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Chapter XV

Teaching Integrated Business Processes via ERP Configuration

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ABSTRACT

The business world has recognized the importance of managing business processes rather than functions. Business education has begun to embrace this transformation, although the organizational barriers between departments in most business schools have limited the success of teaching business from a process-oriented perspective. ERP technology provides an opportunity to illustrate the management of integrated business processes. One approach to using ERP software to teach business processes is through a dedicated configuration class. In this class structure, students configure an ERP system to manage the basic business processes of a small company. Because of the integrated nature of ERP systems, students must configure the system in a number of functional areas — accounting, operations, sales, and

so forth — many of which are not in a student's major. The necessity of configuring an ERP system in a number of functional areas illustrates the importance of having a background in all basic business functions to successfully manage a business enterprise. This chapter will provide a review of an ERP configuration course that is currently being taught at Western Michigan University using SAP R/3 business software. The context of the course, its mechanics, key learning points, and areas for future development will be presented.

INTRODUCTION

Enterprise resource planning software is gaining momentum in business school curricula as a means of integrating business processes and traditional functional disciplines (Antonucci, Corbitt, Stewart, & Harris, 2004; Hawking et al., 2002; Hejazi, Halpin, & Biggs, 2003; Johnson, Lorents, Morgan, & Ozmun, 2004; Nelson & Millet, 2001). While numerous business process exercises have been designed for student use, literature involving ERP configuration is scarce. Davis and Comeau (2004) describe configuration exercises as part of an enterprise integration course. They use configuration to provide students with a high-level appreciation of the functional connections provided by ERP software. The Western Michigan University SAP R/3 configuration course follows a similar philosophy. Working with material management, purchasing and sales organizations, plant parameters, financial accounting, and controlling areas helps students understand the relationships of interconnected business processes.

ERP CONFIGURATION — WHAT IS IT?

Enterprise resource planning (ERP) software is standard business software designed to manage a company's key business processes in an integrated fashion. Because all businesses are different, ERP software must be designed to manage a variety of business processes. When enterprise software is configured, data settings are selected so that business processes can be managed in ways suitable to the particular companies who utilize the enterprise software. ERP configuration at Western Michigan University is accomplished through the SAP R/3 system. Its structure is shown in Figure 1. The SAP software establishes relationships among enterprise organizational elements in a hierarchical structure. The client sits at the top of the SAP hierarchy. All business functions requiring integration should exist under one client. All components under the client share the same vendor, customer, and material designations. They also share databases, database tables, and a common general ledger number and description. The chart of accounts (list of accounts used for financial reporting) is assigned at the company level. Each company must be associated with one or more company codes. A company code is the level in which transactions are processed and accounts managed. Financial statements are created for company codes, but they can be consolidated at higher levels if needed. Master data of the company is stored at the company code level. Master data is relatively static (e.g., names and addresses of customers and suppliers) compared with dynamic transactional data (orders, shipments, inventory levels). All subordinate logistics and production elements are associated in some way with a company code.

Credit control areas manage customer credit. Multiple credit control areas can be associated with a company code. Controlling areas link the FI and CO modules. They are the highest reporting level under cost center accounting. Both company codes and controlling

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