

# Agile strategiesf



Every company's objective is to make profits. In order to achieve this fundamental goal, production has to be efficient. This will enable companies to incur minimum and manageable losses. For them to achieve this, seemingly, companies need to review their production strategies. Over years, agile production mechanisms have been proposed to be the most efficient.

According to Dimancescu (1997), Lean manufacturing refers to a method of producing more valuable products with fewer resources. He further asserts that there are two approaches to this concept. The first refers to a set of tools that assist in identifying and continuously removing wastes from a manufacturing process. Steady waste removal makes the quality of the end product better.

Meanwhile, the time used in producing goods as well as the cost is lowered. The second approach focuses on making work flow smooth and hence eliminating inconsistency throughout the system.

The process of lean manufacturing was initiated by Henry Ford, who also initiated the complete process of production (Warmack, Jones & Roos, 1990). In 1913, he put together interchangeable segments that had standard work and conveyance in motion. He referred to this as flow production.

He then put in to a line order fabrication steps in process sequence wherever it deemed possible. He used specific machinery and gauges to bring together the different vehicle parts to meet the needs of the customer.

Warmack et al. (1990) agrees that this was a major step especially because the American market had machines meant for general purpose and were

grouped according to the process. In addition, they were more tiresome and generated great volumes of waste before a product could finally reach the market.

However, James and Daniel (2003) affirm that Ford's work lacked variety. This was his major challenge. According to James and Daniel (2003), his Model T was not only limited to one color, but also to one stipulation. This meant that all his models were similar.

When the world demanded for different variations of automated machines in the market, other auto manufactures stepped in with different ideas. With time, the market was filled with more convenient designs that were larger and operated faster. With each step, the costs and wastes from the same were reduced.

In the early 1930's, Mondem (1988) explains that the Toyota company, not being satisfied with what the market was offering revisited the earlier principles applied by Ford and invented the Toyota Production System (TPS).

Basically, this system changed the focus of engineers in the manufacturing sector from specific machines and their use to product flow through the manufacturing process.

Toyota concluded that that by sizing the machines for the required volume, introducing machines that had the capacity to perform self monitoring for purposes of quality, putting the machines in sequence ass the process stipulates, initiating faster set ups so that each machine could create small amounts of various part numbers and having each step that is set up notifying the previous step of its current material requirements, would lead

to obtaining cheaper, wide variety, best quality and faster machines to meet the dynamic customer requirements.

In addition, it found out that management of past information is mandatory to achieve this as past records could be simpler and accurate (Fujimoto, 1999).

Today, the basics of lean manufacturing are taking root and spreading so fast. Every company in the near future will be pressurized to reduce wastes and increase production in order to realize profits and be able to compete favorably. Besides, the world now is changing to green production and companies do not have an option.

Leaders are also beginning to appreciate the importance of lean production, especially in these hard economic times. It is obvious that every leader would desire his company to be economically efficient by lowering costs and enhancing the quality of production.

The service industry is also coming on board with all the leaders realizing the importance of incorporating lean principles in its delivery. For example, in the education sector, parents are overwhelmingly going for learning institutions that give the best quality education.

Likewise, the health sector is adopting the same principles. Most companies prefer low cost labor (Fine, 1998). Elimination of wastes if adopted by such companies will be instrumental in assisting them avoid the impacts of solely depending on low cost labor. The answer for this lies in the fundamentals of lean production.

With an increase in the demand and delivery manufactured products, it will be mandatory to adopt lean principles in their supply. Besides, Kanigal (1997) argues that the assimilation of lean principles in people's lifestyles will enable them to be creative, conquer the obstacles and look forward to new and advanced production methods in all sectors. The future of lean manufacturing is hence promising as most companies are now adopting the trend.

Nakajima (1988) defines mass production as a way of producing standardized goods in large amounts and at a low cost per unit. Lean production contrasts to mass production in so many ways. Mass production focuses on specialized and expensive machines that produce goods in huge quantities.

Its employment of many people to keep the costly machines occupied justifies their high cost of the final products. Lean production on the other hand gives manufacturers a chance to produce fewer products with minimal defects and that address the requirements of the customer (James and Daniel, 2003).

For instance, in the production of cars, mass produced cars would be many and virtually identical while lean produced cars would be fewer and to the needs of the customer. They would not then be similar.

Products from lean production reach the market earlier than mass produced products. It is because the products are less than those produced through mass. As a result, lean produced products are sold off faster than the mass produced products.

This is not only because of the quantities produced, but also because lean produced goods are customized. Individual needs of customers differ and lean production pays special attention to this.

For example, a car produced through lean production would have every detail a customer really expects unlike to that from mass production where the specific needs of customers are not considered. In the case of catering, mass produced meals contain the same type of ingredients while lean produced varied depending on the needs of the customer.

With regard to leadership, Warmack et al (1990) argues that in mass production, the command strategy is commonly used while in lean production; leadership is mainly participative and consultative.

For a company to satisfy the demands of their customer, different specialists are employed and consultation and full participation is mandatory in order to get the views of every individual, which have equal chances of being necessary. With mass production, commanding is employed more often as skills are also limited. In addition, running a certain machine would involve just pressing certain buttons, and then the job rolls on.

External relations in lean production are long-term as opposed to mass production where the relations are largely based on the price of the product. It is because in the lean production, manufacturers follow up the needs of the customers and in the process, long term relations develop (Warmack et al, 1990).

For example, in the textile industry, lean production ensures that the customer chooses the design and in the case of any alteration, the

customer's views are taken in to consideration. Then, long term relations develop as the customer will be consulted on several occasions before the production process ends.

According to James and Daniel (2003), the organizational make up in mass production is usually hierarchical and highly encourages taking orders and discourages flow of vital information. Those in senior positions usually give orders and challenging them is not tolerated. Juniors are expected to obediently take orders.

This practice is prevalent in large mass manufacturing companies where supervisors have the duty to give orders and not to be challenged in any way. In the lean production, flat structures are employed hence the flow and information sharing is highly encouraged.

The views of all the stakeholders rather than shareholders are given equal consideration. Information sharing is key in designing perfect products and avoiding obstacles that the team might encounter as they progress.

Customer satisfaction in lean production is assured than in mass production because in the former, goods produced have lesser defects as their design is customized. In the latter, customer satisfaction is lower as their views are not considered during production (Warmack, et al, 1990). Any product designed to address the specific requirements of the customer will always be more satisfying than those produced to meet the needs of the market.

With regard to engineering, James and Daniel (2003) argue that mass production usually employs the genius models with minimal customer input

and respect for the goods provided. Machines are fixed and expected to perform accordingly.

Specialists are employed and more often, customers are perceived to be poorly informed about the product. Lean manufacturing on the other hand is team based with maximum input from the customer. All the complaints, praises and recommendations from customers are vital in lean manufactured products.

Manufacturing schedules in the mass production are specific, adhered to and very difficult to adjust. Orders from the authorities are strictly followed without fail. This is unlike in the lean manufacturing where schedules are very flexible and can be adjusted accordingly depending on the demands of customers.

For example, if a customer demands that the product ordered be ready within a specified period of time, this will be strictly followed and other orders would be put on hold (Warmack et al, 1990).

Quality assurance in mass production is done through sampling. At certain intervals during as production progresses, products are picked and assessed to determine if they conform to the expected standards. However, in lean production, quality is guaranteed from the source and the product being let out to the market usually has very few or no defects.

The products are usually thoroughly checked to ensure they meet the customer's demands (James and Daniel, 2003).