

Electronic Commerce Specialisations in MBA Programs: An Australian Case Study

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Abstract

This paper looks at the development of Electronic Commerce specialisations in an MBA program, and particularly at a recent specialisation developed at Victoria University, Australia for its local and overseas MBA students. These MBA specialisations are very popular in Australia, and half of the MBA programs with specialisations have one in an e-Commerce related field. An examination of some of these specialisations highlighted in the literature, or in Australian universities, shows that the two most popular topics in them are e-Marketing, the management of e-Commerce in business and e-Commerce business models. Victoria University has recently introduced an e-Commerce specialisation that targets these areas, as well as other popular uses of Internet technologies in business and the development of e-Commerce web sites. This specialisation is explained in the paper, along with the different modes of the specialisation delivered at Victoria University campuses in Melbourne, Singapore and Beijing.

Keywords: Computers, information technology, electronic commerce, MBA programs, management education.

Introduction

There is no doubt that Electronic Commerce (e-Commerce) is the flavour of the month. Employers are requesting that business graduates have skills in the area and students of universities around the world are clamouring to study e-Commerce subjects. Universities offering Master of Business Administration (MBA) programs are increasingly offering them with e-Commerce specialisations. This paper looks at the development of e-Commerce specialisations, particularly a recent specialisation developed at Victoria University (VU), Australia for its local and overseas MBA students.

Electronic Commerce in MBA Programs

These days, many universities offer masters courses with some component of e-Commerce. Courses range from an MBA with some type of e-Commerce specialisation through to a full Master of Science in e-Commerce (Melymuka, 2000; Mitchell, 2000; Dobbs, 1999; Wahl, 1999).

Master's programs range from the heavy business focus of MBAs to the hands-on approach of master of science programs. But they all have several things in common. They've been cobbled together

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in record time, they're evolving by the minute, they're wildly popular with students, and they will probably disappear in five years.

(Melymuka, 2000 :48)

The last comment by Melymuka is an interesting one. There is no doubt that many of these programs have been developed in a short period of time and

that they are very popular, but the argument that they will ‘probably disappear in five years’ is based on two premises. Firstly, that many of the concepts now being taught specifically in e-Commerce subjects will eventually be taught as part of common business subjects (for instance, E-Marketing concepts will become part of normal Marketing). One thing to remember is that e-Commerce may not always be new and mystifying. As it becomes accepted amongst the various areas of business there may be less need for specific e-Commerce related skills (Wahl, 1999). Secondly, that e-Commerce represents the latest ‘fad’ and will disappear in time. The authors tend to support the first view rather than the second one!

The focus of this paper is particularly on generic MBA programs containing a specific e-Commerce specialisation.

E-Commerce Specialisations in Australian MBAs

Ashendon and Milligan (2001) edit the *Good Universities Guide to Business & Management Courses*, a guide to Australian MBA and other management programs, on an annual basis. For 2002, the guide lists forty-two generic MBA courses. Of those courses, only six do not have some type of specialisation. Half of the MBAs that have a specialisation have one in e-Business (8), e-Commerce (9) or e-Commerce management (1).

Content of E-Commerce Specialisations

One of the challenges of developing an e-Commerce specialisation in an MBA is to effectively match the topics covered in the specialisation with those covered in the generic business part of the degree. For instance, if there is a Marketing subject in the core of the MBA course then the E-Marketing part of the specialisation should build on the knowledge gained in the foundation subject. The following shows some of the areas targetted by MBA e-Commerce specialisations identified in the literature:

1. Marketing, information technology and economics (Direct Marketing, 2000).
2. Management and technical issues in e-Commerce applications (Gurusinghe, 2000).
3. Foundations, organisational impacts and management implications of using e-Commerce technologies in business (Gurusinghe, 2000).

Specific topic areas targetted in these courses are presented in Table 1. In the table, the numbers represent the numbered references in the previous paragraph. In the last three columns, the topic areas of three of the four other universities in the state of Victoria, Australia (the same state as Victoria University) are listed. These details have been gained from the websites of each university as follows: La Trobe University (www.latrobe.edu.au), Swinburne University (www.swinburne.edu.au) and the University of Ballarat (www.ballarat.edu.au). The website of RMIT University (www.rmit.edu.au) did not show details of the e-Business specialisation listed in the Ashendon and Milligan (2001) guide.

Table 1: Topics in an e-Commerce specialisation

Topic Area	1	2	3	LaTrobe	Swinburne	Ballarat
Internet Related						
Marketing on the Internet	*	*		*	*	
Managing Electronic Commerce in Business/ Models	*	*	*	*	*	*
Information Retrieval/ Intelligent Agents		*				
Legal, Security &/or Privacy Issues			*	*		
E-Commerce Technologies						*

General Marketing						
Database Marketing	*					
Marketing Research	*					
Advertising and Sales Promotion	*					
General Management						
Business and Strategic Management		*				
Supply Chain Management						
Distribution Channels and Sales Force Management	*	*				
Information Technology						
Business Data Communications/ Networking	*	*	*			
Business Process Analysis and Design	*					
Information Systems in Management		*		*		
Programming		*				
Accounting						
Cost and/or Financial Information Systems	*		*			

It is interesting (but not surprising, perhaps) that the concentration of most specialisations is on marketing, business models and business applications in the e-Commerce area. It would be safe to assume that most of the courses that have general business topics in their content (marketing, management and so forth) would have them there because they are not adequately covered in the generic core.

There is no doubt that things are moving incredibly fast in the e-Commerce field, as they did in IT in the 70s and 80s (Tatnall 1993). Another challenge facing universities that offer these degrees is not only to decide upon suitable content, but also attracting qualified staff to teach them and providing materials and facilities that are up-to-date to support them (Dobbs, 1999).

Suitability of the E-Commerce Specialisation

How suitable are these MBA specialisations in the real world? Companies are in need of people who can implement and manage the new ways of doing business (Wahl, 1999). Abraham Seidmann, professor of computers and information systems at the William E. Simon graduate School of Business Administration in the US, comments:

The Internet is changing every dimension of the way in which the world conducts business. This tremendous explosion in information intensive industries is driving a much stronger demand for MBA students who have extensive training and education in high technology to manage business.

(Siedmann, 2000 :20)

Greg Scileppi, executive director of RHI Consulting in Canada states:

Nationwide, firms are actively recruiting Web developers, e-Commerce specialists and systems integrators to align traditional 'brick and mortar' operations with successful e-Commerce models.

(Scileppi, 2000 :17)

Gurusinghe (2000) suggests that companies are looking to hire professionals who can not only develop and support Internet and intranet systems (the 'technical' side), but who can also understand the 'business' applications of the e-Commerce technologies. For students with a technology background, these type of courses can provide the business and management skills to progress to the next level of their careers (Dash, 1999).

The MBA at Victoria University

The Victoria University MBA commenced in Melbourne in 1993 and is now offered in Singapore, Beijing and Dhaka as well as Melbourne, with an enrolment of more than 500 students.

Australian universities are very attractive to international students, particularly from Asia and Victoria University has been actively growing the number of international students involved in their full-fee paying courses in recent years. Until 1998 this involvement was primarily the provision of programs taught in Australia. In recent years, however, more Asian countries have been receptive to international universities providing courses in-country and universities have become more willing to provide such services. This willingness has developed because the providers can see the increasing demand from a well-educated and relatively well-paid middle class, and quality control concerns are more easily met with the rapid development of communications and other facilities in potential host countries.

The MBA offered at Victoria University is a twelve subject program consisting of at least eight core subjects and up to four electives. The actual subjects offered in a particular location are decided after discussions with our local partner and enrolled students. For example in Singapore, over the five years the program has been offered, the elective subjects have changed a number of times. The MBA market in Singapore is crowded and as a point of differentiation the students are very keen to have an MBA with a declared specialisation. In 2000 a specialisation in *e-Commerce Technologies* was introduced (refer next section). An MBA specialisation at VU consists of three subjects, plus the core information systems subject, *Management Information Systems*. In Singapore the e-Commerce subjects offered are the core subject *Management Information Systems*, which has a number of e-Commerce topics, and two elective subjects *Internet Commerce* and *Building Internet Commerce Systems*. These subjects were chosen because of their particular relevance to Singapore from the list of e-Commerce subjects developed by the School of Information Systems.

In Beijing the twelve subjects offered include the MIS core subject and one e-Commerce elective: *Internet Technologies in Business*. The MBA market in China is at a different stage of development to Singapore and the completion of a specialisation is not seen as important. However, from the potential list of over 100 electives available an e-Commerce subject was chosen as one of only 2 electives offered. In a country which has struggled for years to provide adequate traditional communication infrastructure the potential of electronic communication is seen as paramount to the continuing rapid development of commerce both within China and with the rest of the world. Many of the students on the MBA program are employed by multi-nationals and rely heavily on electronic communication at work.

The curriculum and software for e-Commerce subjects is rapidly developing and there are challenges in offering these subjects both on and offshore. Some of the challenges faced offshore include, the provision of reliable and compatible hardware, the appropriateness and popularity of software varies from one location to another, and the availability of suitable workshop leaders. The VU offshore teaching model involves a full semester of face-to-face teaching with 1/3rd delivered intensively by the VU subject leader and 2/3rd delivered by a locally employed workshop leader. The difficulties faced in delivering the subject offshore are often exaggerated once the subject lecturer has returned to Melbourne and 'on the run' solutions are often difficult to implement at a distance.

The E-Commerce Specialisation at Victoria University

As indicated earlier in the paper, e-Commerce specialisations have covered a number of areas related to all types of business activities. These topics include by definition the use of technologies to enhance business-to-business and business-to-consumer relationships, and to improve internal business operations. In parallel with these applications, Internet technologies are increasingly being used for business research and communication.

The Electronic Commerce specialisation at VU has been designed to prepare students for the management, application and use of e-Commerce and related technologies. During their studies, students will encounter technologies relating to the Internet, intranets and extranets. The specialisation will also cover use of the Internet as a business research and communications tool.

After completing the specialisation students will be better able to make informed decisions concerning Electronic Commerce and its associated technologies. The specialisation consists of the following four subjects. In examining these subjects, the reader should remember that other core MBA subjects cover the areas of law, management, accounting, economics, business statistics and marketing.

Management Information Systems

This subject is the core information systems subject in the MBA. It introduces a broad range of topics relating to the field of information systems, highlighting the link between IT and the business. Theoretical issues are reinforced through laboratory work that leads to the design and implementation of small systems.

Internet Commerce

This subject provides an overview of how business is conducted over the Internet, along with the technological and infrastructure requirements and business and management issues relating to Electronic Commerce. It is the introductory e-Commerce subject.

With an increased adoption of the Internet and the World Wide Web as a medium of doing business, the subject introduces the Internet/Electronic Commerce practices and its emerging trends and features. It provides an overview of how business is conducted over the Internet, the technological and infrastructure requirements, and business and management issues in relation Internet/Electronic Commerce.

On completion of this subject, students are expected to be able to:

- Appreciate how business is conducted via the Internet.
- Understand the technological and infrastructure requirements of Internet Commerce.
- Understand the business and management issues pertinent to Internet Commerce.
- Recognise the stakeholders in Internet Commerce, their capabilities, limitations and the strategic convergence of technology and business.

Internet Technologies in Business

The aim of this subject is to examine ways that a business can use Internet technologies for communication and business research, as well as technologies such as intranets and firewalls to improve its own business processes and store business documents. It examines the use of intranets and extranets in business, the use of the Internet for business research, and the use of the Internet for business communication. Its aim is to examine the ways that a business can use Internet technologies to improve its own business processes, find business information and improve communication by improving the information richness

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of the communication and lowering communication costs. The subject endeavours to introduce those areas of use of Internet technologies that are not widely taught in other specialisations, but are widely used in the business world. Topics covered include:

- Uses of intranets in business. Intranets and document storage; using intranets for internal business processes; intranets and data storage; extranets as an extension of intranets for selected external partners; business benefits including efficiency improvements, cost savings, knowledge sharing and improved partner relations.
- The Internet and business research. Categories of business research; using search engines; business benefits including cost savings, improved decision making, competitive advantage.
- Internet communication. Electronic mail/ attachments; video conferencing; whiteboards; bulletin boards; newsgroups; business benefits such as efficiency improvements, cost savings, knowledge sharing, improved partner relations.

On completion of this subject, students should:

- Appreciate and understand the technologies that comprise an intranet.
- Appreciate and understand the business benefits provided by the technologies that comprise intranets and extranets.
- Be able to select when it is appropriate to use an intranet to store documents within the organisation.
- Be able to conceptually design a usable, easily maintained intranet for document storage and retrieval.
- Be able to appreciate the design and implementation decisions behind implementing business processes with the aid of an intranet.
- Appreciate and understand the business benefits that can result from using the Internet for business research.
- Understand and be able to apply the types of methods that can be used to retrieve business information via the Internet.
- Appreciate and understand the business benefits that can result from using the Internet for business communication.
- Understand evaluate and be able to implement a variety of Web based communication tools for the advantage of the organisation.

Building Internet Commerce Systems

The subject examines the use of HTML and other markup languages, design issues, scripting and programming for the Internet, Web databases, implementation options, and the future of Internet design. It aims to engender in the student a detailed understanding of the complexities of the design and development of Web sites for a commercial environment. Web sites are becoming more and more complex and a secondary aim of this subject is for the student to be able to utilise existing resources to create online applications.

The subject introduces students to the theory and techniques of the Internet, proceeds through the levels of Web site design sophistication to the point where they will be expected to design user-friendly Web applications of relative complexity. It also examines connecting to the Internet, the use of HTML and other mark-up languages, design issues, scripting and programming for the Internet, Web databases, implementation options, and the future of Internet design.

On completion of this subject students should:

- Appreciate and understand the technologies that comprise the Internet.
- Be able to select the appropriate method for “publishing” a Website.
- Have an appreciation of the standards process upon which the Web is based.
- Be able to appreciate the design and implementation decisions behind the development of business applications for the Internet.
- Be able to understand the complexities of designing Web-based applications.
- Have an understanding of the limitations of graphical design for the Web and be able to work within these limitations.
- Be able to design usable, easily maintained Web-based systems.
- Understand the theory behind aspects of Web site design.
- Using an informed decision process be able to select the right tool for the job.
- Be able to utilise the resources of the Web to find and appropriately modify and employ reusable resources.

Discussion

The core subject in the course, *Management Information Systems*, covers aspects of marketing on the Internet as well as basic data communications. The subject *Internet Commerce* examines basic e-Commerce business models and applications. These areas showed out in the specialisations listed in Table 1 as being the most common. The subject *Internet Technologies in Business* examines other uses of Internet technologies that are not necessarily taught in other courses, but form a vital part of businesses today. The final subject, *Building Internet Commerce Systems*, examines the complexities of web design, with a view to providing students with skills in these areas.

Conclusion

MBA specialisations are the most popular ‘extra’ in modern day Australian MBA courses and also in many courses around the world. e-Commerce is a very popular MBA specialisation. This paper has examined the content of a number of overseas and Australia-based MBA programs and looked at the viability of e-Commerce specialisations. In light of this, the structure of the e-Commerce MBA specialisation at Victoria University is discussed. The specialisation covers the areas that seem to be the core of other e-Commerce specialisations, as well as introducing new topics that the developers see as being important to the employability of the e-Commerce MBA graduate.

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Biography

Arthur Tatnall is a Senior Lecturer in the School of Information Systems at Victoria University in Melbourne, Australia. He holds bachelors degrees in science and education and a research master of arts in which he explored the origins of business computing education in Australian universities. His PhD involved a study in curriculum innovation in which he investigated the manner in which Visual Basic entered the curriculum of an Australian university. His research interests include technological innovation, information systems curriculum, Visual Basic programming, project management, electronic commerce, and information technology in educational management.

Chris Groom is a senior lecturer in accounting at Victoria University. He is currently the University's MBA Course Director and coordinates MBA programs for the University in China, Bangladesh, Singapore and Melbourne Australia. He has many years tertiary teaching experience in a number of countries and has particular research interests in international education and the development of the accounting profession in China.

Stephen Burgess is a senior lecturer in the School of Information Systems at Victoria University, Melbourne, Australia. He has a bachelors degree in Accounting and a Graduate Diploma in Commercial Data Processing, both from Victoria University, Australia; a Master of Business (Information Technology) from RMIT, Australia and a PhD from Monash University, Australia in the area of small business to consumer interactions on the internet. His research and teaching interests include the use of IT in small business, the strategic use of IT, B-C electronic commerce and IT management education.