Bringing E-Commerce to a Dental Supply Company: 
A Case Study of ENG Dental Supply

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EXECUTIVE SUMMARY

This case describes a dental supply company’s experiences in the design and implementation of an e-commerce solution. The online store provides dentists with over 16,000 different dental products, from alloys to dental instruments to X-ray products. The design choices, process, and challenges of implementing this e-commerce solution are discussed.

Keywords: B2B e-commerce; e-commerce strategy; organizational change; system acceptance

ORGANIZATIONAL BACKGROUND

The Company
ENG Dental Supply is a family-owned and -operated dental supply company serving the community of dentists of southern California. The company was founded in the 1940s and currently serves approximately 1,000 clients and offers over 16,000 different products from over 200 manufacturers. The company has between 20 and 25 employees and contractors. ENG Dental Supply was founded as a family business by European immigrants. In the mid-90s, the management of the company was turned over to the owner’s children, Ron and Laurence.

Business Issues Addressed in the Project
ENG Dental Supply was a labor-intensive company where traditional methods were still used for most of the company’s operations. ENG was relying on the fax machine, and most processes were completed manually. Management did not have the vision to keep up with technology. It did not consider the importance of technological solutions that other firms have implemented to increase efficiency and cut costs. The company’s processes were considered to be so straightforward by the management that little attention was paid to changing the way business was conducted. A decision to modernize came as revenues started falling and existing clients started ordering dental supplies from competitors.
The Management
The company is managed by the following executive team. Ron serves as the president and chief executive officer. He is responsible for managing the sales team, the customer service department, and the purchasing operations. Laurence is ENG’s chief financial officer. He is responsible for human resources, accounting, and the technology infrastructure. Middle management consists of the warehouse operations manager and the customer service manager. The warehouse manager is responsible for shipping, receiving, storing, and tracking warehouse inventory. The customer service manager is responsible for the customer service team.

The Organizational Structure
The organization consists of the following units (see Figure 1).

- The executive team oversees the organization and maintains relationships with key clients and top suppliers.
- The accounting department is responsible for accounts receivable and accounts payable, as well as financial reporting.
- The warehouse operations department receives products from over 200 manufacturers of dental products and equipment. Employees unpack merchandise, arrange merchandise on shelves in the warehouse, and enter incoming inventory into the computer system. They also collect merchandise from shelves and pack them into boxes for shipment to dentist offices, and load trucks for daily delivery.
- The purchasing department monitors inventory levels and purchases the appropriate merchandise ensuring sufficient levels exist in the warehouse.
- The customer services department answers client phone calls to take orders and provides product information and prices. They record orders in the computer system and also process faxed orders sent by salespeople or clients.
- The sales department visits client dental offices to provide product information and takes orders. It then faxes these orders to the customer service department for entry into the computer system and fulfillment. It also visits prospective clients and works to convert them to clients.

Existing Technology
The company relies on one AS/400 mainframe computer to support its key business processes. This server computer hosts the DMS dental supply application and database where information

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Figure 1. ENG’s departments
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