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Lean Manufacturing

Introduction

Lean manufacturing is a way to help eliminate waste in manufacturing. Using the just-in-time method, SMART Goals, and the Kanban System, lean manufacturing can be used successfully throughout the manufacturing process to remove the waste. Just-in-time and Kanban are systems to help company's manufacturing be more profitanle. SMART Goals help set successful goals to allow for you to succeed at eliminating waste within your manufacturing process.

Summary of the technique

Lean Manufacturing is the process to eliminate waste throughout manufacturing ("Top 25 Lean Tools."). Waste is generally when a process or activity during manufacturing does not add value for the customer ("Top 25 Lean Tools."). There are numerous ways to use this technique when manufacturing goods.

One example to help eliminate waste is using the just-in-time (JIT) method, which is when a part of manufacturing arrives from their suppliers right when they are needed (Williams, 393). Holding a small amount of inventory will avoid the costs of holding the inventory (Williams, 393). Statistics shows, "JIT inventory management has helped keep warehouses from over-flowing" (Byrd, 347). Making sure you have good communications with your suppliers is a way to help make the JIT method successful (Byrd, 347). Having shared information systems also allows for close coordination using JIT (Williams, 393). The just-in-time method reduces the

costs and space of storing inventory, and also helps improve cash flow ("Top 25 Lean Tools.").

SMART Goals is a way to set goals and make sure they are effective. SMART represents: Specific, Measurable, Attainable, Relevant, and Time-Specific (Williams, 91). These steps will help make effective goals for manufacturing ("Top 25 Lean Tools."). You want to make sure a goal is specific, you can measure your process of meeting that goal, the goal can be attained, it is a relevant goal, and it is time-specific and has a set time line for meeting the goal.

Kanban which is a pull system, helps regulate the flow of goods ("Top 25 Lean Tools."). Kanban cards are put on batches of parts, and then when workers begin to use that batch they take the card off and return them, so the missing parts can then be replaced quickly and efficiently (Williams, 393). This is a great form to eliminate waste from over production in inventory, and relying on signal cards also eliminates physical inventories ("Top 25 Lean Tools."). When applying Just-in-time method, SMART Goals, and Kanban to businesses, these can eliminate waste within the company.

Conclusion

In using SMART Goals to set your goals and also using the just-in-time or the Kanban system, they can help to eliminate waste in manufacturing. Just-in-time and Kanban are good ways to eliminate over-production, and reduce cost & space for inventory, and improve cash flow. All in all, lean manufacturing can be a key way to successfully operate and manage manufacturing.

Total Quality Management

Introduction

The philosophy of Total Quality Management is a way to produce service quality through managing and improving products. There are three principles that help guide a company to use Total Quality Management. Those being teamwork, continuous improvements, and focus of customer needs and satisfaction.

Summary of the technique

Total Quality Management is a philosophy to manage and improve products and service quality using three principles (Williams, 383). Those three principles being focus on customer satisfaction, continuous improvements, and teamwork (Williams, 383). All three of these are a important way to make sure operations run smoothly in a business.

Customer focus is a big deal within a company, making sure your business meets the customer's needs (Williams, 382). Exceeding customers' expectations is a very important thing in order to keep a business successful (Williams, 382). Exceeding expectations for your customers can lead to loyal customers. In using teamwork to make continuous improvement for a company, Total Quality Management can lead to customer satisfaction by producing products and services which customers want and desire ("MSG Management Study Guide.").

In order to focus on customer's satisfaction, we must first look into forming continuous improvements within a business. Making continuous improvements is a "commitment to increase products and service quality by constantly assessing and improving the processes and procedures used to create those products and services" (Williams, 383). Often times continuous improvement goes hand and hand with reduction in variation, which alters the form, condition, or appearance for the quality standard of the good or service (Williams, 383). Using quality

management tools helps employees to identify problems that are common within, these problems may occur repeatedly and these tools help find the causes ("MSG Management Study Guide."). Some of these tools are making a checklist, which can identify problems that are not delivering high customer expectations ("MSG Management Study Guide."). Other tools would include Pareto charts, cause and effect diagram, histograms, and graphs. All of these manage qualities within to allow for high quality goods ("MSG Management Study Guide.").

Teamwork is also a large factor in total quality management. Teamwork, as well as continuous improvement, led to important factors that allow for customer satisfaction. Making sure everyone from top to bottom within the company works together to make continuous improvements and meet customer satisfaction is important ("MSG Management Study Guide."). Making sure employees are given incentives to work together is an important way to solve problems, and make improvements because employees will take responsibility in there work (Williams, 383).

Conclusion

When applying time quality management to any company making sure you use the three principles, will lead to success. Making sure to apply teamwork and continuous improvements will both lead to the most important principle of time quality management and customer satisfaction. Applying this to a business will allow for reduced waste and inventory, an increase in revenues, and a higher productivity for the company ("MSG Management Study Guide."). These are all very important to a company in order to have successful management operations.

Six Sigma

Introduction

In order to improve performance for a company by reducing variability, Six Sigma is the choice. Six Sigma is the belief that facts and statistics are used to control quality in manufacturing ("MSG Management Study Guide"). Many organizations throughout the world is using Six Sigma to make processes controlled and predictable ("MSG Management Study Guide").

Summary of the technique

Six Sigma is based on data base methodology, which helps improve performance for a company by reducing variability ("MSG Management Study Guide"). In order to find facts about how the process of organization is run use statistics to convert raw data. Using this data creates processes that will allow for the same results again and again with close to a 100% predictability. You must view the Six Sigma process from the customer's side, by finding what is important to them, and identifying the holes in the process. There are Six Sigma levels in this process to explain, "MSG Management Study Guide" has a great explanation,

> "The sigma (standard deviation) is multiplied with the numbers 1, 2, 3 etc to come up with a range. For example let's assume that the average of a data set is 10, which the sigma is 2. Hence 1 sigma will include all the data points between 10+I-2 i.e. between 8 and 12. A 2 sigma measure would include 10I-2(2) i.e. all data points between 6 and 14. So on and so forth."

Sigma levels less than 3 are not desirable companies, and they will not be able to make it in a competitive market ("MSG Management Study Guide."). After level 3 gains are

small. Gains make a difference with overall cost of quality ("MSG Management Study Guide."). The Six Sigma process came into existence due to customer expectations, competition globally, and proven technique for quantum jumps ("MSG Management Study Guide"). The key goals of Six Sigma is reduce variation and defects/ rework, improve yield/productivity, and enhance customer satisfaction, and improve the bottom-line and top-line, and shortening cycle-time.

There are many things that can be applied when using Six Sigma. One being organizing and forming a process driven mindset for a company ("MSG Management Study Guide"). Reducing personnel time and skills required is also an affect of applying Six Sigma. It will also reduce wastage and inventory needs ("MSG Management Study Guide."). All of these eventually lead to customer satisfaction.

Conclusion

In conclusion Six Sigma can lead to numerous successes throughout a company from reducing wastage and inventory needs. Customer satisfaction can occur thanks to Six Sigma. So many things can be applied when using Six Sigma.

Works Cited

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