Implementing an Enterprise Resource Planning System for the City of El Paso

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ABSTRACT
This paper reports on a continuing study evaluating the ongoing implementation of an enterprise resource planning (ERP) system for the City of El Paso, and reports on system implementation over the period from September to December 2001. The study aims to identify issues and problems associated with ERP project planning and implementation, particularly in a local government setting, and accordingly provide insights for managing future projects.

INTRODUCTION
Case studies (e.g., Palaniswamy and Tyler, 2000) have shown that firms that have implemented ERP systems have made improvements in inter-functional coordination and business performance at various levels, helping them reduce cycle times, reduce inventories, and share information readily across the organization. ERP systems, however, are extremely complex pieces of software that require huge investments of financial resources, time, and expertise. Some companies have experienced “horror stories” in implementing ERP systems. Hershey Foods Corporation, in its 1999 Annual Report, declared that implementation of the final phase of its ERP system led to significant problems in the areas of customer service, warehousing, and order fulfillment. FoxMeyer Drug has argued that its ERP system helped drive the company into bankruptcy (Davenport, 1998). In some cases, implementation projects may be poorly managed, with the organization having inadequately trained personnel to install and customize the system.

ERP systems have just started to penetrate the public sector marketplace, and the governments that have implemented them are only just starting to enjoy the benefits of such systems (Miranda, 2000). Miranda, however, refers to ERP as “the backbone of digital government,” forcing structure and order on diverse transactions and business processes. Sclafani (2000) declares that an ERP system will allow the various functional components of a government agency’s overall business system to share the same information, with processes that occur in one functional area automatically kicking off dependent and related processes in the agency’s other functional areas—in much the same way that such integration is enabled by an ERP system in an industrial setting.

Miranda (1999) examined the use of ERP systems in the public sector, and identified some obstacles to ERP implementation in government organizations—e.g., turf battles over system ownership; difficulty in establishing project management capabilities, identifying full-time staff resources, and finding experienced implementation partners; failure to recognize limitations of ERP systems. Some observations and suggestions on ERP project implementation—e.g., the need for top management commitment, cross-functional participation, and effective change management—commonly appear in the limited number of public sector case studies published thus far (e.g., Fontayne-Mack, 1999; Glaser, 1999; Harris, 1999). These observations and suggestions have been made also with respect to ERP projects in the private sector. Others—e.g., a greater difficulty in finding and dedicating full time project staff—may be more specific to the public sector.

THE CITY OF EL PASO: PREVIOUS COMPUTER INFORMATION SYSTEM
With a population of approximately 700,000, the City of El Paso is the fourth largest city in Texas and among the 25 largest cities in the United States. The Director of its Office of Management and Budget (OMB) reports El Paso’s operating expense budget to be only 155% among all U.S. cities. Its operating budget for the current fiscal year (September 1, 2001 to August 31, 2002) is about $540 million, based on all funding sources. The City has some 5,800 employees.

Until August 2001, the City of El Paso and the County of El Paso shared a mainframe-based computer information system via an “inter-local” agreement under which an agency called Consolidated Data Processing was formed. The system, based on mainframe technology, consisted of four major subsystems: Financial and Management Information System; Personnel Management Information System; Advanced Purchasing Information System; and Budget Preparation System.

In 1998, the City of El Paso issued a request for proposal (RFP) to acquire a new computer information system to replace the antiquated system. However, it ended up awarding a contract to the original software provider to upgrade the existing system. The upgraded system reportedly led to a multitude of problems.

The City decided to do away with the “inter-local” agreement with the County of El Paso and to seek a new computer information system that would specifically address its financial management and human resources requirements in a timely, effective, and efficient manner. In addition, an Application Service Provider (ASP) arrangement was decided upon, to avoid difficulties in staffing associated with low salary levels in local government service being far from competitive in the market for information technology personnel. Moreover, with the exception of user workstations and internal wiring, computer hardware would be owned, operated, and maintained by the ASP entity. Furthermore, the city was to appoint a Chief Information Officer (CIO) who would take overall responsibility for the development, management, and continuous improvement of the information system.

Under the ASP arrangement, the CIO would not have to contend with staffing and hardware acquisition and maintenance concerns, and accordingly would be able to focus on information system development and process improvement.

ENTERPRISE RESOURCE PLANNING SYSTEM
The City issued in September 2000 an RFP for a financial and human resources information system, as well as one for the ASP ar-
rangement. There was no specific reference in the RFP to an ERP system. The intent was to explore the marketplace for a system that would effectively and efficiently address the city’s financial and human resources information requirements. While cost was an important factor due to the city’s limited financial resources, system capability and flexibility carried more weight than the cost.

After reviewing seventeen responses to the RFP, narrowing the selection process down to three vendors, evaluating presentations and software demonstrations, and undertaking site visits to vendors’ existing installations, city officials awarded in March 2001 a contract to PeopleSoft for its ERP solution to the city’s financial and human resources management information requirements. The ASP contract was likewise awarded to PeopleSoft, with the system server residing in an “e-Center” located in Pleasanton, California. Everge, a Dallas-based firm that has worked with PeopleSoft on a number of other projects, was selected to oversee system implementation. Separate contracts for Kronos (a time management reporting system) and CORE (a cash management system) were awarded. The Kronos and CORE systems would operate as peripheral processes, by way of modules allowing each product to interface with the PeopleSoft system.

The total direct project cost—inclusive of the ERP software, the ASP, Kronos, and CORE contracts, and the system implementation contract with Everge, but exclusive of additional hardware for system users—is approximately $6 million. The OMB Director estimates that new personal computers and related hardware for various users within the system will cost another $2 million. It is difficult, however, to specify what portion of this latter amount is allocable to ERP system implementation.

ERP SYSTEM IMPLEMENTATION: STATUS, ISSUES, AND PROBLEMS

An Information Technology Director (the city decided to use this in place of the original CIO title) was hired in May 2001; he moved to El Paso from a smaller city in the Northwest. A steering committee—composed of city officials representing the key business process areas of human resources, budgeting, benefits, purchasing, and finance—was constituted in preparation for system implementation.

Members of the steering committee chair subcommittees assigned to review, modify, and improve current business practices in their particular areas of competence. In early April 2001, a full-time Project Leader, who is based in the OMB, was designated to head an in-house project team (‘‘core team’’) that directly interfaces with the Everge system implementation team. The core team membership included one representative each from Purchasing, Human Resources, Finance, and OMB and two from the IT department. An additional representative from OMB would join the core team when the budgeting module is implemented.

An IT professional with a good number of years of experience implementing PeopleSoft payroll, human resources, and ERP systems projects for various clients heads the Everge implementation team.

Implementation: September – December, 2001

The ERP system was targeted to be operational by September 1, 2001—the start of the city’s fiscal year. Original implementation plans indicated that, as of that date, the following ERP modules would be up and running: general ledger, accounts payable, accounts receivable, purchasing, fixed assets, projects accounting, human resources, payroll, and benefits management. Also planned to be operational by that date was the CORE cash management system. On the other hand, the Kronos time management system was expected to be in place by December 31, 2001, and the budgeting module by February 1, 2002. In particular, the budgeting module was planned for initial use in preparing the budget for the next fiscal year (September 1, 2002 – August 31, 2003).

The financial management modules of the ERP system (general ledger, accounts payable, accounts receivable, purchasing, fixed assets, and project grants accounting) were actually made operational as of September 4, 2001. However, the fixed assets module will not be in full use until the implications of Governmental Accounting Standards Board statement no. 34 (GASB 34), under which municipalities and other nonfederal governmental units are required to move to the accrual basis required for commercial enterprises, are fully understood and appreciated.

Planned introduction of the Kronos time management system was eventually moved up to September 4, 2001. There were, however, problems with the operation of the system, reportedly arising mainly from a significant number of the ‘‘non-exempt’’ employees (comprising about 90% of city employees) improperly swiping their ID cards through the card readers on reporting for and leaving work—even as such employees had been taught how to do so. Accordingly, a parallel run of the old payroll subsystem was in operation for three additional weeks beyond the planned three initial parallel trial runs.

The CORE cash management system was made operational on September 13, 2001. Insurance enrolment information effective as of January 1, 2002 was updated using the ERP system’s benefits management module in the month of November.

Pending Modules

Implementation of the pension module was still pending as of year-end 2001. Planned for implementation in February 2002 is an activity-based costing module. On the other hand, the planned February 2002 implementation of the budgeting module—starting with budget preparation for the 2002-2003 fiscal year—has been postponed to February 2003, applying to the 2003-2004 fiscal year. This postponement will enable the use of a later, Web-based version of the budgeting module. As an interim solution for the 2002-2003 fiscal year, Everge will provide the city with an Excel-based solution.

Other Key Issues and Problems

A number of other key issues and problems have been identified:

- Some members of the core team are not fully dedicated to the ERP project, even as they need to be so (e.g., Fontayne-Mack, 1999; Miranda, 1999). Moreover, the Project Team Leader is not able to exercise proper authority over the core team members, some of whom continue to be on call for other work associated with their home department.
- Some department managers do not assign their ‘‘star’’ performers to take on key user roles in system implementation. The same holds true for personnel assigned to ‘‘train the trainer’’ programs.
- Some department managers do not appear to apply enough pressure on their personnel to ensure that the system is properly used.

REFERENCES


