offs for development of these long term investments would be exponential. Eventually the private sector took over the research and development supports of new technologies yet Japan still asserted itself as the chief benefactor. Japan has invested heavily in biotechnical research and was the world leader with its robotics technology.

The oil crisis of the 1980's caused Japan to look at the countries dependency on foreign oil. Japan realized that this dependency posed an enormous threat to its sovereignty as a nation. The Japanese government was very instrumental in providing the funding needed to pursue clean and alternative energy source technologies. The government provided its full support with its energy conservation efforts. To protect its sovereignty it had to employ a diversified energy plan and develop the technology which would provide itself with the protections for full self sufficiency. Japan was been supportive of these high cost long term research and development endeavors because they realized that many of the technological discoveries would have massive implications within society and the reward versus the risk would be extremely great for the patent holder.

During the 1970's Japanese technology dotted the technology landscape the world over. Japanese innovations were being utilized all over the globe. The Japanese were instrumental with leading research and development in aeronautics, mass production of durable goods, super express train motorization, and seismic and earthquake engineering. Japanese innovations in steel technology production nearly decimated the US steel industry. However Japan's automobile industry would prove to be the crown jewel of its technological superiority. The history of automobile manufacturing may have roots in the US but the Japanese took the technological aspects of automobile technology to the next level.

Japan is the 10th most populated country on the planet. Tokyo, with over 29 million residents, is the most densely populated area on Earth. The Japanese

have the highest life expectancy rate of any group or country on Earth. With a population of over 125 million and a labor force of over 65 million, findings support the fact that Japan has a 51% employee to population ratio and only a 5.6% unemployment rate. It is a Japanese tradition to expect more from less. The Japanese not only examined current technologies and how to improve them, but they also looked at their individual selves and studied ways on how to self improve. The Japanese society is living and working longer and that gives the Japanese a competitive edge. Japan wanted to have a society of people where self motivation, drive and dedication to the countries core beliefs were the morale for its technological competitive superiority.

Kaizen is a method or philosophy where continuous incremental improvements can be monitored and analyzed to discover where there may be needed improvement. The Japanese discovered that continuous improvements along with incremental adjustments over long periods of time resulted in measurable improvements in the production process. Teamwork, discipline, morale, quality and input are the five founding elements within this kaizen technology tool. Total quality management along with the Kaizen philosophy is the technology the Japanese instilled upon itself to expose inefficiencies and make adjustments to put itself at a more competitive position. Using this precise and formulated technique the Japanese made tremendous improvements on its production process technologies. Japan continues to be a world leader in its process production ratios.

Japan is a highly motivated society of people. The Japanese worker has a longer work week on average than the US worker. Their dedication and disciplines are evident at all levels of society. The Japanese consistently lead the world in education. This nation ranks among the highest in the world. Japanese students at the university level out perform their peers in mathematics and science. This desire or pursuit of achievement is embedded in the very culture of Japanese society. And the Japanese as a people reap the bounty of these efforts.

After their defeat at World War II the Japanese conditioned themselves to be a much more disciplined society. Japan's philosophy was it took no more than it needed, and would produce much more with less. This philosophy is what fueled the Japanese. It's the cornerstone of their societal beliefs. The Japanese are a very competitive society and this is evident with a research report by Yuko Harayama titled, "Japan Technology Policy: History and a New Perspective." (Harayama, Y. (2001). Research Institute of Economy, Trade and Industry. Japanese Technology Policy: History and a New Perspective. Retrieved 11/25/10 from <http://www.rieti.go.jp/jp/publications/dp/01e001.pdf>). Produced in 2001, this report shows the actual action plans to how the Japanese planned to propel itself atop the science and technology world.

This next report examines the will of the Japanese people, "JILPT Research Report No. 76, Japanese Automotive Industry's Labor-Management Relations and International Competitiveness - From Production, Production Technology and R & D Perspectives - Summary". (Akiko, O., Atsushi, S., Mitsuru, Y.,

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Mitsuo, I., Naoki, M., Yoshinori, T. (2005). Japanese Automotive Industry's Labor Management Relations and International Competitiveness — From Production, Production Technology and R & D Perspectives - Summary. JILPT Research Report No. 76. Retrieved 12/3/10 from. <http://www.jil.go.jp/english/reports/documents/jilpt-research/no76.pdf>). This latter study was conducted in 2003 and it shows the continued resolve of the Japanese people to continually examine ways to be more productive.

Japan has provided the world with great instruments of technology. This island nation has been instrumental in the development of technologies which have enhanced our global existence, challenged our minds and brightened our future. Japan has taken the lead in developing technologies which help us better to understand seismic activities, improved aerodynamics and environmental protection. Japan's contribution to the world economy explains why it's the second largest economy behind the US.

Two of Japan's most successful companies are Toyota and Honda. These two automobile companies have proven in the global marketplace that technology and innovation go hand in hand with consumer needs. The two automobile manufacturers collectively represent nearly 1/3 of the total global automobile market. That shows the will and determination of a people and a country with a long tradition of innovating technologies.

The Japanese can be proud of their many technological achievements.

Toyota is truly a star performer for the Japanese. It is one of the best selling automobile brands in history. Toyota's reputation for durability and product

longevity also leads the way with innovative automotive technology. For the past five years its popular Prius model has had the highest mpg rating by the EPA. The car company is doing its part to protect the environment by introducing and mass manufacturing the first plug-in hybrid vehicles. Toyota has been testing the durability of these hybrid electric vehicles in real world markets for several years and was the first automobile manufacturer to bring this product to the market. As global sentiment reflects changes in our consumption habits, Toyota is proving that you can do so much more with less. Its hybrid electric technology will define the next generation and help us reduce our carbon footprint. Toyota is convinced that the way of the automotive future is their plug-in hybrid technology.

Japan Religion

Amazingly enough religion does not play a great role in the life of the Japanese. Everyone has the choice of what religious views they want. Japanese have a very broad range of religions such as; Shinto, Buddhism, Confucian, Taoist, and even Christianity. Japan religion has a history that goes back over two thousand years.

Shinto was most popular in the prehistoric times and centered around sacred powers. At the beginning of the Kamakura period, the most typical Japanese forms of Buddhism began. This occurred because Japanes court society was disrupted and people longed for assurance in faith and protection in a time of confusion and the state of being degenerate in mental or moral qualities.

Christianity entered into Japanese religion by Francis Xavier from 1506-1552. Within a hundred years Christianity rapidly became accepted by most and then destroyed. Christians were forced underground to continue their faith. With the threat joined with Christianity, all foreign influences were closed to Japan and Buddhism became formalized.

The Association of Shinto Shrines (independent of the government) came from Japan's defeat in the Second World War. This once again allowed new religions and practices to develop.

Most of the spiritual heritage of Japan has been lost between the changing of modern life. Today, there is full religious freedom in Japan, allowing any religion or belief to be practiced.

Japan Education

In Japan, almost all students progress, voluntarily, to the upper secondary level at the elementary and lower secondary levels. Private education is most popular in the upper secondary and university levels. Following the end of World War II, Japan's education system plays a huge role in Japan's recovery and rapid economic growth.

German and French models were used to design the Japanese education system because experts found them to be most suitable and most beneficial to the students. After World War II, in 1947, the Fundamental Law of Education (also known as "The Education Constitution") and the School Education Law were enacted. The Law mandates six years of elementary

school, three years of junior high, three years of high school, and two to four years of college.

In Japan, the school year starts in April and has three terms. They are allotted short holidays in spring and winter and one month summer break. Entrance exams are required for most high schools and universities as well as some private junior high and elementary schools. Before a student can even take an entrance exam, they must attend special preparation schools outside of their regular classes.

According to the Japanese Educational Reform they focus on three major points: Emphasis on Individuality (focuses on themselves and helps them become more creative), Emphasis on Life Long Learning (helps them learn at a higher level of thinking), and Emphasis on preparing students with information that will help them cope with change and succeed in society (helps them acquire and apply skills that they learn).

With the education levels rising, companies now expect more from their employees. This also allows for higher incomes than before, which in turn allows for a better lifestyle. By having a higher income, the standard of living rises. To reverse roles, because of the rising education levels, employers are expected to provide a lot more. Stable employment, and opportunities for training are of most importance to an employee. For an employee that has no education, they are apt not to say too much about it, but for an educated person, expectations are higher.

In reference to education, even the automobile industry is interesting in making sure everyone has one. The Japan Automobile Manufacturer Association (JAMA) sponsor advance level language programs around the world.

Forbes named Sakichi Toyoda the 13th most influential businessman of all times (Forbes, 2005). What can other business learn from the success of Toyota.....

4. And the moral and ethical issues brought about by the technology and how the country has dealt with these issues (4-5 pages).

Moral and Ethical Issues

By: Felicia Funches

This paper will focus on the moral and ethical plans and actions in which Toyota has taken to ensure the viability of their Tsutsumi Prius Hybrid automobile plant and its environment in Japan. The specific focus will be the energy used in the plant, the plants manufacturing processes, and the natural environment around the plants. Upon completion of the plants focus to maintain viability we will then look at the plan of action to make as small a footprint on the earth as Toyota can by recycling. Toyota's recycling plans will include the development, production, use, and disposal of the automobile and all of its parts. Upon completion of this paper you will be able to see the broad strokes that Toyota has taken to morally and ethical assist in the environmental fight against global warming, reducing pollution, and waste throughout Japan and the world.

Toyota has taken groundbreaking technology and pushed the envelope time and time again. Using the proven kaizen initiatives Toyota has developed the Prius Hybrid automobile plant in Tsutsumi Japan that has defied the way the things are done in buildings and manufacturing processes. The plant was developed to harmoniously exist well into the future with the environment which surrounds it by giving back and not just taking. We first look at the energy used in the plant and it's affect on the environment.

The plant is situated on as much green landscape as possible and powered by solar panels that sit within the environment and attached to the production buildings. The solar power generated reduces oil consumption by 2, 500 two-liter drums per year to provide 2. 000kw of power. <http://www.toyota.co.jp/en/tech/hybrid/plant/index.html> The outside of the plant is also covered by a paint that uses sunlight to create a chemical reaction which cleans the air at a rate of two thousand poplar trees for every area measured at 2, 2000m².

The plants manufacturing process is equally situated to be proficient in every aspect of production. The plant used mechanical tools that function like robots to lessen mistakes. It also has incorporated rakuraku seats for employees who work in and outside of the cab of the vehicle. This seat allows them to move freely inside and outside of the vehicle reducing strain and the possibility of injuries do to repeated movements throughout the day. All tools are also kept in the exact same location to ensure ease of use by all employees. There are also recycling centers located at each production line

to ensure no waste is left on the floors are the stations. With this streamlined process Toyota has been able to produce a Prius Hybrid every minute.

The plants natural environment is also a major concern for Toyota who has set out to ensure the sustainability of their plant long into the future while by reducing their footprint. The plant is situated in way that it has as less impact on the environment as possible while also allowing the environment to gain from its previous processes. The grounds around the plant have trees and plants that are indigenous to the region planted strategically for the purpose of cleaning the air by absorbing nitro-oxides. The trees have been planted to be a forest around the plant. The plant life and vegetation are grown to cover the walls of the plant so that it also blends in with the environment. The trees used are the Evergreen Broadleaf, Camphor, Japanese Cleylera, and the Japanese Blue Oak. The plant is also situated near a river and uses 5, 000 tons of water a day. This water is processed and released back into the river five times cleaner than the river water. This is helping to clean the river of pollutants and helping to ensure viability of fish and wildlife that drink from these rivers.

In looking at the complete process from beginning to end, we see that Toyota is one of the major front runners in the race to improve our environment by creating new ways of sustainability with both it and technology harmoniously working together.