

Essay on riordan manufacturing inc

[Business](#), [Company](#)



Proposal Package for Riordan Electric Fans Inc.

Introduction

The current proposal concerns the issues Riordan Manufacturing Inc. faced in China where the company has a plant. Riordan Manufacturing Inc. is a manufacturer of plastics with headquarters in San Jose, California, which expanded globally. It also has facilities in Georgia (Albany), Michigan (Pontiac), and China (Hangzhou). It produces plastics including fans of all sizes, plastic bottles, custom plastic parts, medical stents, and heart valves using innovative technologies. The company is a Fortune 1000 enterprise with 550 employees working and \$1 billion of revenue. It focuses on research and development that gives the company an irrefutable competitive advantage over its rivals (“ Riordan Manufacturing History”, 2008).

The proposal concerns the material requirement planning and supply chain issues, offers new production process design and improved demand forecasting approach. New approach to forecasting is developed with the help of Lean Manufacturing and outlined in the Gantt Chart.

Coordination of operations and Total Quality Management processes are described in the cover letter to CEO of Riordan Manufacturing Inc. aiming at identification of the strategic goals of the company.

Material Requirements Planning

Riordan Manufacturing China plant is a separate operating unit which prepares its own demand forecasts. The unit purchases electric motors and polymers from local Chinese companies which sometimes fail to deliver the supplies in a timely manner. The demand forecasts are based on the average

number of sales for the preceding three years. Orders can be either picked up at the plant or shipped to the customers throughout the country (“ Riordan Manufacturing History”, 2008).

China plant faced difficulties with estimation of material required for the production of fans. Estimation of quantity of materials in a short-term period is an issue because orders are random and the quantity of the end items varies significantly.

The plant consists of several departments which are to implement certain functions. Receiving departments are responsible for collecting raw material for production; molded unit is a transitional division between receiving department and trimming department which can be optionally used for production of items; assembly department is to create higher level components; packaging department is engaged in packing ready items; shipping department handles supply of packed items to a distribution department. Trimming department becomes wasted by intermediate products (“ Riordan Manufacturing History”, 2008).

The company is concerned by the issue of scrap products accumulated in every unit. The management of the company wonders if there is an opportunity to reduce the waste products in order to decrease production costs of fans. Sometimes spare parts are used for production of customized items. Material Requirements Planning (MRP) needs to be reconsidered and optimized. It must be based on the variability of the supply process, production and demand for fans.

New Process Design

The operation process of Riordan Manufacturing Inc. in Hangzhou is currently based on the quantity of fans which are to be manufactured according to customers' demand. As the local supplier of motors is not able to deliver 100% of the stock in time, the company would probably opt for an alternative manufacturer to meet the demand.

Another option is to keep motor supplies as inventory units. However, in this case the cost of inventory will increase. Thus, the first alternative is more preferable. It is quite possible that purchasing lacking supplies from another local company will increase competition between them leading to better services for Riordan Electric Fans.

There are plenty of suppliers of polymer material. Thus, the stock can be balanced by the lower quantity of polymer material helping reduce financial burden caused by an excessive quantity of motors. The new process design is attached to the proposal in the Appendix 1.

Supply Chain for Riordan Manufacturing Inc.

Operational process of any company is based on the Supply Chain Management. It regulates the product flow from supplies to shipping readymade items to the customers. The core processes, such as purchasing, development and customer relationship management are centered around Supply Chain. Thus, product development process provides Supply Chain with the necessary information, for example, engineering comments on changes in design or material and introduction plans. In its turn, Supply Chain provides production development with the constraints of the

production processes helping schedule product development to meet the market requirements. Leadership on the market and significant competitive advantages are reached in this way (Chase, Jacobs & Aquilano, 2006).

Globalization offered the companies many opportunities of cost reduction. For example, outsourcing parts of the processes and assigning the process of decision making to specialized companies thus relieving the management of the company of responsibility.

Application of effective inventory management approaches allows reduction of operational costs by implementing remote location which can help logistics processes run smoother.

Another advantage of globalization is product sourcing. It can provide purchasing process with purchasing requirements obtained from production plan. Procurement process provides Supply Chain with the information concerning supply constraints, such as critical demand. This data has to be considered when providing effective Supply Chain Management. Mass customization in this respect can be a feasible option too. The costs of procurement can be reduced because supplies are available at lower prices, for example, in developing countries where the company expanded.

The company concentrates on inventory management. Supply Chain focused on inventory management can help fill orders. Supply Chain Management at Riordan Electric Fans captures the processes of inventory management of raw materials to readymade products. It helps track the quality of the end products and deliver items in time. Optimization of Supply Chain is important

for effective supply management and for making sales forecasts.

Improvement of measurement process is important for increasing customers' satisfaction and cost reduction which is the part of the company strategy (Chase, Jacobs & Aquilano, 2006).

Production Forecast for Riordan Electric Fans

Currently, the production plan of the company is based on the moving averages approach. The required quantity of supplies including electric motors and plastic polymers is calculated by the manufacturing unit. The demand for electric fans is calculated on the basement of the average sales of the three preceding years. The figure then extrapolated for the next forecasting period (Krajewski & Ritzman, 2005).

Customized items are projected on the basement of yearly order requirement to effectively meet the customers' demand. The calculation includes costs for production, delivery, scheduling and planning.

Taking into account the analysis conducted, there is a conclusion that implementation of implementation of implementation of Lean Manufacturing approach is the best strategy for Riordan Electric Fans. This approach would help meet market demand offering required product in timely manner. Also, this approach offers an opportunity to reduce waste material together with flexibility in meeting changes (Krajewski & Ritzman, 2005).

Implementation Plan for Riordan Electric Fans

I offer two phases implementation plan for the company. Gantt chart with detailed project implementation plan is included in the Appendix

The implementation plan consists of two parts: the first part is the Testing Project; the second part is the Final Project. The first part consists of five tasks and the second part consists of three parts respectively.

The five steps of the Testing Project include working team formation, top management approval, selection of the project implementation tools, and actual implementation of Testing Project and Total Quality Management control. Formation of working team includes distribution of the roles for the project implementation. Top management approval suggests distribution of employees' responsibilities in the project framework. Total Quality Management is designed to carry out control over the process and troubleshooting. The second part of the project is an actual implementation of Lean Manufacturing in the plant. The processes are similar to those of the Testing Project. The second part of the project includes testing the project in real production environment, implementation of Just-in-Time system, and Total Quality Management for the second part of the project. The deadlines for completing each task are also outlined in the Gantt chart (Appendix 2).

Cover Letter to CEO of Riordan Manufacturing Inc.

The Cover Letter to CEO of Riordan Manufacturing Inc. is attached in the Appendix 3 below.

Conclusion

The current proposal package concerned several issues which Riordan Electric Fans encountered. With respect to the nature of the problems, I developed Material Requirement Plan. Also, I described a new process design and Supply Chain for the company. Also, main principles of a production

forecast were outlined. The implementation plan was attached in the Appendix 2 in the form of the Gantt chart. The cover letter to CEO of the company was attached in the Appendix 3.

References

Chase, R. B., Jacobs, F. R., & Aquilano, N. J. (2006). Operations management for competitive advantage. (11th ed.). New York: McGraw-Hill.

Krajewski, L. J., & Ritzman, L. P. (2005). Operations management: processes and value chains. Upper Saddle River, New Jersey: Prentice Hall.

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