

The basic principles of toyotas production system marketing essay



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Toyota Production System is a manufacturing methodology and also known as lean manufacturing or a just-in-time system developed by Toyota over 20 years (Vorne, 2010). The production control system has been established for continuous improvement which the objective of company is making profit, and satisfying the customer with the highest possible quality at the lowest cost in lead time (Toyota, 2010). It included developing cleverness group and providing training to improve skills of workforce. Toyota applies 7 basic principles to achieve their objective.

First principle apply by Toyota was reduced setup times. All setup practices are wasteful as they have no added valued furthermore using up more resources labor and equipment. Toyota Company organizing their procedures by using carts and provides training for their workers to do their own setups; they able to managed and reduce the times of setup from months to hours and sometimes even minutes. Dr. Shingo was able to reduce the setup time for a 1, 000-ton press from four hours to 1. 5 hours that help manufacturing and production department more efficiency and effectively for Toyota Company in 1962. (reliableplant, 2010).

Secondly, Toyota applies small-Lot Production. Toyota produced in large batch but only in small quantity. It is because large batches produced bring result in huge setup costs, extended lead time and larger defect costs. This lead to Toyota cannot get the economy costs and shorter time in their operation. As such, it becomes easily to produce a lot of product but only in small quantity. Produced in large batches leads to the bad phenomenon (Setpointusa, 2009).

Thirdly, employee involvement and empowerment principle adopted by Toyota. Toyota formed a team and trained them by giving them responsibility to do many specialized tasks and provide improvement suggestion to employees. Each of the team has a leader to ensure their department running smoothly and manufacturing department process efficiency. Example: Each year, there are more than 700, 000 improvement suggestions were submitted by Toyota's employees to human resources department and 10 improvement suggestions were implemented (Huggages, 2010).

Fourth, Toyota also makes sure quality at the source. Toyota controls every step of the production department to guarantees maximum product quality in it at all times to eliminate product defects. Machine or a human operator may causes imperfection of the product. It has stopped down the production into one assembly line if there is the problem occurred. However, this is also known as Jidoka. According to gas pedals that got stuck on floor mats, Toyota has recalled 3. 8 million vehicles in the U. S. last month over problems. The Toyota Company has noticed the owner that to remove driver's side floor mats and no replace them until the automaker had decided to settle the problem. Moreover, NHYSA said defect will exist on the vehicle if we proper secured it (4Nov2009). Due to the accounting and finance department, it leads to Toyota facing losses during this period and also examines the statistics that the vehicle recall amount during that year.

Next, Toyota operators apply equipment maintenance to defect signs of malfunctions. The professional maintenance explain and fix only complex

problem, train worker to improve the performance of equipment that helps in manufacturing more efficiency.

Besides that, Toyota developed the pull production which is based on customer demand to reduce inventory, costs and lead time to the production and the need for raw materials is comparable to the demand for the product. The Kamban system uses to control the flow of material between different work stations. This is where the term Just-in-Time originated. Example: Taiichi Ohno of Toyota produced their product to meet customer demands with minimum delay. (siliconfareast, 2004). Just-In-Time delivered services to customer are strength of Toyota which Sales and Marketing department trying to create customer awareness.

Lastly was supplier involvement. Toyota treats its supplier as their partners. Supplier's responsibility to delivered and trained in the way to reduced the setup times to customer, stock, defects and sometimes machine breakdowns problems. This can increase sales and marketing strategy to create customer awareness

Part b

How is TPS interconnected with the culture of Toyota? Are TPS and Toyota's culture interdependent? Could one exist without the other?

Toyota Production System worked in Toyota culture. It involved continuous improvement (qualitycoach, 2007) services in customer ordered, in order to fully satisfy customer requirements (Toyota, 2010). Besides that, Toyota way of 14 principles as a management principle work in Toyota culture

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philosophy that drives Toyota's quality and efficiency-obsessed of the culture. The 14 principle of Toyota ways system designed is a tools that more dependence on people to produce to improve their work continuously that helps their company works more efficiency and effectively. Moreover, the seven principles have interconnected and interdependence with the cultural of Toyota. Toyota can't exists each others, this is because TPS and 14 principles Toyota way work in the Toyota culture; continuous learning and improvement that drives the Toyota success in the world(qualitycoach, 2007).

Firstly, Toyota makes their management decision based on a long term philosophy although the expense to the short term is to ensure to achieve the mission of their company in the future. Toyota developed, work, grow and align the company towards a common goals and objectives set by director manager. Short term decision making and goals involved in long term philosophy. Toyota Company objective is to achieve the best in quality and services for their customer and satisfied their employees and stakeholders. There is the reason employees' involvement to guarantee the quality of their product. Besides that, the improvement of workforce skill (maintained equipment) is requires to produce high quality car that enable Toyota to produce add value and increase in retained profit from customer (scribd, 2003). Example: Toyota established the Toyota Creative Ideas and Suggestion System (TCISS) in 1951, which offered incentives to employees and improved their motivation by focusing on their skills and creativity (Toyota, 2010) that add value to the product or create a product.

Secondly, Toyota used “ pull” system to avoid overproduction. Pull production helps Toyota list down based on customer demand which included the types of product, ordering amount, budget of a product and duration to complete their order and delivered product to customer without delay as they promise. Just-In-Time is accomplished by the pull production. The pull system is a production system driven by actual consumption and controlled by synchronized replenishment signals. Besides that, Toyota reduce their setup times and warehousing of inventory by keeping small amount of inventory based on customer requirement. Furthermore, Toyota applies small-Lot Production. Toyota produced only in small quantity to minimise the quantity of closing inventory keep in their warehousing. When the quantities of closing inventories are less, it saves the money for the warehousing and manpower to keep the stocks which are wasteful (Scribd, 2003). Example: Toyota is crucial, they learning to operate a very lean, fast-acting company like Fran Johnson’s Golf and Tennis’s owner and Cindy Johnson. Toyota manages tightly control their inventory so there won’t have too much or too little of inventory in their company (Careerwise, n. d.). The speed in the production is excellent due to the market demand. Build a culture of stopping to fix problem, to get quality, right the first time.

The next principle of Toyota is build into culture philosophy of stopping to fix problem to get quality in the first time. It can enhance the productivity for Toyota in the long terms. In Toyota Corporation, they use all modern high-technologies machine to produce their product with high quality that drive customer value proposition. As we need to know the Toyota Brand positioning are Majestic, quality, commitment to improving society and

innovation in technology. In addition, Toyota had build up equipment have its own capability to turn off itself when detecting problem occurs. It involved concept of Jidoka (machines with human intelligence) in the manufacturing department to guarantee the quality of their product. Example: In Toyota manufacturing department, when their employees found problem occurs in operation A, then they need to shut down operation B immediately. When the equipment shuts down, usually it will accompany with music or alarm as a signal that required help to solve a quality problem in that period. This signalling system is referred to as andom as there are signal for helps. For in the case in human, employees have power and responsibility to push buttons stop the line every time when they see something that is out of standard (ineak, 2010).

Toyota applies both Toyota Production system and Toyota ways. They can't exist with each other because Principles of the Toyota way as a management philosophy that includes Toyota Production System. Toyota has accomplished its goals of work smarter, profitability (qualityoppapers, 2010) by add on innovation and creative on their product (continuous improvement), carefully integrated management system, improving day-to-day operation (Superfactory, 2009) by implementing the various components of the TPS and Toyota way. Example: In 2007, Toyota became the largest car manufacturer in the world as they have been long benefited from their continuous improvement and innovation of lean thinking. In addition, it helps Toyota assist the client or employees truer work-life balance with inward work involvement to linking their personal aspiration with their works. This also helps Toyota improve customer satisfaction or beneficiary orientation

and improve their profit by reducing the waste during the manufacturing and extra expenses (Impactconsultants, 2000) Toyota identify 7 waste they are concerned on it, they are over-production, waiting time for the next production step, transportation costs from moving products that are not required to perform the processing, over-processing, quantity closing inventories, motion costs and defects costs. At the same time, overall quality and lead time can reduce as well as cost can be reduced (businessknowledgesource, 2009). Example: Toyota implemented cost cutting program(save cost) names as dubbed CCC21, or known as Constructions of Cost Competitiveness for the 21st Century. This program recognised had been success. The plan helps Toyota save \$10 billion over its five-year parts' quality. CCC21 sourcing cheaper components but it can improve part of quality and increase retained profit for Toyota (businessweek, 2005).

Part c

Describe how information system supports each of the business processes describe in this case.

An enterprise application is a software product that was written for use by some type of business or organization. There are thousands of application are created, they fall into a few general categories to meet customer need. Toyota automobile industry has suite by 4 major enterprise application in their manufacturing process (Ehow, 2010). They are Enterprise resource planning (ERP), Supply chain management (SCM), customer relationship management (CRM) and knowledge management system (KMS).

In a rapidly changing environment, it is hard to maintain a custom designed of software package for organisation which to ensure all their requirements and data are completely up-to-date from the previous data. Organisation utilized Enterprise Resource planning software which offered an integrated software solution to all basic functions of an organisation (erpfans, n. d.). Enterprise Resource Planning is a business management system emphasis on planning for the business in future, which including manufacturing, sales and marketing, finance and accounting(budget) and human resources(hiring employees). Besides that, software applications helps business managers implement Enterprise Resource planning in many different business activities such as product planning, purchasing materials, recording data and bar coding to control the inventory and labor, order tracking customer service, interacting with supplier and customer exactas. Example: Siam Toyota Manufacturing (STM) needed an extended enterprise application solution could help the manufacturer streamline automotive parts planning and production within it's traditionally flow manufacturing environment. Inventory control systems in ERP Plus required several customizations in order to satisfy STM need which the solution's built-in inventory management concepts. ERP Plus is a suite of fully integrated e-business, business intelligence, CRM and ERP applications that helps STM better understand and respond to the needs of its customers, suppliers and partners around the world (verticent, 2009). It benefit the sales and marketing department in Siam Toyota manufacturing, they can gain more market share and market growth as they are more understand the demand and offered to customer what they need. Furthermore, SAP usage is enhancement packages and services upgrading to SAP ERP software. With <https://assignbuster.com/the-basic-principles-of-toyotas-production-system-marketing-essay/>

SAP, organisation can reduced costs and minimize disruptions from business operation. Example: Volkswagen Financial Service AG(VW FS) is a fully owned subsidiary of Volkswagen. VW FS needed SAP ERP 6. 0 that fully supported up-to-date data. VF FS working with IBM global Business Service completed a full combined Unicode conversion of its database together with the upgrade to SAP ERP 6. 0. It enable the company to extended new functional while avoiding extended maintenance cost. SAP ERP and IBM Power System provide a strategic solution for the future. IBM Power system servers deliver excellent performance and capacity on Demand enables flexible use of processor resources. It helps Volkswagen in finance and accounting department which cutting the maintenance cost and under the budget of expense of a project. Besides that, the up-to-date data helps Production and marketing manager makes faster decision making (mcgrag, 2009).

Supply chain refers to a process from raw material stage, supply, production to become finished goods then distribute to customer when they make an order. Toyota implemented effective Supply Chain Management, which it is one of the parts for an organisation to success. It involved speed to send the product availability to customer while still keeping in down cost that satisfied customer need and wants. From here, organisation require performance worker to ensure the efficiency deliver services for their customer. Human resource department responsible hire employees, applicant tracking, skills development and tracking, benefits administration and critical component employee well-being in any business, no matter big or small (entrepreneur, n. d.). In other hand,(oppositely), it is complexity if always satisfied customer

requirements and expectation, globalization and the pressured on cost and the availability and access to resources. This is because there are limited resources to fulfil unlimited wants of customer. While, Management and main objective for every organisation is expected improve their profitability, increase revenue growth gain more market share and market growth in the worldwide. In order to succeed, management must take in account for an organisation in sales and marketing department and production department. With a fully up-to-date management it helps all departments running their activity more smoothly. Example: Oracle supply chain management (SCM) is a best-in-class, complete, open integrated solution that power information-driven supply chains. Oracle fulfils demand with best-in-class demand management and real-time sales and operations planning, global transportation exactas. Oracle wins 3 awards which is “ Best Supply Chain Management System” Intelligent Enterprise Readers’ Choice Award, 2007,” the Supply Chain Software Award” Supply Chain Asia Logistics Awards, 2007 and “ Best Supply Chain Software Solution Provider” Supply Chain Excellence Awards organized by SCM Logistics World, 2006.

Thirdly, customer relationship management is a business strategy helps Toyota in marketing department aim at identifying, targeting, acquiring though understand customer needs (businessdictionary, 2010). Toyota builds relationship with customer by providing the most-suitable products and a very high level of customer service while aim at profitable (searchcrm, 2010). Example: Toyota involving its dealers corporate their business based on their idea and suggestion from customer. “ The customer always comes first” set in the mind of sales and marketing employees (scribd, n. d.). The

customer Relations Division is “ the division within the company in direct contact with customers’ needs. It includes human resources department handle customer complaints to improve customer’s satisfaction. The Customer Assistance Centre act as centre handled complaints from 200, 000 people this fiscal year. Toyota works with its dealers to handle customer complaints, and makes a sincere effort to gain customer trust and satisfaction, striving to maintain and increase the number of Toyota fans (Toyota, 2003).

Lastly, knowledge management systems are used by Toyota which involved gathers, organizes, shares, and analyzes its knowledge in term of documents, resources, human skill. KMS is a business strategies aimed at forming of knowledge culture in the organizational units that benefit the whole of the company (Ibs, 2010). KMS improve Toyota Corporation in their business processes. The main purposes of KMS is building professional growth among the employees by providing them course and training as it can help them learn and understand about their company and their running pattern and process. Besides that, KMS increase of production and innovation management system through Toyota Creative Ideas and Suggestion System (TCISS). Furthermore, KMS increase of intellectual capital management efficiency and increase of enterprise operation efficiency by decrease costs and improve quality of provided services for customer (searchdomino, 2010). From here, Human resource department responsible train the worker in order improve the performance in management in organisation units. Example: Toyota Motor Corporation applied specialist trainer from EK Kanoo to trained 40 employees in 2006. Each employee will

have extensive training program 2-6 month depending their certification level. Toyota believes the short term training for employees can meet and exceeding customer expectation.

As a conclusion, Toyota one of the best automaker certified by worldwide using Toyota Production System, Toyota Way and 4 major application to produces their product at a creative and innovation design with high quality and be the “ Right First Time” delivered to customer.