

# Global supply chain management essay sample

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Metrovox is a German electronics manufacturer that designs, develops and manufactures a range of products for the entertainment and home electronics sector. Management has recently focused on two related products, Bugabyte and Bugabyte Lite. The Bugabyte is a video and audio player with a flash drive. The company has invested heavily in the research and development of this product, which is a small hand-held unit about the size of a credit card, and is about 50 percent thinner than their competitor's offerings. The Bugabyte Lite is a flash drive and mp3 player. Metrovox sells this product to a distributor in North America and to a major European retailer. The market for these two products is highly competitive, and Metrovox relies on product differentiation as a source of competitive advantage in both Europe and North America. The retail price is the same as, or slightly higher than, their competitors. Product uniqueness is based on the size of the Bugabyte and the storage capacity of the Bugabyte Lite.

The Bugabyte is a relatively new product on the market and was designed to meet predicted future growth in popularity of handheld video devices.

Demand is anticipated to be low to moderate for the first few years of sales, and expected to grow thereafter. The Bugabyte Lite has been on the market for over six years, under a different product name. The casing design was recently changed to compliment the Bugabyte, and marketing efforts within the last few months have strived to address the fact that this is the same quality product with a new look. This product experienced healthy growth for its first four years, and has stabilized over the past two. The Bugabyte Lite is not a product that will contribute to significant revenue growth for Metrovox, although its presence in the market contributes to brand continuity and

awareness. There are also a large number of competitors with similar products.

Currently, Metrovox purchases components for these products from suppliers in China. The components arrive at their German assembly plant. Their suppliers, on the whole, are reliable, and do not contribute to any delays in production or assembly. The assembly process involves mounting a SMD (surface mounted device) decoder chip and a PIC controller to a circuit board, sending the assembled boards for testing and then integrating the tested boards into the product casing. Due to the recent development of the video capable Bugabyte, Metrovox is experiencing increasing production delays, which contributes to their 30 percent late delivery rate. Management is considering outsourcing the assembly process to one of their suppliers. They need to determine which of the two products, the Bugabyte or the Bugabyte Lite, is the best candidate for outsourcing assembly.

In need of sound advice

Metrovox hires the services of Grunwald and Vogel, a manufacturing consultant, to help determine how delivery times can be better managed and how to reduce their 30 percent late delivery rates. On-time delivery lead times from procurement, assembly, and circuit board testing through to assembly of the tested components in their casing takes approximately four weeks. There are very specific measurements for circuit board quality testing compliance defined in terms of the solder used and the soldering process. The circuit boards for both the Bugabyte and the Bugabyte Lite must have a minimum ten year life span.

Annual demand for the Bugabyte in the first year of release is 300 percent over forecasted demands. Production management and the sales team cannot reasonably predict future demand. Since the Bugabyte Lite has experienced stability in sales over the past two years, forecasting has been accurate and the margin of error is much lower than that of the Bugabyte. The entire assembly process for Bugabyte and the Bugabyte Lite accounts for about 5 percent of the product's price, and is not viewed as an aspect that contributes to the product's competitive advantage.

With the recent design and production of the Bugabyte, Metrovox has had to include several new stages in their assembly stage to accommodate the video capability of the product. There is also a significant amount of proprietary information that is used during circuit board testing. Because the Bugabyte Lite is a product that has been on the market for a number of years, it has a well established assembly process. Product testing is based on technology that is widely used and that has been around for five years.

Music to Metrovox's ears

Grunweld and Vogel's task is to assess which product is the most suitable candidate for outsourcing assembly. A key element that needs to be taken in to account is that the new supplier and assembler has to commit to delivering the assembled circuit boards to meet Metrovox's delivery schedule. Metrovox has an agreement with North American distributors and European retailers that they would deliver the Bugabyte and Bugabyte Lite in the same shipment. Quality and defective rates are also a concern for management. The outsourced assembler needs to maintain the same high

standards Metrovox applies to assure their market position and competitive advantage.