

Case Study of Toyota Supply Chain Management PDF, Logistics, and Operations

Management Essay; This essay aims to analyze several issues regarding the operations management, logistics, and supply chain of the Toyota Company. The origin of the company comes from the Japanese textile industry. Sakichi Toyoda invented the world's first automatic loom in 1918. When a problem arose, the machine automatically stopped to prevent damage to the entire facility.

Here is the article to explain, the Toyota Operations Management PDF, Logistics and Supply Chain Management, Case Study with Essay!

This principle of automatic shutdown of the system and to draw attention to the imminent problems suggestively called the Jidoka; they have remained one of the main factors of Toyota Production system to this day. Operations management deals with managing resources like people, information, materials, and technology. In addition, it is important to specify that Operations Management transforms inputs into outputs by creating value of goods and services.

Sakichi's son – Kiichiro has developed the AA model in 1936 and one year later the [Toyota Motor Company](#) was born. In the '90s, the process that includes not only the internal; but, also the external functions that contribute to the supply of a product to the final customer existed known as Toyota Supply Chain Management PDF download. "Toyota aims to connect cars, people, and communities and thereby create a smart mobility society that offers freedom of movement, safety, and excitement for all".

Managing Quality;

Quality has many meanings for everyone. When a certain product/service meets a customer's needs it can consider that it was a quality product or service. Organizations that use TQM have several advantages. For example, the customers are more satisfied, the products have higher net quality, the costs are lower, the financial performance is improved, and the quality and innovation are improved. Although Toyota was four consecutive years number one in the world carmaker as stated on [bbc.co.uk](#); "from 2009 has millions of recalled cars due to accelerator pedal, brake, seatbelt and exhaust problems".

According to [express.co.uk](#), over 2.4 million hybrid cars were recalled by Toyota all over the world of which nearly 55,000 were in the UK. Therefore, the cars are recalled because of the software; because it is possible, for the vehicles to enter a driving mode; that would affect the safety conditions, and the power of the engine will be lost, and it will stop. The recalls are from May 2010 to May 2014, Toyota Auris, from October 2008 to February 2014 was Toyota Prius and from October 2011 until November 2014 was recalled Toyota Prius Plus. [Toyota UK](#) told BBC that Brexit without an agreement could temporarily stop its production at the Burnaston plant in Derby.

Examples;

The Japanese producer is one of the largest car manufacturers in the UK. About 150,000 cars existed produced last year only in Burnaston, and 90% of them were for export to the European Union as stated on bbc.co.uk; The Founder of Toyota, Sakichi Toyoda established five main principles: to always be faithful to the duties in the workplace; thus contributing to the good of the company but also to the general good. Be always creative, striving to face the challenges that appear with the times. always be practical and avoid being superficial. Try as much as possible to build a pleasant workplace atmosphere and be friendly with everyone around you.

You must always respect people with different spiritual beliefs and not forget to show gratitude At Toyota; the infrastructure is fast becoming a key instrument in developing; their future with a big step by developing the Toyota Mirai. More than twenty years ago, Toyota introduced hybrid technology with the first such car- Prius. With the hybrid technology, another innovation came up called Toyota Mirai. Toyota's fuel cell electric car works on hydrogen gas made from renewable sources and emits only water, having a smaller impact on our planet; but at the same time, it stands made to leave a special impression for every trip. In the UK there are now just eleven gas stations with many more in perspective.

To reduce the impact on the environment, Toyota uses the 4 R's: Reduce – by using fewer resources will result in less pollution, Reuse – any surplus of materials including parts of an old vehicle, Recycle – materials for helping to make new cars and Recover – minimize the amount of waste. [Toyota](#) is a good example of global operations management.

Operations Management;

Toyota Motor Corporation's operations management (OM) has implemented ten factors for the operations to be more effective. These ten decisions involve different fields of activity and require certain strategic approaches. Design of Goods and Services. Toyota takes into consideration these operations of management with advanced technology and high quality. Some of the company's investments go to research and development. Because quality is a key factor in the company, Toyota developed a program called Toyota [Production System](#) (TPS). This exists used now by many other companies who want to apply [Quality Management](#) in their system. The Design of Process and Capacity is the next factor developed by Toyota. In this decision area,

Toyota uses lean production, which exists also incorporated into TPS. The company focuses on both waste minimization and efficiency of capacity utilization. The Location Strategy. The company has extended not just in the United Kingdom but also in China, the United States, Thailand including some countries from Africa and the Middle East. Design and strategy of the model. The design of the model in Toyota's production plants emphasizes the maximum efficiency of the workflow including the principles of lean manufacturing.

Supply Chain Management;

The company has created its own rules regarding operations management that focus on people respecting others. This call The Toyota Way which exists also integrated into the HR system. Apart from that, Toyota offers different pieces of training based on their Toyota Production System. Supply Chain Management, “Toyota uses lean manufacturing for supply chain management”. **Toyota Supply Chain Management PDF Essay**, In this strategic decision area of [operations management](#), the company uses automation systems for real-time adjustments in supply chain activity. In this way, Toyota minimizes the bullwhip effect in its supply chain. Inventory Management.

In addressing this strategic decision area of operations management, Toyota minimizes inventory levels through just-in-time inventory management. The aim is to minimize inventory size and its corresponding cost. This [inventory management](#) approach stands covered in the Toyota Production System. Scheduling. Toyota follows lean manufacturing principles in its scheduling. The company’s goal for this strategic decision area of operations management is to minimize operating costs. Maintenance. For decades, Toyota developed a network of strategically located facilities to support its global business.

Measures;

The company also has a global HR network that supports flexibility and business resilience. Thus, in this strategic decision area of operations management; Toyota uses its global business reach to ensure optimal and stable productivity. Toyota’s operations management uses productivity measures or criteria based on the area of business considered. For instance, some of these productivity measures are as follows:

- Number of product units per time (manufacturing plant productivity)
- Revenues per dealership (Toyota dealership productivity)
- Number of batch cycles per time (supply chain productivity)

Supply-chain management at Toyota is an element of the company’s operations strategy; which is thoroughly based on the Toyota Production System (TPS) Toyota Production System Toyota's production system has existed designed to meet the following criteria; Quality - to ensure high quality of the finished product, it must be present at every stage of the process; Cost - costs and wastes must exist kept to a minimum level in every aspect of the business; Delivery - the TPS process is based on the timely delivery of both products and processes TPS is a method that reduces the time between customer orders and vehicles delivery. To achieve this, the entire operation until delivery is done in a single continuous flow. The result is a much higher level of productivity, less time, money, and effort, and better quality.

Just in Time;

Although JIT existed discovered by Henry Ford, just to manage inventory in his company, in the early 20th century; the one who used JIT as a management strategy, was Taiichi Ohno in his company, Toyota Manufacturing Company. The elements of the just-in-time system are being proactive in exposing problems, pulling production based in Kanban; Total Quality Management,

elimination of waste, reducing inventory; involving suppliers in the planning process, continuous improvement, improving machinery, and focusing on co-operation.

Capacity planning in any company is part of supply-chain management for that specific company. Toyota's way of capacity planning is that it strives to eliminate inventory. In achieving this objective Toyota relies heavily on a pull system. Generally, the main objective is continuous improvement. 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 need. According to just in time philosophy new material will produce only; when the old stock of that material has finished.

With over 10 years of development experience, General Motors, in 2017, laid the foundation for vehicle-to-vehicle (V2V) communications, a program that could reach Toyota too in the coming period. The Japanese also announced that they intend to develop this V2V technology; as well as that of the vehicle for infrastructure (V2I) in the United States from 2021; with the idea of implementing it to all models by 2025. V2X is another technology that Toyota wants to implement.

More to know;

This is a combination of V2I and V2V based on communication with other traffic participants, like pedestrians or cyclists. Toyota intends to use as well DSRC (Dedicated Short-Range Communications) technology between cars and trucks with the help of wi-fi. In the U.S. the federal communications commission has set aside spectrum in the 5.9 GHz band for connected transportation. Through V2V communications, vehicles can share a range of information about current conditions that can expand the situational awareness of drivers.

For example, if the ABS or stability control of a vehicle detects slippery conditions; it can broadcast a message to alert drivers that are following on the same road so that they can slow down. A car approaching a blind intersection can broadcast its position to cars coming from other directions. As roadside equipment exists deployed, the messages can also receive by traffic management systems or those systems can provide vehicles with alerts about when signals are going to change. An area of the green tourism model that has lately advanced impressively, both in terms of take-up and knowledge of its sustainability features, is the sustainability of supply chains and procurement.

There has been considerable science lately that has existed applied to defining the life cycles of products; to measuring the energy and resources that go into manufacturing and transporting products; as well as the carbon and other GHGs that exist emitted at all stages in the life cycle of a product. The UK government's Office for Low Emission Vehicles (OLEV) announced the availability of £400 million in funding to assist measures designed to promote uptake of ultra-low emission vehicle technologies such as electric, plug-in hybrid, and hydrogen-fuelled vehicles.