

Management Information Systems

Mexico City EMBA Program

Spring 2010

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Course Objectives

Information technology (IT) has the potential to change the landscape of global competition, increase productivity, change industry structure, make markets more efficient, and alter a firm's boundary and competitive position. While IT can provide competitive advantage, it has, in many cases, become a strategic necessity. It is no wonder that more than \$2 trillion is invested in IT each year on a worldwide basis, which is over 50% of all capital expenditures. Given the level of investments and the importance of IT, it is imperative that forward-thinking managers understand the process of using information and evaluating, assimilating, and managing IT within products, services and all value activities of a firm for operational efficiency, and business partner and strategic values. Managers need to be able to articulate the impact of IT products and services at the firm, industry and economy levels, so that investments are meaningful and productive.

However, the bursting of stock market bubble, decline in IT investments, increase in well-publicized bankruptcies, and the significant gap between the promise and the perceived benefits of IT have led skeptics to question the economic contribution of IT. The skepticism is not bad in itself, since it raises numerous questions involving how IT can provide cost leadership, differentiation and/or strategic benefits. The true benefits of IT can be realized only when organizations exploit certain characteristics of IT, and align business processes, incentives and partner (e.g., customers and suppliers) readiness with IT capabilities.

This course is designed to provide students frameworks and analytical tools to understand the economic and strategic implications of IT, transformation dynamics, and risks and pitfalls of IT decisions. The course will address many issues that are of interest to all managers including (a) identifying the characteristics of IT innovation and their implications

on firm IT adoption; (b) understanding IT and the Internet contributions to economic growth; (c) evaluating the strategic implications of IT; (d) developing a framework for electronic business transformation; (e) exploring emerging IT-driven business practices (e.g., supply chain management, customer relationship management, and enterprise resource planning); and (c) developing frameworks for IT investment justification.

Course Themes

Theme I: Firm and industry transformation enabled by IT

Theme II: Strategy & economics of IT -- IT as a driver of strategies, the fit between technology and business strategies, IT-induced changes in firm boundaries, leveraging IT for cost and value leadership, IT and switching costs, integrating into business partners' value networks, IT enabled new business models, etc.

Theme III: Justifying IT decisions: ROI, risk assessment, options approach to IT investments

Theme IV: Leveraging customer knowledge in a digital world

Required Book

Information Rules: A Strategic Guide to the Network Economy
 by Carl Shapiro and Hal R. Varian
 Harvard Business School Press 1998
 ISBN 10: 087584863X / 0-87584-863-X, ISBN 13: 9780875848631

Other Required Course Material

1. Readings packet
2. Additional material will be posted on the Blackboard

Grading

80% of your course grade will be based on the Professor Barua's section, while the remaining 20% will be assigned by Prof. A. Capote.

ITEM (Barua's section)	Date (month/day)	Weight in the final grade
1 Group Project (case competition)	April 17	15%

2 Individual Case Write-ups	Feb 13 & 27	25%
Take home final exam	TBA	30%
Course/class participation		10%

A grade of X (incomplete) is very uncommon and will be given only for unusual circumstances (e.g., documented medical emergencies for you or your immediate family members). You are required to provide sufficient evidence of the problem and notify me as soon as it occurs. **NOTE:** A student receiving an incomplete grade in the course is required to complete such work by the end of the next academic session.

Class Participation

In this class much of the learning is dependent on the accessing the combined knowledge and experience of the group. It is everyone’s job to keep the discussion productive and moving forward. In evaluating your class participation grade, I take the following into consideration:

- useful arguments expressed coherently and succinctly
- good analysis supported by case facts or your own experience
- relevance to previous contributions, i.e. ability to listen and build on what others say
- constructive disagreement
- regard, respect and acknowledgment of others’ contributions
- readiness to contribute to class discussions

Case Reports

Several cases will be discussed during the semester. For Professor Barua’s section, you are individually responsible for 2 case study write-ups, about 4 pages each, 12 font size, single spaced, due at the beginning of class on the day of the case discussion. Late submissions will not be accepted. The objective of these assignments is to help you prepare for the case discussion, and to maximize the value of the case discussion for the entire class. A set of questions for each case will be handed out in class two weeks in advance. Your write-up should address the questions based on the facts discussed in the case, and your own research through other sources. Case write-ups will be evaluated on the accuracy and details of facts, analysis and clarity of arguments.

There will be a case competition on the last day of class, where student groups (4 students per group, you are responsible for forming your own groups) will present their analysis of the “RFID at the METRO Group” case. Each presentation should last no longer than 20 minutes and should use PowerPoint slides. A certificate will be awarded to each member of the winning and runner-up teams.

The three cases are:

1. Feb 13: “Hewlett-Packard” (individual)
2. Feb 27: “B&K Distributors” (individual)
3. April 17: “RFID at the Metro Group” (Case competition: Group work + in-class presentation)

Hewlett-Packard Case Study Questions (due Feb 13)

1. The case mentions several times HP’s desire to be more customer focused. According to the case, what has HP done to become more customer focused? Have they achieved this objective? Justify your response.
2. Ms. Carly Fiorina wanted HP to be a unique combination of high tech, low price, and superior customer experience. Visit the HP web site as well as that of one of its key competitors and configure a custom PC. Based on your visits, do you agree that HP has achieved the above combination in its online PC business? Please justify your response.
3. If HP could operate with the same efficiency as its closest competitor, what would be the \$ impact on its bottom line? That is, how much money could it save by being as efficient as its closest competitor, everything else being equal?
4. If you were running HP’s PC business, what additional steps would you take with respect to (i) distribution channels and interactions with customers, (ii) supplier side operations? In this question, assume that the company as a whole has decided not to quit the PC business.

Guidelines for writing the case report

A. Time management: For folks who have no exposure to the high tech sector, this case study should take between 8 to 9 hours. If you are not done after 9 hours of solid work, you are spending too much time on it, and need to talk to me immediately. For folks who have some experience in the high tech sector this study should consume 5 to 6 hours (the maximum time guesstimates provided below are for those without any prior exposure to high tech). Try to divide up the work across several days, working no more than 1 to 2 hours on this per day.

B. Start by reading the questions carefully. Then read the case slowly and thoroughly, and take notes on your computer as you go. For example, question 1 can be answered completely by reading the case. Reading the case thoroughly and answering question 1 should not take more than 2 hours.

C. Visit the company web sites – to answer question 2, visit HP and a close competitor’s web site – note the ease of navigation, friendliness, and informativeness of the site (a part of the customer

experience). Configure a PC with roughly the same configuration on HP and its major competitor's site. What difference do you see in terms of price, selection, availability and speed of delivery? This should not take more than 1 hour.

D. For question 3, we are looking for some numbers. Focus on the cash conversion cycle comparisons between HP and its closest rival in the PC industry. A related article is provided below. Should not take more than 1.5 hours.

<http://www.fastcompany.com/magazine/88/dell.html>

E. Your answer to question 4 should be based on all of the above. Look at the inefficiencies you observed in your answer to question 3, and your impressions of HP's web site and what they have done on the customer side (from questions 1 & 2). This should not take more than 1 hour.

F. Take up to 2 hours to revise the points you noted while doing the above in order to complete the report.

G. Please answer the four questions separately instead of providing an integrated analysis. In doing so, there may be a slight overlap between answers to some questions, but that is O.K.

H. I am looking for key points in your analysis. So there is no need to spend a lot of time framing sentences and paragraphs (even bullet points with enough explanation will do). However, your responses should be structured well, so that there is a logical flow of ideas and rationale.

I. Avoid repeating facts mentioned in the case – I am looking for your *analysis* and *conclusions*, and not the replications of facts from the case.

J. You are individually responsible for this case study write-up. It should be about 4 pages (12 font size, single spaced), and is due at the beginning of class on the day of the case discussion. Late submissions will be rejected. If you are unable to make it to class for some reason, please email me the report before class time.

Course Agenda

Date/time	Topic	Readings
Jan 15/16	<p>Introduction to Information Technology Management: Strategic and economic perspectives</p> <p>Overview of IT impacts</p>	<ul style="list-style-type: none"> • A. Barua and P. Konana, Chapter 1 (“IT-Enabled Transformation”) in the readings packet.
Feb 12/13	<p>IT & Competitive Advantage</p> <p>IT-Enabled Structural Transformation, IT & Competitive Advantage</p> <p>Network effects & switching cost</p> <p>Case Study: “Hewlett Packard” (readings packet, case study section)</p>	<ul style="list-style-type: none"> • Porter, “Strategy and the Internet” (in the readings packet) • A. Barua & P. Konana, Chapter 3 (“Strategic Aspects of IT”), readings packet • Millar and Porter, “How information gives you competitive advantage” readings packet • Shapiro and Varian, Chapters 5, 6 and 7 • Hewlett-Packard case report (individual work, hard copy preferred) due at the beginning of class on Feb 13

<p>February 20 (1/2 day)</p>	<p>IT ROI Assessment IT Options</p>	<ul style="list-style-type: none"> • Pittsburgh Wire and Cable (will be posted on Blackboard) • R. Gold, "Building the IT Organization Balanced Scorecard" • R. Gold, "Follow the Money: IT Finance and Strategic Alignment" • Dixit and Pindyck, "The Options Approach to Capital Investment" HBS Product # 95303.
<p>Feb 27 (1/2 day)</p>	<p>IT Options (continued) Managing large IT Projects: The case of ERP Case study "B&K Distributors"</p>	<ul style="list-style-type: none"> • R.G. Fichman, M. Keil and A. Tiwana, "Beyond Valuation: Options Thinking in IT Project Management," California Management Review, February 2005. • Case study write-up due electronically (on the Blackboard) by the beginning of class.
<p>April 17 (all day)</p>	<p>Web 2.0, social networks and new business paradigms Case competition: "RFID at METRO"</p>	<ul style="list-style-type: none"> • Readings TBA • Student groups (4 students per group) will present their analysis of the case in class. Submit an Excel file + PowerPoint file on the Blackboard by the beginning of class.
<p>TBA</p>	<p>Take home final exam worth 30% of final grade</p>	