ERP Implementation for Production Planning at EA Cakes Ltd.

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EXECUTIVE SUMMARY

This case details the implementation of the Systems Applications & Products (SAP) Production Planning module at EA Cakes Ltd. The market forced the company to change its sales and production strategy from “make-to-order” to “make-to-stock.” The decision to change the strategy involved not only the company’s decision to invest much more money in accumulation and keeping stocks of finished goods, it required a complete redesign of its production planning system, which was an integral part of an ERP system that used SAP software. A team of IT specialists and production planning personnel was formed for designing computer support for the new production planning system business processes. There was no consensus in the design group. IT specialists were sure that existing SAP software could provide adequate computer support. The production planning staff had doubts that SAP modules are relevant to their business processes. They argued that poor fit between the business processes implicit in the software and the business processes of EA Cakes will result in failure. To resolve the problem, the management invited a consulting company. The consultants suggested quickly designing a rough prototype system. Analyzing this system would help the working group to reach a consensus. Apart from giving adequate computer support to the new production planning system, the SAP implementation had to solve several implementation problems identified by consultants. The question is: can a standard software system like SAP give adequate computer support to an individually designed business management system?

Keywords: enterprise modeling; enterprise resource planning; material flow management; production planning IS

ORGANIZATIONAL BACKGROUND

EA Cakes Ltd., New Zealand, is a successful food manufacturing company with a major share of the market in New Zealand and the Asia-Pacific region. It produces more than 400 different kinds of fresh and frozen food products.

From a shelf-life point of view, the company manufactures three types of products:

1. Shelf-stable and frozen food with practically infinite shelf life (up to one year)
2. Chilled products with a medium shelf life (from three to six months)
3. Short shelf life products (from one week to six weeks)

The demand for many products is uneven. Christmas cakes and puddings, for example, are mainly sold during November and December. Generally, the demand for cakes is lower during summer than during winter. Sales are also volatile because they are conducted through numerous channels, including major supermarket chains, route outlets (such as groceries stores), and food service for hospitals, hotels, and restaurants. Sales to Australia, the major export market, add uncertainty to demand.

For years EA Cakes Ltd. built a reputable brand name and had enjoyed a stable market. As a result, the dominant production strategy of the company was make-to-order, MTO (see for example, Vollmann, Berry, and Whybark, 1997). Permanent customers, such as supermarkets, shops, and restaurants, placed orders either for the next week, or for longer intervals with a regular delivery, and the company provided good customer service both in terms of quality and of on-time delivery.

In the late 1990s EA Cakes Ltd. began to observe a decline of its market share in many of the traditional markets. Marketing analysis showed that the main reason for the drop in sales was price increase due to the company’s high production costs, and as a result competitors offered lower prices on similar products. The famous brand name did not attract customers enough to support the higher prices. An attempt was made to compete on low retail prices, with the results of slightly increased sales volumes, but significantly decreased profit.

Soon the company was forced to reconsider its sales and production strategy. Two major faults were identified:

1. To support its MTO strategy, the company was forced to have a significant capacity cushion both in labor and equipment. It was necessary for providing stable customer service while the demand was uneven, sometimes with huge lumps. During Christmas, for example, the company usually tripled their average sales volumes. EA Cakes Ltd. was accustomed to seasonal variations and Christmas sales lumps, and coped with them by accumulating stock. Daily and weekly variations, however, led to losses in production time in low periods and to excessive use of overtime during peak periods. High labor cost variances (as compared to the standards) and low machine capacity utilization were prevalent.

2. The MTO strategy implied that the company always quoted lead times to customers; for example, an order placed this week would be promised to deliver next week, or the week after, if there were too many orders. Old traditional customers agreed with this system, and the company was mostly successful in keeping its promises. The market, however, had become much more dynamic. Increased competition from NZ and overseas and a heavy promotional activity required improved "speed to market." Many customers wanted the product on demand, not next week. The company was unable to exploit such opportunities and lost this significant part of the market.

As a result EA Cakes Ltd. had decided to change its production and sales strategy (as recommended by operations management literature; see for example, Vollmann,
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