

Supply chain design- riordan manufacturing essay sample



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Every organization has their own manufacturing strategy, depending on the type of organization will depend on the strategy to have the best end result. Understanding the strategies and how they are used can help the manufacturing process. Riordan manufacturing is a Fortune 1000 organization which produces multiple products, throughout this paper Team C will explain Riordan's manufacturing strategy and the details that go into a manufacturing strategy. Riordan's Manufacturing Strategy

There are three different types of manufacturing strategies that an organization can utilize, which include the Chase Strategy, the Combination Strategy, and the Level Strategy. At Riordan, the manufacturing strategy in which is employed is the combination strategy. With the combination strategy the company must " vary the output by varying the number of hours worked through flexible work schedules or overtime" (Jacobs & Chase, 2011 pg. 534). With this strategy the company can vary the number of work hours to match the production needs of the business. At Riordan, production is forecasted based on averaging sales for the prior three years on the fans. The company assumes that " history will repeat itself within manageable limits" (Riordan Manufacturing, 2013). Riordan does, however, also receive periodic orders for fans that are not budgeted for in the production planning causing a need to increase production at various times of the year.

The benefit of using the combination strategy is that the company does not hire and layoff employees throughout the year. The combination strategy allows Riordan to alter work hours to " match production quantities to orders" (Jacobs & Chase, 2011 pg. 534). Riordan can allow schedules to be flexible and utilize overtime for employees when necessary. The

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Chase Strategy will layoff when production is low and this can cause employees to slow down their performance to prolong the impending layoff. However, the Combination Strategy eliminates the fear of layoff from the employees and gives them a sense of security in knowing that despite the production levels, they will have a job. Having strong production projections is what allows Riordan to utilize the Combination Strategy. Performance Metrics

Performance metrics are tools that businesses can use to determine the efficiency of production. There are various types of performance metrics that a company can use; however in evaluating the performance of Riordan's electric fan supply chains the two most relevant metrics would be the productivity metric and the efficiency metric. " Productivity is the ratio of output to input" (Jacobs & Chase, 2011 pg. 117). This metric is useful to Riordan because the company can determine the ratio of the dollar value of the output and dividing it by the cost of the inputs. This ratio helps the company to determine if they are spending more in labor and parts than they are generating in sales. For an organization in which generating sales is the primary goal, this is an important ratio to know. The productivity ratio determines whether or not the company is generating as much of a profit as it should or if too much money is being spent in order to make money.

The second metric that is beneficial to Riordan is the Efficiency Metric. This metric " is a ratio of the actual output of a process relative to some standard" (Jacobs & Chase, 2011 pg. 117). This metric is beneficial in determining if employees are meeting production standards or not. If

employees are not meeting production standards, this means that they are
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not producing enough of the product. Therefore, this can be costly to the company as it can cause the company to not meet orders received for product. The more efficient that an employee is, the more efficient the company will be in meeting the needs of its customer and fulfilling their orders. Supplier Relationship

At Riordan, the supplier relationship utilizes outsourcing. Riordan partners with FedEx to ship parts and products. “ Federal Express has one of the most advanced systems available for tracking items being sent through its services” (Jacobs & Chase, 2011 pg. 382). Having a company as reliable as FedEx and the services it offers is a great benefit for Riordan. Riordan can ship across the world and ensure that the customer will receive the product. Riordan is located in Hangzhou, China and ships across China as well as around the world to other countries including the United States. By utilizing an outsourced company, Riordan can save money by not having to operate a shipping facility of their own.

An additional benefit of outsourcing is the ability to use metrics to identify supplier performance. For Riordan, they can identify the performance of FedEx by evaluating both the number of on-time deliveries as well as identifying product that is received by the customer defective due to shipping. If customers are not receiving their products when they expect to receive them this can stress the relationship the customer has with Riordan. Therefore, the service received by FedEx is not only a representation of itself as a company but of Riordan as well. The best way to improve the supplier strategy is to find a shipping company that operates more efficiently than the service that is being received from FedEx. Currently, Riordan does not <https://assignbuster.com/supply-chain-design-riordan-manufacturing-essay-sample/>

have problems with the service from FedEx and that will help to maintain positive relationships with customers.

Forecasting

Riordan's forecasting information is based on the fact that the China location is responsible for two products, the electric motors and the plastic polymers. Production forecasting itself is based on how large amounts of manufactured products are essential in meeting anticipated sales in such a demanding forecasting period. In their warehouse located in China, the organization decided to practice the just-in-time lean production technique when manufacturing their electric fans. The just-in-time technique will ensure that Riordan will be able to supply plastic polymers and electric fans to their customers when needed. A rise in the general output or in production proficiency will reduce costs and in turn benefit the company. To determine a projection of production demands, the average amount of sales during the past three years has been analyzed. There are several things based on annual production requirements within an organization such as: delivery, planning cost, production and scheduling. To determine how the economy's flow would affect Riordan, it is imperative that the organization analyzes the appropriate economic markets. Production Plan

During the production procedure there are several stages that are all essential in meeting the high demands of quality from the raw materials to the actual shipping of the product. The just-in-time technique comes in because each electric fan part moves to the next stage just in time. To help reduce the leftovers and improve the value of the merchandise and the overall production it is important that the electric fan part arrives through <https://assignbuster.com/supply-chain-design-riordan-manufacturing-essay-sample/>

the assembly process as quickly as possible. Pull systems are enabled when a there is a demand for an electric fan. Electric fans are pulled from the station in the line when the demand is high and they need to be substituted. The system starts over again when electric fan demand increases. Sales Forecast

There are four basic types of forecasting. These are qualitative, time series analysis, causal relationships, and simulation. The sales forecast for Riordan was time series analysis and the quantitative method. The time series analysis bases the future predictions from past predictions. Riordan also uses the linear regression forecasting method which uses 10 to 20 observations for seasonally and at least five observations per season. This is considered a short to medium forecast horizon. The relationship between variables for this type of regression forms a straight line. Riordan manufacturing uses a combination strategy to manufacture their products which is successful for the organization. Riordan has multiple resources which help the process such as shipments and resources overseas. Explaining the process of Riordan Manufacturing really shows how much detail goes into the manufacturing project and the changes that are made to make the organization successful.

Resources

Jacobs, F. R. & Chase, R. (2011). Operations and Supply Chain Management (13th ed.) Boston, MA: McGraw-Hill Irwin