

Process design proposal

[Design](#)



A cover letter will be attached detailing how Team D will coordinate aggregate operations planning and TTS for the Radian's electric fan plant in China. MR. System The China plant at Ordain decided on lean manufacturing to ensure production efficiency and minimize the cost of waste. While this measure avoids wasted dollars on unnecessary inventory, the challenge of ensuring adequate stock to meet client needs remains.

Ordain must implement an MR. system to address this challenge. " The reason is that MR. is a logical, easily understandable approach to the problem of determining the number of parts, components, and materials needed to produce ACH end item" (Chase, 2005, p. 630). An MR. system will integrate the receiving, molding, trimming, assembly, packing, and shipping departments as only the absolute necessary units of raw materials will be purchased and phased through each department.

The market is saturated with various MR. systems to assist businesses with inventory management. Shop Floor Reporting is most compatible to Ordain because the system is " deployed with our raw materials, production scheduling or purchasing system. The MR. system utilizes pattern recognition and advanced planning algorithms with configurable logic" (Anonymous, 2010, p.). This system will allow Ordain to maintain minimum levels of inventory yet possess just enough raw materials to meet clients' custom orders.

Process Design Ordain Manufacturing will also need to have the production process redesigned as was indicated in the previous communications with Ordain. The use of a Just in Time supply system, an MR. system and the use

of VIM for supply management will need to be incorporated into the new process. This should smooth the issues with throughput in the China plant by increasing the availability of motors while reducing the on hand stock of plastics. Production Forecast Forecasting is an educated guess that can be tough to predict accurately.

The ideal philosophy of forecasting is to create the best one possible and have a defense in place by maintaining flexibility in the system to account for any forecast errors (Chase, Jacobs, & Aquilino, 2006). The market for electric fans is affected by the changing economy. Radian's major customers will be affected and should be analyzed to determine how the economy will affect the future of Ordain (Apollo Group, 2004). A time series analysis should be used, based on the history of the last three years to predict the future production.

Since, the demand is not growing or declining rapidly a moving average can be used by using an average of the previous years' demand, giving each year equal value (Chase, Jacobs, & Aquilino, 2006). Supply Chain

Management System Supply chain management involves the streamlining of inventory, manufacturing, labor and distribution costs in order for a company to be more productive, efficient and profitable. The Ordain Manufacturing plant in China produces electric fans and distributes them worldwide and needs to implement a more agile supply chain process in order to reduce costs and increase profitability.

To make the production of electric fans more efficient, Ordain must put in place an EDI and VIM system, change the levels of inventory that are carried

and implement mass customization procedures using the Pontiac, Michigan distribution center. An Agile supply chain is one " that utilize strategies aimed at being responsive and flexible to customer needs, while the risks of supply shortages or disruptions are hedged by pooling inventory and other capacity resources" (Chase, Jacobs, & Aquiline, 2006, p. 413).

An electronic data interchange (EDI) " links with retailers" (Chase, Jacobs, ; Aquiline, 2006, p. 410) and allows the retailers to electronically inform the company of their demands on a daily basis. Implementing the EDI system would allow the China location to have instant access to the needs of the retailers and build or ship to the retailers on a regular basis in order to fulfill their needs. Implementing this system would also reduce the amount of finished goods inventory and ensure that customer's demands are met.

The China facility must also eliminate the plastic polymer and electric fan motor inventory and put in place a vendor management inventory (VIM) system. Putting the VIM inventory system in place would allow Ordain to carry fewer inventories of raw materials and still obtain the required raw materials in time to accommodate demand. Taking an agile approach to supply management will allow Ordain to be more efficient by reducing time and costs in the manufacturing process, therefore, increasing sales and profit. Production Forecast (Chase, Jacobs, & Aquiline, 2006).

Forecasting is an important part of any planning; in the short term forecasting is used to predict materials, products, services, or other resources. This will allow schedule and labor changes for that of the demand. In the long term forecasting is used as a basis for strategic changes such as

developing new markets, products, services, or for expanding or creating new facilities. The market for electric fans is affected by the changing economy. Radian's major customers will be affected and should be analyzed to determine how the economy will affect the future of Ordain (Apollo Group, 2004).

A time series analysis should be used, based on the history of the last three years to predict the future production. Since, the demand is not growing or declining rapidly a moving average can be used by using an average of the previous years' demand, giving each year equal value (Chase, Jacobs, & Aquiline, 2006). Implementation Plan Effective production planning is executed successfully by designing an implementation plan that will define objectives, identify specific tasks with corresponding deadlines, and provide a visual representation of the project's progress and goals.

The implementation plan will follow three phases. (See Appendix A) Phase I will be a pilot project. (T 1) Management will approve a planning am, objectives, tasks and responsibilities for the successful execution of the project. (TO)The next task will consist of identifying and purchasing resources and the materials needed for production. (TO)Training will follow on the assembly and production requirements. Phase II will begin pilot production and initiate a quality control and assurance support.

In this phase, troubleshooting, risks, and support mechanisms are identified. Phase III will first introduce pilot production, and then execute real time production at the China manufacturing plant. (TO) Plans from the lot project will be given to all employees during training and orientation workshops.

(TO)Materials will be ordered for production and real time production using Just-in- time system will begin (TO) on a general basis following top-quality-management and maintenance.

Conclusion Ordain Manufacturing has the opportunity to streamline their manufacturing process in order to increase production efficiency. With this will come a decrease in costs resulting in increased profits after all changes are implemented and training has been complete. The design of the new process will also enable Ordain to moment with other similar companies on a global scale. References Apollo Group, (2004), Ordain Manufacturing, Apollo Group, Inc. , University of Phoenix Chase, R. , Jacobs, F. , ; Aquiline, J. 2006), Operations Management for Competitive Advantage, the McGraw-Hill Companies, Inc. OPS/571 August 2, 2010 CEO Ordinal Manufacturing Dear CEO: We are excited to present the implementation proposal for Ordinal Manufacturing that will discuss: Lean Production Top Quality Management Process Design Although there are many operational designs, the correct selection of technologies ND tools will ensure optimal performance and quality that will provide information regarding strategic planning and implementation to meet consumer demands.

This proposal in combination with our current forecasting approaches will benefit the firm and the success of the electric fans. The enclosed proposal discusses three operational phases that will * Identify potential bottlenecks to achieve maximum customer satisfaction * Enhance product performance and quality through an improved process design. * Quality control procedures and TTS processes * Increasing profit and decreasing costs, through implementing a MR. system and recasting We are confident that the <https://assignbuster.com/process-design-proposal/>

enclosed proposal will prepare Ordinal Manufacturing for future success, production, and performance.