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Making Business Education Relevant: Using SAP to Support IS Education

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Abstract:
To make the teaching of information systems and technology in business schools more relevant for today's technology-enhanced business community, we joined the SAP University Alliance and have begun using their materials and exercises in all of our existing MIS courses and are using SAP in the fall 2012 term in a new course about enterprise-wide systems. Here we discuss the decision process for joining the SAP University Alliance, our proposal to fund this initiative, our implementation of the initiative, and the issues that we faced and face going forward.

Keywords: ERP, SAP, tools, hands-on, exercises, relevance, enterprise-wide systems

I. INTRODUCTION

Management information systems (MIS) faces some challenges as a discipline: research needs to be more relevant to practice (Benbasat & Zmud, 1999; Davenport & Markus, 1999; Gill & Bhattacherjee, 2009), and curriculum should be more responsive to practice (Danko, 2009; Ghobadian, 2005). One example that information systems (IS) curricula may not be responsive to practice is reflected in the typical textbook written for the entry level IS class. These textbooks cover the same or similar topics as ten years ago; however, technology evolves quickly, today's students are more familiar with information technology (IT) than previous generations. Yet the textbook and curricula have not changed at the same rate.

When IS research becomes distant from practice and curriculum does not correspond with practice, the contributions of IS as a discipline to management practice and teaching are greatly undermined, and this threatens our very survival as a discipline. According to Gill and Bhattacherjee (2009), two of the top 10 MIS departments ranked by research productivity merged with other departments. A study by Shore and Briggs (2007) found that not one of the top 20 U.S. MBA programs (based on Business Week's rankings) had an MIS course in its required core curriculum. The signal is clear: MIS is not viewed as an independent discipline, at least when the economy is not good, and MIS is not as important as other disciplines for business managers' education in disciplines such as accounting, finance, and business administration. When information technology and information systems have already become an integral part of operation and management for any non-trivial organization, this omission of IS in MBA education may reveal that people perceive low value from IS courses.

One way to increase the value of our courses is to make teaching more relevant to practice. This is also the call of AACSB's report, "Globalization of Management Education" (2011), which identified several trends of business education in the past decade: globalization is one of the

trends; in addition, business education is expected to be much more customer-focused and entrepreneurial. Customer-focused means that those offering business education need to meet the needs of practice.

II. ONE SCHOOL'S PLAN TO MEET THESE NEEDS

Our business school has faced the same enrollment challenges other business schools have faced and addressed in the last ten years. We have had declining enrollment in the MIS major while facing the contrasting challenge of remaining up-to-date, not only for our students' purposes, but also to meet the needs of local employers who hire our students.

For our school, the pressure to meet local needs is high. We have a business community that is highly involved at our school; they support the school financially, they provide guest speakers for classes and student groups, they work closely with our career development centre, and they are quite vocal about their needs. We identified one of the important local employer needs: most of our province's largest employers have started to use SAP or will start to use SAP soon.

To manage complex business processes in today's multi-facility, multi-national business environment, these firms need to use integrated software packages. Most local large employers are moving away from homegrown solutions to enterprise requirements planning (ERP) systems, and most are implementing SAP. They need graduates who understand both business processes and the ERP software that supports these processes. ERP systems in general are incredibly complex, general-purpose software packages with capabilities to support a wide variety of companies and industries. As a result, they must be configured to support the organizational structures and business processes of a particular company to efficiently and effectively manage the firm's business processes.

In the past year, we began talking with an SAP representative about how a business school could gain access to SAP for its students. We discovered that times had changed, and the cost of the SAP license acquired as part of joining SAP's University Alliance Program (UAP) had dropped significantly, which makes joining the SAP UAP financially feasible. At the same time as we were investigating the UAP, the province's chief information officer called a meeting of some of those interested in promoting SAP throughout the province, a group that included provincial staff, the consulting unit for an international accounting firm, and local business people. This group met to discuss how to find, hire, and train staff to use SAP. Two of our MIS faculty members attended the meeting.

We then met with the province's CIO again and with the Deputy Minister to whom she reports. All people who attended these meetings were enthusiastic about our idea of joining the SAP UAP; they discussed the large number of local companies and provincial entities that are using SAP and in essence assured us that all of our business students would be more marketable with hands-on SAP experience. In addition, several of the people at the first meeting were organizing an SAP Industry Steering Committee to share challenges related to implementing SAP and training employees in its use and to promote the use of SAP throughout the province. These meetings convinced us that it was the right time to join the UAP due to the growth in both governmental and industry use of SAP throughout the province.

We next contacted the Computer Science Department on campus to determine if they would like to join us in this initiative to join the SAP UAP. The SAP UAP can be used by the entire university and not just one unit, so we hoped that they would join us. They politely declined for reasons that were never fully explained to us. This meant, of course, that the entirety of funding would have to come from the business school (the provincial government does not have funding for this type of initiative, and university regulations prevent companies from funding this type of initiative without development office involvement).

It should be pointed out here that a number of academics believe that working closely with a specific organization can lead to violation of academic independence and integrity. Whether this belief influenced the computer science department or not, we do not know, but on our campus, this type of discussion occurs frequently. Nonetheless, our belief was that Microsoft Office products are not only used on our campus, but also taught in our classroom, but we have never heard other academics speak against the use and teaching of the leading office product suite. We, therefore, believe that partnering with SAP, the leading enterprise-wide software in the world, was similar and believe that it does not lead to violating academic independence and integrity.

III. THE SAP UAP INITIATIVE PROPOSAL

Our next step was writing the proposal to the Dean to fund the initiative. We used some of SAP's materials, along with quotes from industry and provincial leaders with whom we had met, to develop the proposal. We also sought out support from other faculty members and received support from individual faculty members in our marketing and supply chain departments.

The financial part of the proposal was the easiest to write but the hardest to sell. SAP's license hosting requires an $8000 (in US dollars) plus taxes annual licensing fee. Our MIS faculty at the least would need to take one of SAP's UAP workshops offered for free during the summer; unfortunately, while the workshop is free to UAP members, travel, housing, food, etc. costs are not free. We estimated $2000 per faculty member, with three faculty members in attendance the first year and two each year after that. The total cost of our proposal was $14000 for the first year, and $12000 for succeeding years, all in US dollars.

We were fortunate that our dean believed in what we were doing, and after discussing our proposal with the associate deans and school budget officer, he approved funding from his office for a period of three years. Then the typical university bureaucracy took over.

IV. IMPLEMENTATION OF THE SAP UAP

Four months later, after many hours of legal fees on the part of both the university (which insisted on modifying SAP's typical contract) and SAP (which had to ratify or decline each modification), the contract between SAP and our university was approved.

Two MIS faculty attended the traditional week-long Introduction to SAP workshop in the summer of 2011. This workshop included hands-on instruction and a lot of opportunities to ask questions, not only about the software itself but also about the UAP. These faculty members were to implement SAP into the introductory MIS class beginning in the fall of 2011. One faculty member took charge of creating the laboratory sessions for the course using SAP's own workshop and online materials.

The entire course had to be restructured to permit four classes to be dedicated to SAP instruction. We added the topic of business processes (BP) to existing entry-level classes. We reserved several classes for students to do SAP exercises in the computer lab. We selected exercises that would teach order placement, credit risk management, and procurement. Students followed step-by-step tutorials that the SAP University Alliance had developed, and at the end of the exercises, we gave a hands-on quiz that reviewed their lab work to date.

We have also added a new higher-level course just for business process education in the Fall 2012 term. This course gives students hands-on experience configuring an SAP system. In the first half of the course, each student will follow detailed instructions provided by the SAP University Alliance to configure the SAP ERP system to support the main business processes for the fictional Fitter Snacker Company described in *Concepts in Enterprise Resource Planning (*Monk & Wagner, 2012).

In the second half of the course, students configure an SAP ERP system to support the business processes of the fictional Marshall Muffler Company using basic data provided by the SAP University Alliance. The configuration does not customize the software for a particular organization; instead it sets up the parameters for the SAP operation; therefore, the configuration does not involve coding, but instead, it involves students' in-depth understanding of the integrated nature of business processes in general. Midway through the term, the materials provided by the SAP University Alliance appear to be sufficient for the configuration project.

V. FACTORS FOR SUCCESS

Looking back, we see that there were three factors that made our development and implementation of this initiative successful. These factors involve commitment and persistence on the part of all parties, including SAP, the university, the business school, and the MIS faculty. These factors are:

1. Project champion. As with many initiatives (and as strategic research has also found), it takes a champion to move an initiative forward. The faculty member who had championed and pushed the initiative to fruition also took charge of developing the SAP assignments for the lab sessions. She assisted the other faculty members in presenting the labs for their course sections. She continues to stay in touch with SAP and to suggest changes that we may want to implement. In addition, in response to industry feedback, she is teaching our elective course in enterprise-wide systems, using SAP as the tool to learn how important these systems are and how to use them.
2. The support from SAP's University Alliance Program was unfailing. We asked questions and needed coaching to see that our proposal was strong and met with SAP's requirements.
3. The support from industry strengthened our proposal and made clear the need for business education to include experience with enterprise-wide systems. Without that support, we would not have received approval or funding.

VI. CHALLENGES AHEAD

There are, of course, continuing challenges in running this program. First, we only have funding for three years; we are starting our second year this fall. Previously, our business school had a full-time development officer with whom we had met and who understood the need to raise the funds for this and several other initiatives that were going to be tied together for funding purposes. The school no longer has a full-time development officer and progress on funding for the UAP does not appear to be a priority. The school has a new dean, and we hope to meet with him in the coming term to determine what he would like us to do to secure more permanent funding.

Second, keeping faculty up-to-date means ongoing training at SAP workshops. This year, only one of us attended an SAP workshop, but next year, we will all need to attend to continue to increase our SAP skillset. This takes time, which is also difficult to obtain, as is the funding to go to the workshops. Third, there are so many things that we could do with SAP software and the sample data provided by SAP UAP, we need to take a lot of time to become familiar with the software and the sample data, so that our teaching can take full advantage of the UAP. Fourth, we would like other disciplines to use SAP, such as finance and accounting; however, motivating faculty members in other disciplines to use SAP is not an easy job.

VII. CONCLUSION

All too often, faculty members hear students complain that what they are being taught is not relevant to the jobs they will take upon graduation. In this case, initial informal student feedback after the SAP laboratory classes ended confirmed that they learned a lot, that what they learned was relevant, and that they enjoyed the laboratory classes. Similarly, faculty members hear industry representatives complain that the students they hire do not have the hands-on experience needed by industry. This is the reason we feel the SAP UAP program is an important component, not only of an MIS education, but also a business education.

Relevance is a necessary part of education, and the use of SAP by students in a laboratory setting makes the concept of enterprise-wide systems relevant, satisfying both students and their potential employers simultaneously. When potential employers are also supporters of the business school, the use of SAP in the classroom becomes relevant to the reputation of the school and its reputation as well. We look forward to addressing the challenges listed above in the next two years.

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