An Approach to What Could Be Covered in an IS MBA Course, and How It Could Be Delivered

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Abstract

When asked to deliver an IS MBA course, two questions arise; what material could and should be covered, and how could the course be delivered? The IS module of an MBA is usually a compulsory module at an advanced level. Rather than finding, adopting and following a text book, the issue of CIO concerns was investigated, and a syllabus built around these issues using case studies. Students then had to research, present and question the case studies. The result was that students engaged with, and integrated IS with other MBA modules.

Keywords: Course Content, Course delivery, IS MBA.

Introduction

When asked to deliver an Information Systems (IS) MBA course, two questions arise; what material could and should be covered, and how could the course be delivered? One approach is to search for, and find a suitable text book on which to base the course. A wide range of excellent text books have been created for IS MBA courses, including the widely used books by the following authors (Laudon & Laudon, 2012; Pearlson & Saunders, 2010). These text books come with useful and helpful supporting material for lecturers as well as students. Materials include lecture resources (PowerPoint slides and lecture notes), companion websites, text banks, and case studies.

Academics should however continually challenge and question all systems, including the curricula, societal and market demands, and teaching methods (Johnston, 2010). So instead of finding, adopting and following a textbook such as Laudon and Laudon (2012), a questioning approach was followed. Questions such as what are the key Information Systems issues concerning management at present, how do management decide where they should allocate time and resources, how do management prioritize were asked.

A literature search was conducted using Google Scholar and a University Library to find relevant academic journal and conference articles on key issues for IS management. The search was then broadened to find non-academic and business articles related to the topic.

The next section details the results of the literature search; this is followed by the development of the framework for an MBA IS module presented at a university in Germany in 2011. The paper then details how the module was taught and presented, followed by the conclusion which looks at the results.

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What are the Key Information Systems Issues Concerning Management?

"Since 1980, the Society for Information Management (SIM), in a joint effort with different academic leaders, has conducted an annual survey of the key issues facing IT executives in the United States" (Luftman & Ben-Zvi, 2010, p. 49). These annual surveys have been repeated in many countries, and the latest surveys include European, South East Asian, and Latin American countries (Luftman & Zadeh, 2011).

The recent SIM surveys provide two major lists; the most influential technologies, and the top IS management concerns. The technologies and issues have changed over time as expected, but for the purposes of this paper only the most recent survey results were examined.

The top application and technology developments as ranked by 472 respondents in the most recent SIM survey (Luftman & Zadeh, 2011) are as detailed in Table 1. Several of these such as cloud computing, SaaS, and virtualization are hardly if at all covered in any detail in most textbooks.

Table 1: Top Application and Technology Developments (Luftman & Zadeh, 2011)

	Global	US	Europe	SE Asia (inc Australia)	Latin America
Business intelligence	1	1	3	2	2
Cloud computing	2	5	1	3	3
Enterprise resource planning (ERP) systems	3	3		1	4
Software as a Service (SaaS, PaaS)	4		2		5
Collaborative and workflow tools	5				1
Business process management systems	6		4	5	
Virtualization	7	2			
Continuity planning/disaster recovery	8	4			
Microsoft upgrade	9			4	
Security	10		5		

The top management concerns of the respondents across a wide range of industries are as detailed in Table 2 (Luftman & Zadeh, 2011). The number one concern, business productivity and cost reduction could perhaps be there as a result of the global economic downturn which commenced in 2007/8, as can be seen in Table 3.

Table 2: The top IT management concerns (Luftman & Zadeh, 2011)

	Global	US	Europe	SE Asia (inc Australia)	Latin America
Business productivity and cost reduction	1	1	1	1	1
IT and business alignment	2	3	3	2	3
Business agility and speed to market	3	2	4	6	2
Business process management & re-engineering	4	5	2	3	4
IT reliability and efficiency	5	4	6	4	8
Revenue-generating IT innovations	6	7	7	6	7
IT strategic planning	7	6	7	9	5
IT cost reduction	8	8	5	14	11
Project management	9	16	18	6	6

Globalization	10	10	15	10	13
Security and privacy	11	9	20	11	9
Enterprise architecture	12	13	11	12	14
Considerations of IT human resources	13	14	16	5	16
Change management	14	11	11	16	15
Knowledge management	15	15	17	12	10
Supplier management/Outsourcing	16	12	7	18	19
Leadership role of CIO	17	20	11	19	12
Sourcing decisions	18	17	7	20	20
Social implications of IT	19	19	19	17	17
Design in the IT area	20	21	21	14	18

Table 3 shows a history of IT management concerns from 2003 to 2010, which shows how some concerns have remained in the top 10 (such as IT and Business Alignment, and IT strategic planning), many other have surfaced recently (IT reliability and efficiency, Revenue-generating IT innovations, and Globalization), while others have disappeared (Attracting, developing and retaining IT staff was number 2 in 2004 and 2005) (Luftman & Ben-Zvi, 2010).

Table 3: A history of IT Management concerns (Luftman & Ben-Zvi, 2010)

IT Management concerns	2010	2009	2008	2007	2006	2005	2004	2003
Business productivity and cost reduction	1	1	7	4				
Business agility and speed to market	2	3	13	17	7		5	7
IT and business alignment	3	2	1	2	1	1	1	1
IT reliability and efficiency	4	6						
Business process re-engineering	5	4	18	15	11	5	10	10
IT strategic planning	6	7	3	8	4	4	4	2
Revenue-generating IT innovations	7	8						
IT cost reduction	8	5	7	4				
Security and privacy	9	9	8	6	3	2	3	3
Globalization	10	15						

The idea then arose that a set of seminars could be developed from these results. The first set of 10 seminars could be based on the technological issues from Table 1, while the 20 management issues in Table 2 could provide a focus for managerial IS issues.

The next step was to examine what non-academic researchers and business articles said about the topic. Here two main sources were used, Gartner and IBM. Gartner (McDonald & Aron, 2011; Raskino, 2011) asked CIOs to provide, in a free-form manner, their top 3 business strategies, CIO strategies and technologies. McDonald and Aron (2011) then categorized the CIO responses into groups and then used these groups to rank CIO priorities in the top 10 lists. Interestingly, the Gartner surveys are also broken down into technological and management issues, as shown in Tables 4 and 5.

Table 4: CIO Technology priorities (McDonald & Aron, 2011)				
CIO Technologies	**Ranking of technologies CIOs selected as one of their top 3 priorities in 2011**			
Ranking	**2011**	**2010**	**2009**	**2008**
Cloud Computing	1	2	16	
Virtualization	2	1	3	3
Mobile Technologies	3	6	12	12
IT Management	4	10		
Business intelligence (BI)	5	5	1	1
Networking, voice and data communications	6	4	6	7
Enterprise applications	7	11	2	2
Collaboration technologies	8	10	5	8
Infrastructure	9	14	7	6
Web 2.0	10	3	15	15

If one compares the technology tables (Tables 1 and 4), it is apparent that there are many similarities and overlaps between the SIM and Gartner surveys.

Table 5: Global business strategies (McDonald & Aron, 2011)					
Business strategies	**Ranking of business strategies CIOs selected as one of their top 3 in 2011 and projected for 2014**				
Ranking	**2011**	**2010**	**2009**	**2009**	**2014**
Increase enterprise growth	1				1
Attracting and retaining new customers	2	5	4	2	3
Reducing enterprise costs	3	2	2	5	6
Creating new products or services (innovation)	4	6	8	3	4
Improving business processes	5	1	1	1	13
Implementing and updating business applications	6				12
Improving the technical infrastructure	7				7
Improving enterprise efficiency	8				10
Improving operations	9				2
Improving business continuity, risk and security	10				23
Expanding into new markets and geographies	11	13	10	4	5
Attracting and retaining the workforce	12	4	3	6	8
Introducing and improving business channels	15	15			9

Based on conversations with over 3000 executives globally, IBM produced a report of insights gathered. The report identified technologies on which CIOs are focussing in 2011, and how these compare to what they were focussing on in 2009 as shown in Figure 1 (Horan, 2011).

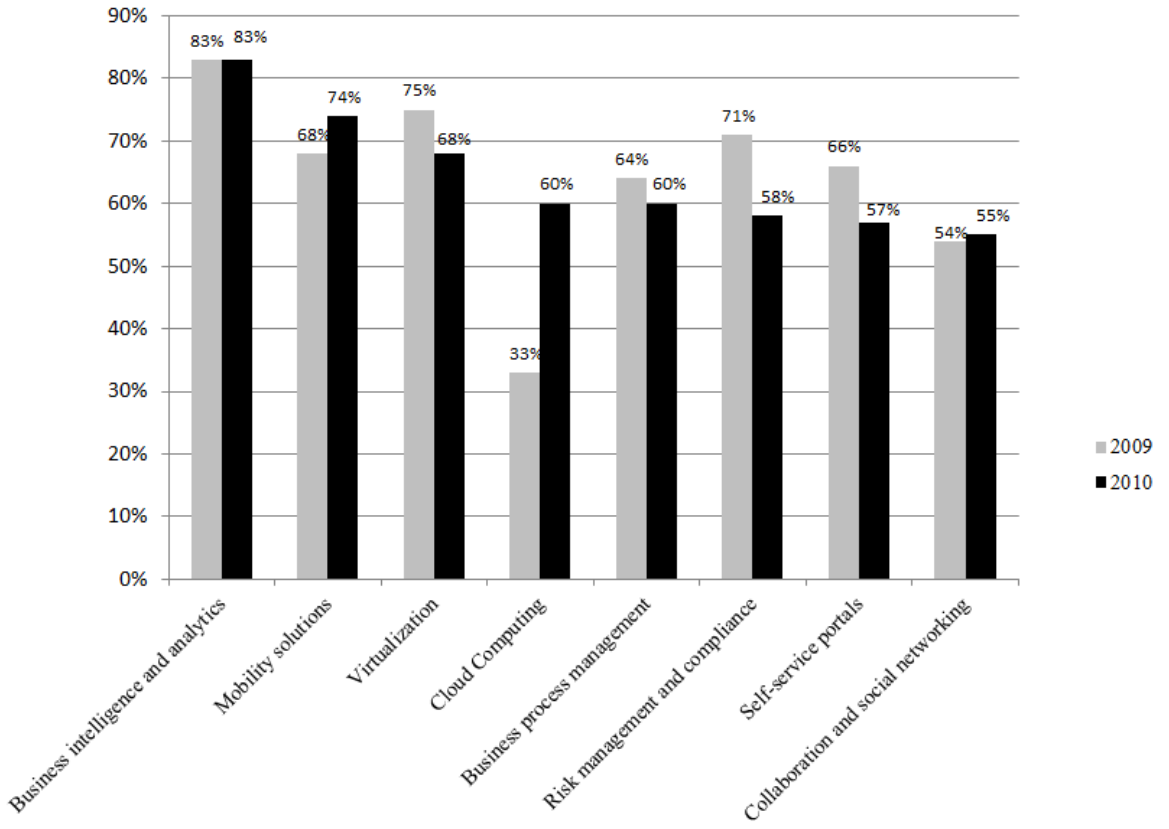

Figure 1: Technologies on which CIOs are focusing (Horan, 2011)

The IBM study also found that the vast majority of CIOs and CEOs identified *insight and intelligence, client intimacy and people skills as* their top three priorities as where they will focus IT over the next three to five years as shown in Figure 2 (Horan, 2011).

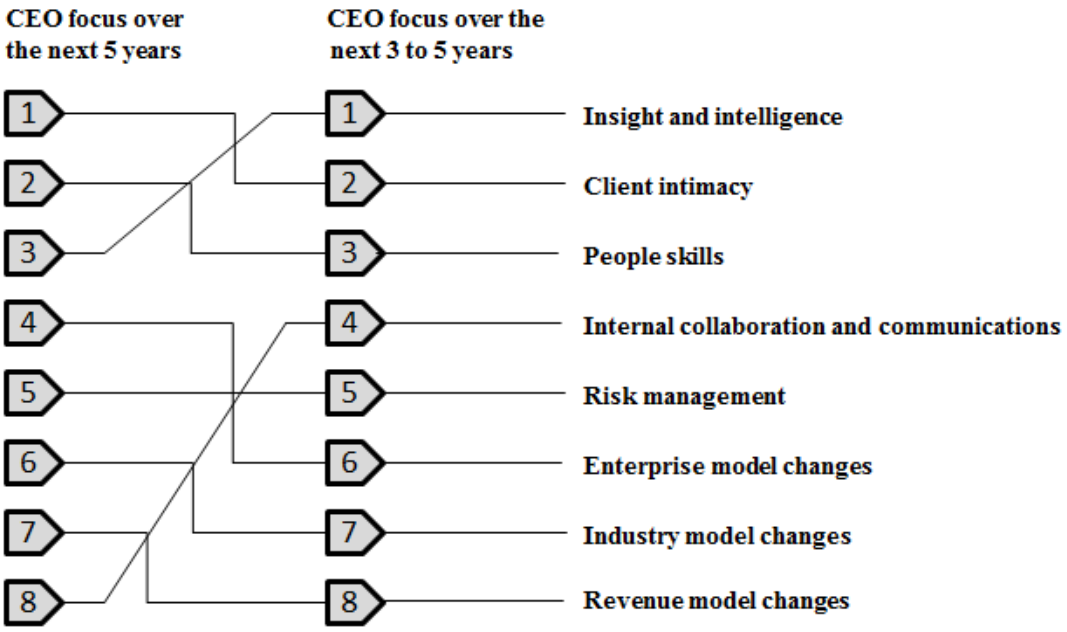

Figure 2: CEO & CIO focus (Horan, 2011)

Development of the Framework for an MBA IS Module

Using information from the literature, a framework was developed for an MBA IS module which was delivered to an MBA course in Germany in 2011. Comparing the technology tables and figures (Tables 1 and 4, and Figure 1), and the management tables and figures (Tables 2 and 5, and Figure 2), it is apparent that there are many similarities and overlaps. Thus it was decided to base the module on the Luftman and Zadeh (2011) study, as it was the most academic study, and the other studies were similar. The framework aimed to ask and answer several questions including: What is worth knowing? What is it good for? When will we ever need this? How do I know? (Postman & Weingartner, 1969).

The first 6 lectures were delivered by the lecturer, and these were labeled L.1 to L.6 as in Table 8. The first two lectures covered the introduction to the module, and an introduction to the key IT Management issues. Students were randomly assigned topics from the lectures numbered 1 to 24, which he or she had to research, develop questions, and present to the class in digital format. The instructor gave the students guidelines and additional literature sources. Before the particular class the allocated student was required to load the case study and the questions onto the university's e-learning platform. The student was then expected to present the case study and questions, and facilitate a discussion relating to the case study and questions in class. The class approach is based on interactivity, so each student was expected to come prepared by having read the case study and prepared questions. Students were forced to ask questions, and were assessed on the questions they asked.

The following two lectures (L.3 and L.4) covered an introduction to Web 2.0-5.0, and an introduction to entrepreneurialism and intrapreneurship (entrepreneurship that occurs within a company). Lecture L.5 covered the importance of questioning in businesses, as well as practical exercises and examples of how to question. Lecture L.6 covered guidelines for preparing academic articles, advantages and disadvantages of using models, as well as how to analyze and assess case studies.

Table 6: Lecture schedule with Case Studies		
No.	**Topic**	**Case Study**
L.1	Introductions/Preliminaries/Assignment allocations	
L.2	Introduction to key IT and management issues	
L.3	Introduction to IS Web 2.0-5.0	
L.4	Introduction to IS Entrepreneurialism	
L.5	Introduction to Questioning	
L.6	Introduction to Case Studies	
1	Business intelligence (BI)	US Airline (2008)
2	Cloud computing	US University (2009)
3	Enterprise resource planning (ERP) systems	ERP in Oman (2009)
4	Software as a Service (SaaS, PaaS)	SaaS in US (2008)
5	Collaborative and workflow tools	Collaborative workflow (2009)
6	Virtualization	Virtualisation (2010)
7	Continuity planning/disaster recovery	Australian tax Office (2010)
8	Security	Singapore hospital (2008)
9	Business productivity & cost reduction	Italian aerospace (2010)
10	IT and business alignment	SAM Alignment (2011)
11	Business agility and speed to market	Banking Agility (2011)
12	Business process management and reengineering	Pakistan Public Sector (2008)
13	IT reliability and efficiency	Chinese University (2009)
14	Revenue-generating IT innovations	Innovation and Change (2009)
15	IT strategic planning	SA Stock Exchange (2010)
16	Project management (PM)	PM information system (2007)
17	Globalization	UAE Government (2006)
18	Security and privacy	Slovenian risk management (2010)
19	Enterprise architecture (EA)	Harmond Bank (2005)
20	Considerations of IT HR & leadership of CIO	Tanzanian Health Sector (2006)
21	Change management	Intranet Redesign (2008)
22	Knowledge management (KM)	Construction Industry (2008)
23	Supplier management/Outsourcing	Offshore middlemen (2008)
24	Social (and ethical) implications of IT	Workplace use of Facebook (2009)

The first 8 seminars were based on the top 10 technological issues as identified by Luftman and Zadeh (2011). One of the technological issues (number 6) was incorporated into seminar number 12, and the vendor specific issue (number 8) was ignored.

Of the 20 management issues from Luftman and Zadeh (2011), number 18 was incorporated with number 1 as both were to do with cost reduction. Number 17 was incorporated into number 13 as both were people related, number 18 was incorporated into number 16 as one sourcing issue, and number 20 (design) was left out due to time limitations. Although one seminar (number 24) was dedicated to social and ethical issues, critical content was introduced into the course at all stages. Students were encouraged to, and readily discussed social issues such as poverty, AIDS, racism, sexism, cultures and power.

Each seminar (1-24) lasted 45 minutes, in which the lecturer gave a lecture of maximum 20 minutes on one of the key information technology and management issues, and provided theoretical background to issues in the case study. The responsible student then made a 10 minute (max-

imum) presentation to the class concerning the main topics in the case study, and questions raised. The case studies were selected from a wide range of industries, from a range of countries across the globe. Students were allowed to use a number of presentation formats including use of PowerPoint, handouts, blackboard, video, etc. Students were encouraged to make the presentations clear, informative, and interesting. After the presentation, the student facilitated a 15 minute (maximum) discussion (Question & Answer) session with the class. The student was responsible for ensuring a vital discussion took place, and 30% of a student's assessment was based on the class presentations.

Participation by students in class discussion and activities was an important part of this course. Students were required to read the required cases and develop questions before coming to class, and a further 30% of a student's assessment was based on questions asked and answers given. Grades reflected the total impact the student had on the class over the module, through significant and insightful comments, and a demonstration of good problem-solving and analytical skills.

Attendance and administration accounted for 10% of a student's assessment. Attendance was compulsory at all seminars, and the administration mark was obtained by the student loading the case study and questions onto the university's e-learning platform before the seminar, and by the student loading both the lecturers and their presentation, and a summary of the answers onto the university's e-learning platform within 24 hours of the seminar.

A one hour closed book test based on a case study handed out to the students 48 hours prior to the exam made up the final 30% of the course mark. Questions were based on the issues covered during the module.

Findings

Academics should see themselves as both researchers and teachers (Johnston, 2010). Research was first conducted on what to cover on the course. The students and their responses were then observed both in class and in their submissions.

It was observed that although 70% of students initially classified themselves as technophobes, and stated that they did not see much relevance in the IS module, all the students engaged with the material. Students discovered that the ability to ask questions goes hand in hand with ability to learn, and that questions shape ones direction and focus (Marquardt, 2005). All students participated in the class discussions, and all of them incorporated stories from personal experience. All students discussed what they would do regarding various aspects of technology once in the workplace, and all students integrated material from other MBA modules into the discussions.

Conclusions

Today there is so much information available on so many subjects, but what is relevant and significant is not easy to discover, and this is one of the main roles of a teacher. Doing research into course content (what should be covered) for each course can be beneficial to both the lecturer and the students. A lecturer should help students discern the relevant from irrelevant, the significant from the insignificant, and the applicable from the inapplicable (Dreyfus, 1999).

An interactive method focusing on questioning and discussion while working on unstructured and complex problems, and promoting an integration of knowledge of business, strategy, psychology, and information technologies appears to work at an MBA level. Information can only be turned into knowledge if a student is both committed and involved. The heart of education should be to develop a student's ability to question and to use his/her judgment in everyday life, so priority should be given to the formation of questions and judgment rather than memory and recall (Foglia, 2004).

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Biography

Kevin Johnston is an associate professor in the Department of Information Systems at the University of Cape Town, South Africa. Before becoming an academic, he worked for 24 years in industry. His main areas of research are IS Change, IS Management, and IS education.