

Barilla spa (a)

Philosophy



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Executive Summary

In order to respond to extreme demand variability and incidents of high stock out rates Barilla is currently applying pressure to both its' manufacturing and logistics departments to restock distribution centres as quickly as possible. This is resulting in high distribution costs and a reduction in overall profits.

In the long term I am recommending that Barilla SpA implement a Just in Time Distribution (JITD) system to reduce excess inventory and eliminate stock outs at the distributor to market level of the distribution chain. The new system will include a forecasting and planning system based on information provided by the distributors on a day-to-day basis. The JITD will reduce inventory to acceptable levels and will reduce inventory carrying costs. It will also flatten demand resulting in cost savings at the manufacturing and shipping levels. It will also provide an opportunity for new sales promotion types and levels.

Initially the new system will be implemented on a trial basis and at the end of the trial with successful performance indicated; the system will be presented to internal departments as well as distributors. This report will be used as a basis for discussion in our production meeting at the end of the week. Giorgio Maggiali Director of Logistics Barilla SpA (A) December 4, 2012

Immediate Issue Barilla

SpA is experiencing difficulty in the manufacturing and logistics sectors of their operation because of an extreme variability in demand of their pasta products.

Though demand for pasta in Italy is flat Barilla has been experiencing sudden spikes in demand for varying types of pasta from different areas. Because of rigid manufacturing requirements and lengthy lead times from placement of order to delivery, stock outs have been experienced between the distributors and retail stores.

Systemic Issues Sales Operations

Nature: Tactical Timing: Short Term Distributors are encouraged to purchase product based on discounts rather than product demand at their customer's locations.

The sales representatives are given specific sales targets to meet and are conceivably focusing on the discounted products because they are an easier sell to the distributors. Distribution: Nature: Tactical Timing: Short Term and Long Term Lead time from placement of order to delivery ranges anywhere from eight days to fourteen days, though the average is ten calendar days. This includes production and shipment of the product. Most distributors do not rely on forecasting systems to place their orders; they simply count stock on a cycle and place orders to refill to the previous level.

There is no analysis based on product type, time of year etc. Stock outs are happening between the distributors and the stores; the lead time to fill the product gap is too long. Manufacturing Process: Nature: Strategic Timing: Short Term and Long Term The pasta production process (particular sizes and types of pasta require fixed heat and humidity settings in the kiln) makes it difficult to replace a specific type of pasta that has sold out at a vendor's store because of unusually high demand. The production process

cannot be changed or sped up without risking a decline in quality of the product. Part Four: Qualitative Analysis

Barilla SpA is the largest pasta producer in the world. They offer both dry and fresh pasta as well as a variety of other products including cookies, cakes and breads. Currently, the demand for pasta in Italy is flat with only an approximate increase in demand of 1% per year. Barilla competes with other pasta providers (approximately 2, 000) by utilizing innovative advertising techniques and by using high quality raw materials in their products. In order to compete in the Italian market they utilize the traditional method of distribution to their customers via their own distribution center as well as a number of independent distributors.

Distributors may place orders when they choose; each year is sectioned off (referred to as canvass periods) and specific products are offered at discounted rates in an assigned period. The type of product that is offered in each canvass period is decided by the sales department. There are also volume discounts offered on certain products which may be specialized by the Barilla sales personnel (i. e. free shipping for full truckload orders). Sales staff has set sales targets for each canvass period which results in pressure sales to the distributors.

The distributors will purchase more of the discounted products in order that they can pass the savings to their customers to achieve higher sales. The majority of distributor's periodically review their stock of Barilla products and place orders with Barilla based on re-stocking to the previous level they had of each product type. Input from the store level is not considered as the main factor in ordering. There are no set minimum or maximum levels for types of

pasta or for size of distributor. Pasta production is time consuming; a series of steps are involved that must be followed to produce the quality of pasta that is Barilla's trademark.

The drying process alone takes approximately four hours; the settings of the kiln are specific to the size and type of pasta being produced. In addition to production time there is shipping time which varies dependent on the proximity of the manufacturing plant to the distribution center. Shipping encompasses the availability of vehicles and the cost of shipping. The current method of ordering means that there are less-than-truckload or LTL shipments taking place which are more expensive than full-truckload or FTL shipments. Part Five: Alternatives Alternative One: Sales Controls

The Barilla sales department will offer product promotions based on product movement at the region/store level. Volume discounts will be discontinued. Pros: Promotions based on sales data from the individual stores will reduce stock outs and will maintain the sales department's relationship with the customer. Cons: Distributors lose control over the stock and stock levels that they are carrying. Sales of other product lines that Barilla produces will decline and some customers will change to other suppliers for their variety of product. Alternative Two: Inventory Controls

Barilla will set minimum/maximum inventory levels for each SKU based on historical sales data. Safety stock will be produced of the pasta types that regularly stock out at the distributor locations. Pros: Instituting set inventory levels for each SKU will ensure a more realistic supply of product for each location. Producing safety stock for the pasta types that spike will reduce restock time and mitigate market share loss. Cons: Historic data is inherently

flawed because of trade promotions and volume discounts; minimum/maximum levels would be skewed.

Excess stock would take up a significant amount of space and extra storage space would need to be obtained. There will be conflict with distributors because of their loss of control and with sales because of the loss of promotional opportunities. Alternative Three: Just in Time Distribution (JITD) Product will not be ordered by the distributor but will be supplied by the manufacturer to the distributor based on data provided about the previous day's shipments from the distributor to the customers as well as their current stock levels of Barilla product.

Pros: Barilla would ship product only as it was needed rather than having large amounts of excess stock. Information regarding supplies at the distributor's warehouses would aid Barilla in improving their forecasting system. Barilla would have more control over the distribution process. Cons: Distributors do not want Barilla interfering with their inventory. The sales staff is reluctant to lose their opportunity to meet and exceed sales targets through their promotions. Part Six: Recommendation

We recommend the implementation of Alternative Three, the JITD model. JITD will enable Barilla to cut current distribution costs and stabilize supply to the customers. JITD is based on real time data and inventory specific information. Rather than basing product supply on current promotions or volume discounts, product supply is based on historical demand at the specific distributor locations. This will ensure that customers receive product that they can move rather than being supplied product that will sit on their shelves for extended periods of time. Barilla will be able to reduce inventory

levels at their locations because demand will be stabilized and as a result carrying costs will be reduced. * Transportation can be regulated as product delivery is regulated and cost savings can be found through possible transportation discounts (FTL vs. LTL shipments). * Promotions can be tailored to individual products at individual locations. Barilla can manage inventory levels more effectively than the distributors because we have an understanding of all facets of distribution.

The distributors do not have a clear understanding of the manufacturing process and the reason for lengthy lead times. Traditional trade promotion and volume discounts will be eliminated by the implementation of JITD. A new promotion structure will be implemented to maintain market competitiveness. Part Seven: Recommendations Implementation Plan We believe that to encourage both internal and external partners to embrace the JITD system, Barilla should introduce JITD as a pilot project at one of the distribution facilities that has experienced extreme demand variability.

Customers are resistant to the change because they will lose control over product type that will be carried. They do not want Barilla to push product through their centres to reduce their costs while restricting the distributor's role in the delivery system. Barilla can present the data from the pilot project to the other distributors. The data will prove to distributors that implementing the JITD system will be of benefit to them as well as to Barilla. When proposing the JITD system to customers Barilla has to explain that it will: * Reduce Costs * Reduce Inventory Levels Improve Fill Rate to their Stores Implementing JITD is in the best interests of Barilla, the distributors and their customers. There is internal resistance, primarily from the

marketing and sales group, because there is a lack of understanding about the effects that implementing the system would have on the various departments and their functions and duties. The sales department, in particular, is concerned that a JITD system would reduce their duties and impedes their ability to sell product by removing the current trade and volume purchasing promotions.

In order to get buy in from each department I need to have the support of management including DiMaria, the manager of the sales department. Support for the changeover has to be top down as the current problem is not just a logistics issue but is a supply chain issue. Part Eight: Monitor and Control The pilot project will be implemented within two months and will be take place over the course of three months. The Key Performance Indicators and measurements are: Customer Demand Levels – Success is flat demand or less than 1% variability in demand. Stock Out Levels – Success is stock out levels at less than 2% per order cycle. Inventory Levels – Success is less than or equal to 90, 000 kilograms of pasta/day at the manufacturing facility and less than 4% excess inventory total at the distributor's warehouse. At the end of the three month trial the Barilla management team will review the data and prepare a report to present to individual departments within Barilla and to distributors. If figures, as laid out above, have not been met then Barilla will continue to maintain the current distribution process.