

Toyota has adopted total quality management marketing essay

[Business](#), [Marketing](#)



" Toyota Motors" Contents

Introduction:

Toyota is one of the world's largest automobile manufacturers, selling all over five continents. Toyota's philosophy is very customer-centric, which is based on the Japanese set of values and principles. Toyota was incepted in the 19th century, when Saki chi Toyoda invented first power loom, and later founded the Toyoda spinning and weaving company. His son, Kicchiro Toyoda, built an automatic loom. This young man developed quite an interest in nascent automotive industry of Europe and US. He sold off the patents of automatic looms and laid the foundation of Toyota Motors Corporation in 1937.

Corporate Strategy:

The corporate strategy is focused upon these underlying principles: A unique management system
A range of in-house committees
A system to immediately recognize the problem and bring in to the consideration of concerned departments

Operational Strategy:

Its operational strategy is as follow: Toyota Production System
Re-engineering
Superior technology and quality
Hybrid vehicles
Employee Welfare
costs
Employee satisfaction

Operational Design:

The process map is as follows: C: UsersdellDesktopfig5-small. gif

Capacity Planning:

At Toyota, capacity planning is done on basis on demand. Their operations department not only calculates efficiency but also utilization as well.

Efficiency= Actual Output/ Effective Capacity
Utilization= Actual Output/

Design Capacity
Capacity planning in any company is part of a supply-chain management for that specific company. Toyota's way to capacity planning is that it strives to eliminate inventory. In achieving this objective Toyota relies heavily in pull system. Generally, the main objective is continuous improvement. Another operational excellence pioneered in Toyota and later adopted by other companies worldwide is a " Lean Concept". Lean philosophy aims to achieve are the elimination of all waste, superior customer care, and Lean is based on pull system where the elimination of waste seen as a primary objective. Just in time inventory management allows a company to gain a competitive edge by not having to have a large amount of inventory in their warehouses, but only to order parts when they are actually needed. According to just in time philosophy new material will be produced only when old stock of that material has finished. According to Liker:" The seven types of non-value adding waste in business and manufacturing are overproduction, waiting, unnecessary transport or conveyance, over-processing or incorrect processing, excess inventory, unnecessary movement, defects and unused employee creativity."

Resource Planning

The resource planning is done with the capacity planning. The tangible resources include material, machinery, parts, etc. whereas intangible resources include people, trademarks and patents.

Quality

Toyota has adopted Total Quality Management, Kabana. How does Kabana works? According to Kabana each part travels with a card. New stock will only be required when that part has been used; the card is removed, using signals to re-stock this part. Kabana is well integrated in Toyota's production system, because in Toyota there are limited numbers of parts with stable demand for them. Also, product mix is low and exchanges are infrequent.

The dimensions of Quality are performance, aesthetics, special features convenience, safety, reliability, durability, perceived quality and service after sale. Let's look at Toyota's Example: DimensionsToyota

(Automobile)PerformanceEverything works fit and finish. AestheticsInterior design, soft touchSpecial features convenienceGauge/ control placement, cellular phone, CD playerSafetyAntilock brakes, air bagReliabilityInfrequency of breakdownsDurabilityUseful life in miles. Resistance to rust and corrosionPerceived qualityTop-rated carService after saleHandling of complaints or requests of information

Supply Chain

Supply-chain management at Toyota is an element of company's operations strategy which is thoroughly based on the Toyota Production System (TPS). It was developed in the 1940's by Shigeo Shingo and Tahiti Ohio. As Toyota's

success gained world-wide coverage, it was followed by interest by other companies in TPS, the principles of which is expressed by the term of "lean manufacturing" Liker (2005, p. 16) lists following components of Toyota Supplier Partnering Hierarchy: mutual understanding and trust, interlocking structures, control systems, compatible capabilities, information sharing, joint improvement activities, and Kaizen and learning." JIT system - a system that organizes the resources information flows and decision rules that enable a firm to realize the benefits of JIT principles". (Krajewski, Ritzman & Malhotra p. 349) The elements of just-in-time system are being pro-active in exposing problems, pull production based in Kabana, Total Quality Management, elimination of waste, reducing inventory through involving suppliers in planning process, continuous improvement, improving machinery and focusing on co-operation.

Introduction

Toyota is a world leader in the research and development of advanced automobile technology. Intelligent solutions are created and future generation responsibilities are taken. This mission motivates Toyota. Toyota Motors Corporation abbreviated TMC is a Japanese multinational automaker headquartered in Toyota Aichi, Japan. Toyota employed 300,734 people worldwide. It is the 3rd largest automobile manufacturer after General Motors and Volkswagen. Now it is the 11th largest company in the world. It manufactured 200 millionth vehicles the company reported. The founder of the company was Kiichiro Toyota in 1937 and an extension to his father's company. The largest conglomerate in the world is Toyota Group.

Information Systems in Organization

In information technology Toyota global operations are moving forward. In United States, the company is top seller of industrial lift truck about 99 percent trucks are sold in the country and they are domestically manufactured in North America. Toyota chose a third party consulting firm to evaluate software systems and implemented sap software . each vehicle can track throughout its entire life through integrated vehicles warranty and financial information. Increase efficiency and better decision making results due to preconfigured software. Operating cost has been reduced is its biggest benefits. In SAP article online dealers are moving to internet based network the company saves\$ 1 million a year in network costs alone. The SAP platform has strengthened the relationship between customers and dealers. Toyota Company is a leader in emerging technologies. Toyota motor company can clearly be evaluated by using SWOT analysis. To integrate their company goals globally by using their systems effectively is their biggest strength in Toyota's information. Toyota reaches its customers in different markets by using different online systems for different world regions. The language barrier is the major weakness of Toyota's information system. The Japanese based company has language barrier with its international employees and customers. Language barriers on the international scene pose a significant hurdle to using information systems effectively. Toyota use English language mainly but their company is japan based so Japanese is their significant part of information sharing. Transportation system has created new opportunities in Toyota . it is working globally with partners and government to improve the ease of transportation. In Toyota research

transportation system they use information from their customers as well as from other companies. Toyota has success in transportation system. A threat to Toyota information systems includes resistance to information sharing between companies. Toyota needs to integrate information and share ideas with other companies such as Ford and Honda to advance their information system. In competitive market companies don't share information and research with their competitors. This poses a direct weakness to Toyota because the advancement of systems like their Transportation System initiative depends on the sharing of global information through the use of networks and information systems databases. Another great way to evaluate the information systems for Toyota Motor Company is to examine the Porter Five Forces Model for competitive advantages. In examining this model as it pertains to Toyota, it's important to examine (1) rivalry among existing competitors, (2) the threat of new entrants, (3) the threat of substitute products, (4) the bargaining power of buyers, and (5) the bargaining power of suppliers⁷. Toyota has strategically placed them into position to gain a competitive advantage by considering several of the Porter factors. In automotive markets Toyota Motor Company exists mainly, they have significant numbers of competitors. Their major competitors are Honda, Ford, GM, and Chevrolet. In industry exist cost leads Toyota to competitive advantage in their information system. New hybrid synergy drive is one of the major examples of an information systems competitive advantage for Toyota. As the automotive industry has suffered from high gasoline and crude oil costs, a computerized engine system is developed by Toyota that monitors engine performance and makes energy usage efficient in their Prius

and Camry sedan model this system has employed which leads the market in hybrid vehicles. Hybrid synergy drive has been evaluated by porter's model factors for threat of substitute products. By developing similar drive and neutralizing other companies can enter the hybrid market . for their sedan model Nissan and Honda have developed similar technologies . Toyota still dominates the market for hybrid vehicles because Honda and Nissan do not have impact on the market yet. Toyota can lose its competitive advantage if hybrid vehicles take a bigger market share in automotive industry. By using pricing key of components suppliers can exert influence. Toyota must have a strategy if large suppliers raise their price they use the strategy to stay competitive . Toyota uses a small supplier in order to gain a competitive advantage. Toyota has done an excellent job following porter's five forces model for gaining a competitive advantage. Revolutionary hybrid vehicles have cornered the market on hybrid and advantages that boost sales. Toyota protects themselves from price shifts. These factors have all led to Toyota successfully using their information systems to gain a competitive advantage. Toyota has a unique business model it approaches the model with its inherent quality controls revolutionized the industry. ' Just in time'' Toyota supply chain concept become a model for manufacturers around the world not for automakers. The end product is pulled through the system. The right part reaches the right place at right time just they are needed with no excess. Toyota has developed a flexibility and responsiveness that continues to set the standard for the industry. Because of its Attention to continuous improvement, Toyota has attained die-changeover and machine-set times that are a fraction of its competitors'.

Thus its capacity for reacting quickly to new market trends makes TPS an ideal system in today's rapidly changing global business environment. Toyota believes that it is important in ensuring quality control, and the delivery of reliable and dependable products to customers. If problem arise at any production Toyota's automatic error detection system called ' judoka' flags the defect and enable the line employees to stop the defect at the spot even if it means bringing production to halt. When error first occurs by calling attention to the equipment the Toyota system identify the problem and prevent the problem from progressing to other stages. Systems are agile but quality oriented measures make them economically possible. Customers can rest that Toyota motors will reach to the highest standard of quality, reliability and durability. Toyota is rising from the ashes of industrial upheaval in Japan and become the largest manufacturer in its home country and gained 40% national market. The company had steadily built both a reputation for customer service and satisfaction and sales figures to rival those of domestic automakers. The Toyota Production System, with its emphasis on continuous improvement, the value of employee commitment and superior quality, would be recognized as a true benchmark in the eyes of the global automotive industry.

Importance of information

Toyota is about the customers . business process does not drive technology at Toyota. Importance of informationSix reasons are important in information systemOperational excellenceNew products service and business modelsCustomers and supplier intimacyImproved decision

making Competitive advantage Survival Operational excellence: Business efficiency is improved by higher profitability. The important tools are information system for achieving higher levels of efficiency and productivity in business operations. New products service and business models: The major tool is information system in a firm is to create new products services and business models describes how a company produces delivers and sell a product or service to create wealth. Customers / supply intimacy: When a business serve well to its customers the customers pay back to the company by purchasing more and more in this way revenue and profit is raised. Businesses engage its suppliers. The suppliers can provide vital inputs. This will lower the cost Improved decision making: many managers operate in an information bank the right decision at right time to make an informed decision. This lower customers and raise the cost. Real time data must be use from market place to make decision. Competitive advantage: When firms achieve business objectives (operational excellence, new products, services and business models, customer /supply intimacy and improved decision making) they had achieve a competitive advantage. Doing better from your competitors, charging less for superior products and responding well to customers and suppliers all add to higher sale and higher profit. Toyota production system focuses on organizing work to eliminate waste, making continues improvements, and TPS is based on what customers have actually ordered. Day to day survival: Business firm always invest in information system and technology because they know how to do business. The industrial level changes with necessities. Information systems are the foundation for conducting business today. Without it, survival in any industry

is inconceivable it plays a critical role in increasing productivity. Information technology has become a commodity when complementary changes in organization and managements are coupled. The foundation for new products, services and ways of conducting business that provides firms with a strategic advantage.

Environment

The theory of sustainable development is practice by the TKM. The operations are standardized that cause least impact on the environment. It had laid greater stress on the landscaping activities to develop greenery around the bed light is added to the landscaping activities. They had taken a program in which they grow 300 plants at the boundary.

Environment and Technology

TOYOTA always manufactures environmental friendly products. There plant at bided surrounded by a green belt meets high environmental standards and has also obtained ISO 14001 certification.

The best way to serve the society is by providing the people with automobiles that make the people happy and also environment friendly. Waste water is collected and purified that fishes and pond can use. Toyota had balance between human resources and robot technology. Its production process improves.

Mission for Technologies

Statement to activities relating to the development of key technologies is as follows:

Statement

Create vehicles that are popular with consumers.

Activities

World-class safety is provided to protect the lives of customers. Optimization of energy/infrastructure is provided to local communities. Putting high priority on safety and promote product development with the ultimate goal of "completely eliminating traffic casualties". Deliver cars that will stimulate and even inspiring and that will thereby earn smiles for our customers.

Addressing employees' education under "Genchi-genbutsu" philosophy, which is to go to the source to find the facts to make correct decisions build consensus and achieve goals at our best speed. Contribute to development of new technology and improved expertise. Contribute for economic development of local communities with R&D operations functioning effectively in each region. Toyota takes measures in environmental issues surrounding vehicles. The global development of the industry and technology in the 20th century, increased production of vehicles and the growing population resulted in massive consumption of fossil fuels. We face three challenges regarding environmental and energy issues, which are an alternative energy source as opposed to oil, reducing CO2 emissions, and preventing air pollution. The demand for oil alternatives, such as gas fuels, electricity, and hydrogen may grow, each alternative energy source has its disadvantages. Oil is currently the main source of automotive fuel, further research and development of alternative energy in the future will bring change. Various power trains, such as those found in Plug in Hybrid vehicles,

electric vehicles and fuel cell vehicles, will be required in order to use diversified types of fuels. At Toyota, we will continue to develop vehicles, with our emphasis of conventional vehicles and hybrid vehicles as fundamental core technology while pursuing advancement. Based on these core technologies, Toyota will develop next-generation vehicles utilizing alternative fuels such as gas fuel, electricity and hydrogen.

Characteristics of Oil Alternative Fuels

They are good fossil fuel Electricity, hydrogen, biodiesel and natural gas, but each source has their own disadvantages. The left figure shows compares the energy density of each alternative fuel. Even with the latest lithium ion battery technology, only 1/50 of the energy required by gasoline is used. Powering a motor with electricity is much more efficient than an internal combustion engine; liquid fuels such as gasoline are still advantageous because of their high volume in energy density. The figure below shows the difference in energy density between electricity and gasoline but does not indicate correlation in cruising range. The cost of batteries also poses a major challenge. http://www.toyota-global.com/innovation/vision/images/oil_alternative_fuels_01.jpg

Toyota takes measures in environmental issues surrounding vehicles

For more improvements in efficiency, Toyota proactively manages powertrain efficiency, reduces vehicle load, and controls energy management by integration of fuel-saving technologies such as charge

control, idling stop etc.. http://www.toyota-global.com/innovation/vision/images/strategy_environmental_tech_01.jpg

In Pursuit of the Ultimate Eco-car

Toyota has a long history of continuous improvement when it comes to conventional engines, including lean-burn gasoline engines, direct injection gasoline engines and common rail direct-injection diesel engines, as well as engines modified to use alternative fuels, such as compressed natural gas (CNG) or electricity (for Electric Vehicle). Engineers may disagree about which fuel or car propulsion system is best, but they do agree that hybrid technology is the core for eco-car development. We develop these key technologies in-house to reduce costs and rapidly commercialize their application.

Information system:

We classify information system into different types and sizes and on the way in which task and responsibilities are divided into organization Toyota are using different sizes and information systems Personal : blackberry and other DPA devices are using Departmental: production, accounting, marketing , finance, human resources and R and D Organizational: enterprise resource planning , customer relationship management, business intelligence Inter-organizational: dealer ship terminals Current proprietary technologies at Toyota all support business http://1.bp.blogspot.com/-9BUUGWrR-cw/TwxIABnSPcl/AAAAAAAAABA/ySpVFDGDbeM/s320/248186134_ed0daab241.jpg Table shows different types of Toyota information system we will emphasize on following Ware house management

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system
Toyota production system
learning management system
warehouse management system: it is more likely a decision support system or executive information system due to the use of knowledge generated of it in the decision making process. with in a warehouse storage of materials and movement are controlled
associated transaction include shipping receiving put away and picking
direct and optimize stock put away based on real time information about bin utilization
Toyota when combines with the Toyota material handling company they provide customers with logistics solution at their worksite
Toyota production system (quality control system)
Toyota production system
Integrated socio technical department developed by Toyota
Organizes the automobile manufacturers interaction with customers and suppliers
Continuous improvement with objectives
Making the vehicles ordered by the customers is the quickest and most efficient way in order to deliver the vehicles as quick as possible
TPS was established based on two concepts
Automation with human touch : that means when a problem happens the machine stops immediately to prevent deficiencies
Just _in time only produce that is needed by the next process in a continuous flow
Principles of TPs
Continuous improvement
Respect for people
Long term philosophy
The right process will produce the right results
Add value to the organization by developing people and partners
Continuously solving root problems drives organizational learning

Viewpoint's learning system

Viewpoints provide comprehensive knowledge transfers solutions that allow global enterprise to rapidly deliver revenue generating product and service

knowledge throughout sales marketing and customer support channels. Viewpoints combined with award winning technology methodologies and services to help increase sales and market. Blue ship clients include AOL time warner, black and decker, the Hartford Toyota and whirlpool. It has won numerous awards top ranked service and solution rating from industry analysts and best financial stability from information provider. Viewpoint's comprehensive learning software allows Toyota to Rapid channel knowledge about services and entire value chain Increase revenue productivity and speed to market advantage Viewpoint is the fastest and easiest way to distribute and manage proprietary content In days of delivering saving VLS can be deployed The traditional way of training and disseminating knowledge which based on regular classroom training is not sufficient So Toyota use viewpoints they characterized ease and flexibility ease fits with multilingual multicultural marketplace Viewpoint learning system will provide them with 11 million euros saving on training costs 25 language , 30+ countries , 50, 000+ users accommodate a more robust system More streamlined administration Target and efficient training Ability to produce update and share content