Case Studies in Operating Systems and Global Marketing

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Abstract

Case studies were done at MBA programs of Harvard University, Cranfield University, Thunderbird University and others for 30+ years. It is also a good practice to use case studies for undergraduate degree programs. But for the Operating Systems or Global Marketing, there were few case studies in the literature.

At University of Phoenix, an introductory course in Operating Systems was taught. Project Risk Management courses were given at New Jersey Institute Technology. At Dominican College, International Management and Global Marketing were offered. Doing case studies in these coursesprovided a sounddevelopment for critical thinking, communications, interpersonal, leadership, public speakingand team building skills. Student reviews were good to excellent. This paper gives the summary.

Keyword: Operating Systems, UNIX, Linux, Windows, iOS, Android, Project Manager, Global Marketing, International Management, Real-World Case Studies

(A) Dominican College*

Dominican College is located 14 miles northwest of New York City. Donald Hsu joined Dominican College in 1988 as an Associate Professor in the Business Division. In Fall Semester of 2014, the College enrolled 2100+ students. The Business Division offers Bachelor of Science programs in Accounting, Computer Information Systems (CIS), and four concentrations of management: Financial Management, Management Information Systems (MIS), International Management (IM), and Marketing Management (MK). A Master's Degree in Business Administration (MBA) was approved by the State of NewYork in 2008. Hsu served as the Director of Business Administration Division from 1990 to 1996, and taught courses in CIS, MIS and IM curriculum.

1. MG 355 International Management

In Fall Semester 2014, 20 students enrolled. This course aims to investigate specific issues in the governance of multinational enterprises. Topics include: foundations for international management, managing across cultures, strategic planning, managing political risks, organizing operations, decision making controlling, personnel selection repatriation, training organization development, labor relations, communications, motivating human resources, ethics and social responsibility.

Deresky (2013) wrote the textbook. Accounting, finance, toxic mortgages, corporate social responsibility, ethics, human resource, managing culture, marketing, merger/acquisition, and operations, with an international focus, were covered in details. Students perform five in-class team tasksemploying real-world events from Business Week, Economist, Financial Times, Fortune and Forbes magazine. Four individual homework assignments were collected and graded. One open-book Midterm Exam was given.

For the final projects, students worked in a group of two. They employed case studies, onworld richest billionaires in China, Brazil, France, India, Italy, Mexico, Nigeria, Saudi Arabia, Spain, and Sweden, see Table 1.

2. MK 326 Global Marketing

Thirteen people registered in Fall Semester 2014. One majors in Accounting, and the others are Management or Marketing majors.

Keegan and Green (2010)wrote the textbook. This course provides an introduction to international marketing. Topics include: US trade policy, cultural, business, legal, political environment, market research, emerging markets, market groups, global marketing management, products and services, marketing channels, exporting, logistics, negotiating with customers, partners and regulators.

Class meets twice a week, for one hour and fifteen minutes each. All seventeen chapters were covered. In addition to PowerPoint lectures and discussion, students worked in a team of three or four, doing in-class labs (Table 2):

1. Case Studies - using the ones in the textbook, on Argentina, Exporter, Market Research
2. Globe Trade – seven special websites that facilitate global marketing
3. Negotiation – video tapes to understand how difficult to close international deals with managers from China, Germany, Mexico or Russia
4. Siebel CRM – analyzing the success of Tom Siebel customer relation management
5. Trade Opportunities – using a CD-ROM that contains company details for export/import

During the semester, 8 classeswere set up for these labs. This provided them with critical thinking, team building and leadership skills.

For the lecture class, PowerPoint slides were employed to cover the content of each chapter. Just reading the slides bore them. So read a few lines, and then ask them questions:
Why is Apple making iPhones and iPads in China? Is Apple iPhone #1 in the world? Name the top five automakers, banks, money management, retailers, and oil companies in the world. Name the four most populated countries in the world. How many people are in European Union? What is CEE? What is the emerging market? What is BRIC? Is selling products in USA the same as selling in BRICs? Can you make money starting an import/export company today? If yes, how?How would the Russia invasion of Ukraine affect business? Why does USA have such a huge military budget? What is FDI? Why is the exchange rate important in global marketing? With the oil prices going lower, how would this affect international deals? This type of question keeps the lecture alive and students are challenged to find answers.

For the final projects, they worked in a group of one or two. They did extensive research on the company core business, sales, profit, financials, SWOT analysis, competitors, future plan, for the seven auto makers in the world: BMW, Honda, Hyundai, Mercedes Benz, Nissan, Toyota, and Volkswagen, see Table 3.

(B) Institute of Electrical and Electronics Engineers**

The Institute of Electrical and Electronics Engineers (IEEE) is a professional association in New York City that is advancing technological innovation and excellence. It has 425,000+ members in 160 countries, with about half of whom reside in the United States.

Since 1993, IEEE North Jersey Section Education Committee has run programming, management and marketing courses to retrain electrical engineers. 324 members and non-members have successfully completed courses in C Programming, C++ Programming, Java Programming, Advanced Java Programming, Project Management, Marketing Research, and C# .NET Programming.

Starting in January 2008, Hsu served as the Chair of Education Committee. George Sierchio was hired to teach Project Management course twice. John Huang taught C#. Hsu was the instructor for all other classes since 1993, Table 4. Working closely with New Jersey Institute of Technology and Fairleigh Dickinson University, courses were offered on evenings or weekends at their campuses.

Project Risk Management

In March and July 2014, Project Risk Management was offered at New Jersey Institute Technology with 9and 4 registrations respectively. Participants had diverse background – five engineers, six IT professionals, one in sales, and only one worked as project risk manager.

Gido and Clemens (2006) was used as the textbook. Topics were:

- Explain the need for a project risk manager
- Define SOW, PERT, GANTT, CPM, and Scope of the project
- Identify the team members, resources and plan for the strategy

- Calculate schedule, budget variances, and monitor project progress
- Manage changes, estimates, and communications
- Set a baseline, import tasks from MS Excel, export MS Project files to MS Word
- Approve updates and conclude a project plan
- Analyze Cloud Computing, Service Level Agreements, IT Security
- Present student Projects

In addition to the lecture and discussion, 30 minutes in each class were spent on 'hands-on" exercises in a team of 2 or 3 people per team:

1. Harvard Business Review case study
2. Business Plan software
3. Global Finance risk projects
4. MS Project 2013

This course was taught on Saturday, 9 am to 12 pm, for seven weeks. Microsoft Project 2013 was employed to perform specific tasks. Much discussion was spent on: You are an engineer or IT professional. What is the next step for you? Do you like to be a manager? If yes, how? Did you ever manage projects in small groups? Share with us your specific experiences. What are the essential skills that you need, so you may be promoted to a manager? Can you gain these skills in the next two years, why or why not?

If you like to change your field, what is the area you will pursue and why? Do you like to do sales, why or why not? Will you start an E-business? What is your expertise that people will pay you for your product or service? These types of questions engaged them.

They did 13 individual final projects: Advanced Communication System, Advertising Billing System, Alternative Data Center Site, Construction Two Family, Data Center Relocation, Distributive Antenna System, Elastic Cashing, IT Outsourcing, Monitoring System, PeopleSoft Upgrade, Power Engineering, Risk Migration and Terminal Servers. They presented their projects with seven PowerPoint slides and one MS Project slide.

Participantsloved this course. Four people gave public endorsements for this course on Linkedin (2014), the social media network with 300 million professionals worldwide.

(C) University of Phoenix**

University of Phoenix (UOP) is a private for-profit institution of higher learning. It has an enrollment of 300,000 students and is the largest private for-profit university in USA. UOP was founded in 1976 and is owned by the Apollo Education Group Inc. UOP has 100+ campuses and learning centers offering 100+ degree programs from associate degrees to PhDs. Its main campus is located in Phoenix, Arizona. The New Jersey campus is located in Jersey City.

In February 2008, Hsu went through a rigorous 16-hour training session and was certified to teach UOP courses. The training was mandatory for all instructors regardless of prior teaching

experience. From May 2008 to December 2014, Hsu taught: Algorithm Logic for Computer Programming, College Mathematics, Creative Mind, Critical Thinking, Essentials of Personal Finance, Information System Security, Integrated Business Topics, Management Negotiations, Marketing, Marketing Research, Organization Behavior, People Science Environment, Public Relations, and Quality Management Productivity, and Research Information Utilization. Hsu taught most of these courses in the past. Six papers were published: a) Marketing Research, Hsu (2006), b) Organizational Behavior, Hsu (2008), c) Critical Thinking, Public Relations and Integrated Business Topics, Schmidt and Hsu (2009), d) Personal Finance, Levit and Hsu (2011), e) Research Information Utilization, Gabriel and Hsu (2013), f) People Science Environment, Hsu (2013), and g) Algorithm Logic for Computer Programming, Hsu (2014).

POS 355 Introduction to Operating Systems

This course provided an introduction to operating systems. Topics covered include operating system concepts, program execution, and operating system internals such as memory, processor, device, and file management. A variety of operating systems were compared and contrasted.

The on-campus course at UOP consisted of a five-week, four hours per week schedule. UOP E-Learning website (E-campus) includes the reading assignment for each week and the E-textbooks for students to access. This mechanism saved students time and money.

Six people enrolled in this course. Two learning teams were formed with three people each. Individual and Learning Team assignments were required every week. The Learning Team placed students to work in a group after class. Table 5 provides the point values for weekly assignments.

In addition to the in-class lecture, students would spend 5 hours or more each week to do Learning Team assignments either online or in-person. Adding the 25 hours doing assignments and the lecture 20 hours, give 45 hours for the total time spent on this course.

Hsu presented lectures using PowerPoint slides of two textbooks, Silberschatz (2013) and Stallings (2015). For the five weeks, 8 chapters of Silberschatz (2013) and 15 chapters of Stallings (2015) were covered in class. Topics were: computer system overview, process description control, threads, memory management, virtual memory, uniprocessor scheduling, multiprocessor real-time scheduling, file-system interface, mutual exclusion synchronization, deadlock starvation, i/o management, disk scheduling, file management, operating system concepts, the Linux system, influential operating systems, embedded operating systems, operating system structures, virtual machines, distributed system structures, Windows 7/8, distributed processing, client server, clusters, protection, and operation system security issues.

For Learning Team or Individual Assignments, students log on the website of SkillSoft, and access SkillPort, the 24x7 gateway to learning resources for skills improvement, professional development, performance support, and more.

Each chapter of these textbooks consisted of 40 to 80 slides, and the topics are highly theoretical in nature. So the way to engage students was to cover basic concepts in the first two hours of lecture and ask them the following:

Are there jobs in the IT field? Name the three types of jobs? Answer: Programming, Networking, Database. Give them the job description in each field, salary and number of positions available using CareerBuilder.com, Dice.com, Indeed.com, and other sites. Use Salary.com to find the salary of working at FaceBook, Google, IBM, Microsoft and Verizon.

Load the Java Virtual Machine Java 7 to the operating system. Compile and run several Java programs. Show them the results of a Java program. Then go through it step-by-step to briefly explain what the content of a Java program looks like. There is an acute shortage of Java, C++ and C# programmers in New York area. Demonstrations of Java got their immediate attention. Salary for Java programmers range from $65,000 to 125,000 per year.

Ask students to provide their real-life IT experiences, and to discuss the pros and cons for each issue. All six people major in IT. So they need to get "hands-on" to learn more.

The two Learning Teams employed real-world case studies to do final projects:

Team A (3 people): Desktop Operating System comparison --- MS Windows 7/8, 10, Apple iMac OS,UNIX OS, and Linux OS

Team B (3 people): Mobile Operating System comparison ---Google Android OS, Apple iPhone OS, MS Nokia Lumia OS, and BlackBerry OS

The written final paper was 3000 words minimum (10 page). The paper grade was the same for the group. Power Point 12-15 slides were needed. The oral presentation grade was individual. Both teams did excellent jobs in their research paper and presentation. Several indicated they would take courses with this author again.

Conclusion

Students/professionals learn the theory and need to connect it to the real world. International Management, Global Marketing, Project Risk Management, Operating Systemswere taught at three different firms of higher learning to 52 people. The E-campus infrastructure at University of Phoenix made the E-Learning a pleasure. It is an excellent platform to train tomorrow's leader.

Teaching and learning strategies included the in-class use of Business Week, Economist, Financial Times, Forbes, Fortune, Harvard Business Review,Business Plan Software, MS Project 13 Software, Homework, and Internet Search. Final projects involved a written paper and the PowerPoint presentation by a team or an individual. All of these tools and reports attributed to the success in an E-Learning environment. Students/professionals raved about the experiences.

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*Full-Time Position**Part-Time Consultant

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Table 1	**MG 355 Final Group Projects**	**International Management 12/10/2014**	
Group A	***Topic***	***Group B***	***Topic***
Golubykh	**Carlos Slim Helu**	**Pratts**	**Amancio Ortega**
Peligri	**America Movil, Mexico**	**Richards**	**Zara, Spain**
Group C	***Topic***	***Group D***	***Topic***
Ciccone	**Jack Ma**	**Keppis**	**Bernard Arnault**
Martin	**Alibaba, China**	**Mejia**	**LVMH, France**
Group E	***Topic***	***Group F***	***Topic***
Lacey	**Stefan Persson**	**Borthwick**	**Aliko Dangote**
Perez	**H&M, Sweden**	**O'Halloran**	**Dangote, Nigeria**
Group G	***Topic***	***Group H***	***Topic***
Alonso	**MukeshAmbani**	**Anderson**	**Michele Ferrero**
Arce	**Reliance, India**	**Garcia**	**Ferrero, Italy**
Group I	***Topic***	***Group J***	***Topic***

Calderon	**Prince Alwaleed**	**Ventura**	**Jorge Lemann**
Montina	**Kingdom, Saudi Arabia**	**Yung**	**InBev, Brazil**

Table 2	**MK326**	**In Class**	**Lab Chart**	
	Group A	***Group B***	***Group C***	***Group D***
	Anderson*	**Hueston**	**O'Brien***	**Pastrana, A**
	Travaglini	**Lacy***	**Sano**	**Pastrana, J**
	Ulli	**Rose**	**Tirone**	**Perez***
			Borthwick	
8/28	**Trade Opp**	**Globe Trade**	**Case Study**	**Negotiation**
9/04	**Siebel CRM**	**Globe Trade**	**Case Study**	**Negotiation**
9/16	**Negotiation**	**Trade Opp**	**Globe Trade**	**Case Study**
9/23	**Negotiation**	**Siebel CRM**	**Globe Trade**	**Case Study**
10/16	**Case Study**	**Negotiation**	**Trade Opp**	**Globe Trade**
10/23	**Case Study**	**Negotiation**	**Siebel CRM**	**Globe Trade**
11/06	**Globe Trade**	**Case Study**	**Negotiation**	**Trade Opp**
11/13	**Globe Trade**	**Case Study**	**Negotiation**	**Siebel CRM**

Table 3	**MK 326**	**Global Marketing**	
	Final Project		
Group A	***Topic***	***Group B***	***Topic***

Pastrana, A	**Toyota Motors**	**Lacy**	**Nissan Motors**
Pastrana, J	**Japan**	**Perez**	**Japan**
Group C	***Topic***	***Group D***	***Topic***
Rose	**Honda Motors**	**Hueston**	**Volkswagen**
Sano	**Japan**	**Tirone**	**Germany**
Group E	***Topic***	***Group F***	***Topic***
Borthwick	**BMW**	**O'Brien**	**Mercedes Benz**
Travaglini	**Germany**	**Ulli**	**Germany**
Group G	***Topic***		
Anderson	**Hyundai Motors**		
	South Korea		

Table 4 IEEE North Jersey Section Education Committee

Term Yr	*Course Title*		*Location*	*No.*
Sprg 1993	**C Programming**		**JCPL**	**27**
Fall 1993	**C++ Programming**		**JCPL**	**25**
Fall 2002	**Java Programming**		**BAE System**	**26**
Sprg 2003	**Java Programming**		**Ramada Inn**	**21**
Fall 2003	**Advanced Java**		**Wellsley Inn**	**9**
Sprg 2004	**Project Management**		**HPTI**	**12**
Fall 2004	**Project Management**		**NJBMC**	**12**
Sprg 2005	**Marketing Research**		**NJBMC**	**6**
Fall 2005	**Project Management**		**Elcom**	**16**
Fall 2005	**Project Management**		**NJBMC**	**12**
Sprg 2006	**Project Management**		**NJBMC**	**7**
Sprg 2006	**C# .Net Programming**		**Avtech**	**14**
Fall 2006	**Project Management**		**NJBMC**	**10**
Fall 2006	**C# .Net Programming**		**Avtech**	**5**
Sprg 2007	**Project Management**		**NJBMC**	**6**

Sprg 2007	**C# .Net Programming**		**Avtech**	**6**
Fall 2007	**C# .Net Programming**		**AVTI**	**6**
Sprg 2008	**Project Management****		**NJBMC**	**8**
Fall 2009	**C# .Net Programming**		**ATM**	**7**
Sprg 2010	**C# .Net Programming**		**NJIT**	**6**
Sprg 2010	**Project Management ****		**NJIT**	**10**
Sprg 2011	**Project Management**		**NJIT**	**11**
Sum 2011	**C# .Net Programming***		**NJIT**	**4**
Sum 2011	**Marketing Research**		**NJIT**	**4**
Fall 2011	**C# .Net Programming**		**NJIT**	**3**
Fall 2012	**Project Management**		**FDU**	**7**
Fall 2012	**C# .Net Programming**		**NJIT**	**2**
Sprg 2013	**C# .Net Programming**		**NJIT**	**12**
Sum 2013	**Java Programming**		**NJIT**	**5**
Fall 2013	**C# .Net Programming**		**NJIT**	**2**
Fall 2013	**Project Management**		**NJIT**	**2**
Sprg 2014	**Project Risk Management**		**NJIT**	**9**
Sprg 2014	**C# .Net Programming**		**NJIT**	**4**
Sum 2014	**Project Risk Management**		**NJIT**	**4**
Fall 2014	**C# .Net Programming**		**NJIT**	**4**

****George Sierchio *John Huang**

Total enrolled ====>>>>> *324*

Table5Individual and Learning Team Assignment for University Phoenix
POS 355 Introduction to Operating Systems

Week 1 --- Computer and Operating System Component		
Individual Attendance Active Participation	11/01/14	4 points
Individual Memory Management Paper	11/01	8 points
Learning Team Charter	11/01	3 points
Week 2 --- Processes and File Device Management		
Individual Attendance Active Participation	11/08	4 points
Learning Team: Unix®, Linux®, Mac OS®,		
Windows® Operating Systems Comparison	11/08	5 points
Individual: File Management Paper	11/08	8 points

Week 3 --- Operating Systems		
Individual Attendance Active Participation	11/15	4 points
Learning Team: Unix®, Linux®, Mac OS®,		
Windows® Operating Systems Comparison	11/15	5 points
Individual: Open and Closed Source System	11/15	8 points
Week 4 --- Distributed Processing and the Virtualization of Operating Systems		
Individual Attendance Active Participation	11/29	4 points
Learning Team: Unix®, Linux®, Mac OS®,		
Windows® Operating Systems Comparison	11/29	5 points
Individual: Failures	11/29	8 points
Week 5 --- Other Devices Operating Systems, the Future and Computer Security		
Individual Attendance Active Participation	12/06	4 points
Learning Team: Unix®, Linux®, Mac OS®,		
Windows® Operating Systems Comparison Paper	12/06	12 points
Individual: Unix®, Linux®, Mac OS®,		
Windows® Operating Systems Comparison Presentation	12/06	10 points
Individual: Operating System Security Flaws	12/06	8 points