

Teaching Tip

A Project Module of E-Commerce Planning

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ABSTRACT

The development of a pedagogy that integrates scholastic knowledge and practical skills of e-commerce for business students is imperative. Students typically learn e-commerce planning through course projects. This note provides tips for designing and teaching an e-commerce planning project module for the e-commerce course.

Keywords: Electronic commerce, course project, business planning, clinical approach

1. INTRODUCTION

E-commerce courses have been popular in business schools for more than seven years. E-commerce is the process of buying, selling, exchanging products, services, and information via computer networks (Turban and King 2003; Turban *et al.* 2004). Given the breadth of the subject, it is natural that there are a variety of approaches to teaching/learning e-commerce. Yet, they can be placed in two major categories: instructive and clinical.

In the instructive approach, students typically learn e-commerce concepts, a variety of new business models (e.g., revenue models and e-government models), and issues related to e-commerce (e.g., ethics issues and legal issues). Students get a general overview of e-commerce, perhaps practice e-commerce simulations, participate classroom case studies (Landon and Travers 2003; Schneider 2004), and/or learn the techniques of e-commerce implementation (Chopoorian and Wang 2004). However, in this approach it is not intended that students acquire first-hand experiences in e-commerce planning. When students learn e-commerce from lectures, they often remember little more than lists of buzzwords. On the other hand, in the clinical approach,

students go out, find organizations, identify e-commerce opportunities for the organizations, determine e-commerce strategies for them, and initiate e-commerce business plans. Commonly, courses taught in the clinical approach are called project courses. The teaching philosophy of project courses is that people cannot learn without doing (Wang and Ariguzo 2004).

Given the restricted number of business elective courses in the AACSB curricula for business majors, it is ideal to have a single e-commerce course that integrates the two approaches. However, there are few textbooks that provide business students with guidelines for practical e-commerce projects. Teaching methods for e-commerce course projects are scarce in the IS education literature. This note describes design concepts for an e-commerce planning project module of an upper-level e-commerce course for undergraduate business majors and tips for teaching this module.

2. DESIGNING THE PROJECT MODULE

The objectives of the project module is to learn e-commerce planning, including strategy formulation, e-commerce implementation recommendations, and cost/benefit

analysis, from a real case based on a local organization. Although students are expected to learn the broad foundation of e-commerce from the course, this project module is not aimed to technical Web application design, simple Web presence, or perceptive Web sites usability assessment.

Besides common difficult tasks in designing a project module, such as scheduling a feasible timetable, specifying project requirements for e-commerce projects is particularly challenging, given the variety of prospective topics of e-commerce planning. One set of requirements is unlikely to fit all categories of project themes. Based on our experiences of teaching this e-commerce project module in the past years, we have developed four sets of requirements for the four typical categories of e-commerce planning projects: catalog sales, B2B e-commerce, e-government, and virtual community. The primary themes and the general requirements for the four categories of e-commerce planning projects are summarized below.

2.1 Catalog Sales.

The project is to plan an online store for a firm to sale its products on the Internet. The project shall

1. Determine the catalog sales strategies for the firm, e.g., reach more customers and increase sales, lower transaction costs, and/or flexible work hours;
2. Develop and evaluate alternatives, e.g., build your own online store, apply for a Web host, or subscribe the eBay store or Yahoo Store;
3. Prepare cost/benefit comparison of the alternatives and recommendations;
4. Describe the steps to set up the online store, e.g., purchase domain name, purchase Web hosting, site implementation (hardware and software), security, payment options, and delivery arrangement;
5. Propose banner advertising/exchange; and
6. Prepare three-year prediction of cash flow.

2.2 B2B E-Commerce

The project is to plan a Web-based business network to improve the cooperation of the business partners. The project report must include

1. Current issues of the business network;
2. The B2B E-commerce strategy, e.g., business alliance, lower transaction costs, improve the partner relationships, timely communication, share information, and speed cash flows;
3. The e-commerce model, e.g., the supply chain, purchasing and logistics (shown in workflow diagrams), fund transfer, and /or partner relationship management;
4. Alternatives, e.g., build the e-business network on the common host, or expand the current network and build an extranet;
5. Cost/benefit analysis, e.g., the distribution of costs and benefits among the business partners; and
6. Steps to the implementation, e.g., purchase a host, implement the e-commerce network (hardware and software), set fund transfer accounts, and set conversion coordination.

2.3 E-Government

The project is to plan an online government service for a town, city, or department of the state government. The project report must include

1. Issues of the current system;
2. The e-government strategy, e.g., improve image, save, provide better service to citizens, and/or comply with the higher-level government's requirements;
3. The business model, e.g., online bill payment (shown in workflow diagrams), or online government auctions;
4. Alternatives, e.g., in-house development, or outsourcing;
5. Cost/benefit analysis, e.g., government expenses, individual expenses, and social benefit; and
6. Steps to the implementation, e.g., call for bid for outsourcing, or site implementation (hardware and software) for in-house development, security, and payment options.

2.4 Virtual Community

The project is to plan a virtual community on the Internet to improve the relationships among a group of people with common interest. The project shall

1. Identify the common needs of the people in the virtual community;
2. Determine the virtual community strategy, e.g., promote the identity, social interaction, customer loyalty, sponsorships and payback, and rewards;
3. Specify the business model, e.g., virtual salon, chat room, and CRM (customer relationship management);
4. Develop and evaluation alternatives, e.g., expand the current Web site of the host organization, or build a new Web site/portal, and alternative software packages;
5. Prepare cost/benefit analysis, e.g., development costs, and commercial values for beneficiaries; and
6. Describe the steps to the implementation, e.g., purchase domain name and a Web host, site implementation (hardware and software), policies, ethics code, and coordination.

3. TEACHING STRATEGIES

An e-commerce planning project is typically conducted by two or three students as a team. The project module starts after the first three weeks of lectures for introduction to e-commerce. It constitutes 45% of the course evaluation weights. The typical class size for this module is around 25. The project module begins with project proposals, moves through class discussions, and ends with class presentations. We have used four strategies of teaching this module, as discussed below.

3.1 Promote Diversified E-Commerce Topics

Based on their day-to-day experiences, students often regard online catalog sales more than any other types of e-commerce topics. This may bring about potential jeopardy for the class, as many groups might choose the same topic for the projects. To expose the class to other types of e-commerce models, the instructor must promote diversified the project themes and balance the four typical topics for the class. In any cases, the project proposal stage is critical,

which expects the instructor to open students' mind to search diversified e-commerce project topics for the class.

3.2 Maintain Continuous Progress

After the project module starts, about one third class time of the course is devoted to class discussion for the projects. In the proposal stage, a couple of discussion sessions are spent for brain storming to allow students to identify interesting project topics for their groups and develop the vision for the e-commerce planning projects. After the proposal phase, each group reports its progress towards the project requirements on the weekly basis. The instructor shall offer suggestions to individual groups on their tasks in the subsequent week. This teaching method helps to build bond between the instructor and students, and provides a mechanism of quality control for the projects.

3.3 Reach Practical Solutions

This project module is to teach e-commerce beyond theoretical frameworks, a dictionary of buzzwords, and textbook stories. It allows the instructor to disseminate knowledge through handling real-world cases, and encourage students to further exercise. For instance, the textbook can never tell how to apply for a merchant account for charging credit cards, where one can find a free/low-cost Web host, or what an off-the-shelf software package for CRM is about. The instructor shall provide pointers to those practical solutions, and demand students to further explore the Internet. This teaching method invites students to develop their problem-solving skills.

3.4 Engage Students in Learning Peer Projects

Students are encouraged to learn e-commerce planning from other groups' projects in order to understand various types of e-commerce firms. They are supposed to offer their suggestions and contributions for the peer projects during the class discussion sessions. They are also supposed to act as the management and evaluate the peer projects. Each student is required to submit a projects auditing report at the end of the class to explain what he/she has learned from each peer project, including

1. Brief descriptions of the projects;
2. Strength and weakness of the project;
3. E-commerce planning skills of the group;
4. Quality of the group presentation; and
5. Overall merit (in a 5-point scale) of the project.

4. FINDINGS AND CONCLUSION

The overall student evaluation score of the e-commerce course with this project module was 4.51 on a 5-point scale. Indeed, this score is the record of our e-commerce course over the past years. Certainly, students gain much positive learning experiences from the project module. The students' written comments on this project module clearly indicate that students can learn practical skills beyond the textbooks for e-commerce planning, including e-commerce strategy formulation, feasibility study, and implementation preparation.

The progressive nature of the clinical teaching/learning approach shall accommodate differing levels of preparation for learning and sets the stage for students to progress to advanced levels on their own. Our design of e-commerce planning projects is far from mature, and is subject to revision and expansion in the coming years. Specifically, we are in search of more practicable categories of e-commerce planning projects for the module. We conclude that this project module integrated with instructive aspects into a single e-commerce course is useful and feasible.

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