Writing a Winning ERP Proposal

Enterprise Resource Planning (ERP) Track

Abstract:

Incorporating ERP within an academic program is a significant commitment in time and resources (e.g. money, hardware, software, support) for the ERP vendor and the educational institution. A winning proposal must demonstrate how ERP supports the goals and objectives and the strategic plans for each of the respective parties. This paper examines the factors that the Salem State College's School of Business used to develop a proposal that the ERP vendor recommended as the model for other educational institutions to emulate.

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Introduction

A winning proposal usually requires significant work in advance of proposal submission and a well-developed understanding of how the proposal effort fits the proposing organization. This paper is an account of how an interdisciplinary group of faculty at our public commuter college learned about new enterprise resource planning (ERP) developments and moved to acquire the ability to use them in undergraduate and graduate business school course work. The result has been favorable not only for those taking general and information system courses but also for improving the on-going process of curriculum development.

Others have implemented SAP into their courses well before our school undertook this project. The Sapphire 98 meeting of SAP s University Alliance program offered presentations of the well-established programs at Chico State, Michigan State (Lansing) and others. Publications have described implementation steps at schools that have introduced SAP into their curriculum (Hackworth, 2000, and Lau, Rosaker, and Tracy, 2000). This paper describes the proposal development within our School of Business aimed at SAP, as well as the internal efforts to promote the acceptance of ERP among our faculty.

The paper is organized as follows: Why ERP? describes the process by which we learned of ERP and SAP products; Why SAP? Explains the due diligence that the faculty believed was necessary before settling exclusively on software from one firm; The Project describes the efforts of the team that analyzed the opportunity and the need for ERP coverage in our courses; The Proposal describes the content of the document submitted to SAP; Implementation briefly describes the follow-up activities to implement the project; and Lessons Learned distills the important information, activities, issues, and challenges arising from the project.

Why ERP?

For more than 30 years Salem State College has offered an undergraduate business major, first as a department and since 1987 as a school headed by a dean. We offer BSBA day and evening courses and an evening MBA. Our enrollment is typically 700-1000, or roughly 16-20% of the undergraduate day students, and our course offerings are taught by four departments: Accounting and Finance, Management, Marketing, and Operations Management/MIS. In 1993, we entered candidacy for AACSB accreditation and began a process where we were more actively seeking to improve our curriculum, our responses to student needs, our facilities, and our scholarly activities.

In 1997, some of the faculty noticed that our students were beginning to talk about SAP, a powerful new software application being introduced at a locally-based global manufacturer of lighting products. Some alumni worked there, and many of our current students had either part time jobs or internships there. The SAP software was said to be very advanced, complicated, and costly, but it was attracting the serious efforts of top management, consultants, and accounting and finance professionals during its implementation and ramp up. Other important employers were either considering or implementing SAP software as well. It appeared to the faculty who noticed this fact

that the employers of our brightest and best student graduates were undertaking system upgrades and advances that we knew little about.

Shortly thereafter, in early 1998, an individual faculty member learned about and contacted the SAP University Alliance Program, receiving invitations to the Sapphire 98 trade show to be held in Los Angeles in September. Sapphire 98 was a dazzling show of power within the field of software applications. On the trade show floor, major international accounting, consulting, and implementation firms were represented. The broad coverage and integration of business processes within the software was demonstrated in plenary and discussion sessions. The attraction for faculty trying to improve and better integrate curriculum was strong, provided the concepts embedded in this type of product could be used effectively in class. The implementing companies were frequently global in their operations; the processes handled by the software crossed functional boundaries within business organizations (as well as the departmental boundaries within traditional business schools); successful implementation of the software suites promised improved business responsiveness; and more trained personnel were clearly needed to carry on with the expansion of these kinds of applications.

At the same time, the University Alliance Program offered colleges and universities a structured program of entry to the use of the software that, at reasonable cost to the school, would demonstrate how business processes worked, what processes were necessary, why information was important, how integration benefits record keeping and presentation, and why response time was important. These issues were relevant to our courses. Although we did not want to sponsor or endorse a single firm s products, we felt we needed to cover the ERP field more effectively, and this might require access to some product or products of this sort.

Why SAP?

The presence of SAP motivated us to seek a means to demonstrate and teach ERP principles, but due diligence required us to seek out the best opportunity for our students. Others were operating in this marketplace. PeopleSoft was courting our administration while we sought to know more about SAP. Baan and J.D. Edwards were other brands that we learned of, and Oracle seemed to be both a database program underpinning SAP and an ERP competitor at the same time. Checks with nearby employers revealed that some used SAP, some used PeopleSoft, and the large, nearby lighting products manufacturer used both (SAP for accounting and finance and PeopleSoft for human resource records.) Oracle was in use at our college for records management.

The Project

Because the number of vendors in the market and the roles that they played indicated that further analysis was needed to determine our best course of action, a cross-departmental project team was formed late in the spring, 1999, under the sponsorship of the Dean of the Business School. The project team (a first for our school) was asked to anticipate how ERP might be introduced into our curriculum and to draft a proposal for acquiring any new software and/or hardware that might be

needed. The team consisted of six faculty (one each from marketing, management, and operations management, two from accounting and one from finance), together with an editor and a computer technician from the Dean s staff. The faculty represented all departments within the School of Business and consisted of senior members of the school as well as more recently hired faculty. The editor and tech were included to help with hardware specification and acquisition and proposal writing and in anticipation of training them to run the server(s) and network that would be required if we were successful. We found that, although other vendors were beginning to develop liaison programs with higher education, only SAP had established working relationships with colleges and universities and a structured routine for receiving proposals for the use of their software.

Because the proposal content had been well-defined by SAP in earlier conversations, it was possible to define a work breakdown structure for finishing the proposal and, at the same time, plan the infusion of SAP-based course material into our curriculum. (A unique feature of the SAP program permitted us to attend SAP training sessions while developing our formal proposal.) Team meetings were held once a week during late Spring and throughout the summer of 1999. The team pursued the following scope of work:

> Determine the fit between SAP and our student learning processes.
> Promote buy-in from the rest of the faculty and from higher levels of administration for the SAP project.
> Get familiar with the SAP R/3 by developing and using outside academic and industrial contacts as well as training courses offered by SAP.
> Design SAP-based teaching modules to fit the courses determined above.
> Craft an implementation policy/strategy for startup of the teaching modules.
> Create the proposal and submit it.

Determine the Fit

The capabilities that R/3 provides, impact all of the disciplines and most of the courses we teach. Our capacity for creating and deploying course modules was limited, however, and most faculty not involved on the project team were doing just fine with the course material currently being used. If anything, many faculty did not want more to teach because they were often not getting through the material they set out for their courses. The project needed a way to legitimize the introduction of SAP course modules into already crowded syllabi.

Working from our mission statement and from a collection of the syllabi of courses currently being taught at the School, we were able to target a portfolio of courses in each department that would benefit from exposure to R/3. Backing us up were mission statement excerpts such as:

> We position our students to enter a global economy characterized by rapid technological and organizational change.

SAP certainly offers globe-spanning information gathering capabilities and has promoted heightened awareness of cross-functional corporate processes that are impacted by technological

and organizational change. Most of the course syllabi offered opportunities to incorporate modules on technology and/or information processing that, if we were not too greedy for class time for these modules, might gain broad acceptance from the faculty. Overall, 19 courses were identified for potential incorporation of SAP modules.

Promote Buy-In

Faculty approval for the SAP modules was sought in informal discussions around the halls of the business school. During the Fall-1999 semester, as part of an off-campus faculty curriculum retreat, our project team explained SAP s University Alliance Program, answered questions and obtained formal approval from our colleagues to proceed. We believe this highly interactive discussion with faculty was vitally important, because many faculty have legitimate concerns about the viability and desirability of participation in the program. Commitment from administration was sought in specific meetings between the School Dean and higher administration and in meetings of our Business Advisory Board where presentations about the SAP project were made.

Get Familiar with SAP R/3

Beginning in the Summer of 1999, Faculty and technical support staff participated in formal training. Some of this was provided at SAP training facilities (as part of our contractual agreement with SAP), and some, paid for out-of-pocket, helped support staff gain the knowledge and skills necessary to work with our database software. Our project team also spent a day meeting with the VP of Information technology, an SAP R/3 software programmer and a financial accountant at the large lighting products manufacturer to learn about one company s experience using an ERP system, and to solicit advice regarding what we should be attempting to teach at our particular school.

Design Modules

During the Summer-2000 time-period, faculty on the project team were given a stipend and charged with developing course modules for use during the Fall-2000 semester. We began by gathering course syllabi and talking to faculty to determine pre-existing course objectives. Next we brainstormed ways in which SAP presentations could help accomplish those objectives. Finally, based on this analysis, we prepared a detailed list of SAP module objectives that served as the basis for developing each course presentation and exercises. A letter of understanding between Salem State and SAP was signed in May, 1999, permitting us to attend a limited number of training sessions to familiarize our team with the operations of R/3. Using knowledge gathered from this training and a complete review of our course syllabi, the team targeted specific courses and drafted proposed modules for those courses. The training sessions were invaluable in this regard because we could model our units after the training session exercises and get comparable results.

Develop an Implementation Policy/Strategy

Because we did not have the capacity to simultaneously introduce relevant modules into all courses identified as potential users of SAP modules, we chose to target course introductions on a sequential basis, starting from the earliest courses that a business student would take and moving into higher level courses later. Although this would not benefit our immediately graduating seniors, we felt that it would provide a more sound and complete basis for our students in the long run.

Within any course selected to receive an SAP module, the philosophy was to design short exercises that would illustrate concepts already being taught.

Create the Proposal
Once we had decided on our introductory courses and modules, it became a straightforward exercise to write the proposal for submission.

The Proposal

The proposal was written to explain what, to us, was a simple and sound approach to implementing SAP exercises into our curriculum. In the short run, we would acquire a server and the software, gain training to enable us to run it, and teach our modules in a selected few courses at the beginner end of the curriculum. Over a longer time frame, we would Phase in modules to successively higher level courses, while trouble shooting and improving modules already being used. Complete phase-in time was planned for three academic years, with the Fall semester of each year used for introducing new modules and the Spring semester used for revisions, troubleshooting, and improvements. The complete proposal is available on our website (www.business.salemstate.edu/SAP.)

Implementation:

Consistent with our proposal, we began by developing and offering SAP modules in all sections of the following courses during the Fall-2000 semester:

(1)	BUS 170	Introduction to Business	(undergraduate)
(2)	ACC106	Financial Accounting	(undergraduate)
(3)	ACC703	Financial & Managerial Accounting	(graduate)
(4)	MKT790	Marketing Decision Making	(graduate)

The Introduction to Business course is the first business course and is required of all business students. It serves as a foundations course which spans and integrates business disciplines and processes and upon which all later courses build. The primary objectives for the SAP module in this course were for students to learn what ERP systems are and how companies can benefit from their use, as well as to provide hands-on exercises demonstrating log-on procedures and basic navigation principles.

The Financial Accounting course, generally taken at the beginning of the sophomore year, is also required for all business students. Our basic objectives, here, were the same as for the Introduction to Business course, except that we added exercises allowing students to create a customer, record a sale to that customer, view a chart of accounts, look at various versions of financial statements (year-to-year comparisons, budget versus actual, etc.), and perform some other functions relating more specifically to accounting topics.

The Financial & Managerial Accounting course is one of the first courses required of all MBA students at the Salem State. Once again the objectives and exercises were similar to those for the two undergraduate courses.

Marketing Decision Making, a first course for MBA s did not run due to low enrollment.

We assessed the outcomes of our Fall, 2000, course modules by means of student surveys and end-of-semester meetings with faculty. Students appear to have been broadly enthusiastic about the introduction of SAP modules, and we are incorporating indicated improvements for the Spring-2001 semester course offerings. During the next three academic years, we plan to follow this same procedure, implementing course modules in a sequence roughly patterned after the order in which students take courses in our program. Because many of our students transfer to our program at various stages in their academic careers, we expect there may be some gaps and some overlaps in course presentations, but we also plan to develop independent presentation material and exercises that will permit students to make up any gaps that they experience.

Lessons Learned

Many lessons have been learned from our participation in this project. Some relate specifically to the project, itself, but some are of a more general nature. The establishment, for the first time in our school of a multidisciplinary project team has demonstrated the effectiveness of this approach. Within the team, observations and data on the strengths and weaknesses of our overall program have come more fully into view.

The impetus for this project came from industry, which often leads academic research on the next advances in practice or strategy. For us it paid off to stay in touch with the practitioners through alumni and other links because these sources started us out on a valuable new journey into the use of ERP in class. Faculty research on this topic is only now getting started.

ERP software tracks cross-functional business processes. It therefore lends itself to multi-disciplinary instruction and examination of the links required between diverse parts of a business organization. Instruction based upon this should give our students a broader perspective on their business life.

The existence of a mission statement that had been developed and adopted by the faculty helped promote acceptance of the SAP project within the school.

Although ERP is a huge subject that impacts many courses within a business program, the school only has limited capacity to impact courses, initially. Limited staff, other projects competing for time and commitment, previously overloaded course syllabi, and inability to learn the new subject immediately all conspire to require a limited approach to the introduction of simpler concepts before broadcasting the new subject widely across the curriculum. Effective change can

only be made at a controlled and deliberate pace.

The tremendous scope and complexity of R/3 requires a strong commitment from the implementing faculty and staff. Installing and learning how to run a large new server were not trivial tasks. Special training was required of our technician. Keeping up with the nuances of the software interfaces in the student labs and on the faculty desktops, allocating random access memory, optimizing the setup for transaction response time and reliability, and setting up remote access for faculty and multiple access for students has stretched the skills and availability of our technician considerably.

However, the whole effort has been a very positive learning experience for all of us.

References:

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