

# **Business Models and Electronic Commerce in the Travel Industry**

Helen Bull  
Craig Standing

School of Information Systems  
Victoria University of Technology

School of Management Information Systems  
Edith Cowan University  
Email: c.standing@ecu.edu.au

## **Abstract**

*The Internet is often attributed with shaping new business models and making a substantial impact on existing business models. This paper examines the issues surrounding e-commerce and its impact on business models. Most studies on the topic look at one dimensional views of the business, typically either from a marketing or organisational structure perspective. However, business models are made up of the complex interaction of a large number of functional components. These issues are discussed with reference to the travel agency sector. There is sufficient evidence to suggest that the Internet is making a significant impact on the travel industry. Travel agencies in particular are perceived as being under threat of disintermediation from airlines and travel wholesalers marketing directly to consumers via the Web. We suggest that single outlet travel agencies, particularly those without a specialist niche, in reality have little to gain from an on-line presence beyond a basic advertisement model. Virtual travel agencies have an advantage that all components of the business model have been designed with the on-line channel in mind. Travel agency groups and franchise models are in a difficult situation. Their size and business position puts pressure on them to develop effective complex e-commerce operations without affecting their off-line core business.*

## **Keywords**

Electronic commerce, travel agencies, business models.

## **INTRODUCTION**

The growth of electronic commerce has generated many references to the concept of business models. In particular, researchers and practitioners have proposed that e-commerce has been responsible for the emergence of new forms of business models and that these models are the driving force in the “new economy”.

This paper describes and analyses the multi-faceted issue of business models, particularly in relation to e-commerce, with an aim of clarifying the impact that e-commerce is making on business models. As a result of the work it is envisaged that companies will be able to better re-structure and leverage the potential of e-commerce. The travel industry is used to illustrate the variety of e-commerce enabled business models and options that exist.

## **BUSINESS MODELS AND E-COMMERCE**

Much of the discussion surrounding the growth in e-commerce has referred to the emergence of new forms of business models. These on-line models are generally distinguished from off-

line models either because they are significantly different in business nature or because of the fact they make use of the Internet and on-line communications technology.

This paper argues that the term *business model* has been overused to the extent that it is now confusing the real and potential contributions that the Internet can make in business and clouding the issues related to planning, design and evaluation of e-commerce applications. The confusion is a problem since it leads to unrealistic expectations and can lead to the development of ineffective systems.

What follows is a detailed analysis of e-commerce related business models with the aim of classifying the Internet's contribution to business.

### **Web Site Functionality**

A large number of researchers have attempted to classify e-commerce business models by examining Web site functionality as a basis. These classifications and "models" abound in the literature and typically include such types as: the advertising model, the on-line brochure, and transaction based systems.

A classification that incorporates three levels of business process, that of promotion, provision and processing with each level acquiring an increase in complexity and functionality has been suggested as a framework for the adoption of Internet commerce by a business (Burgess & Cooper, 1999). Telstra's Small Business Index offers three different e-commerce packages that a business could adopt when contemplating I-commerce. These are very similar to the three levels of business process and consist of:

- The Electronic Brochure where products and services only are displayed on the Internet and purchases are transacted through conventional means such as by phone, fax or in person,
- The Electronic Brochure plus Ordering System where in addition to brochure information, the customer may order over the Internet but would be required to pay by conventional means.
- The Electronic Brochure, Ordering System plus Payment System which in addition to the above facilities also allows the customer to pay over the Internet (Telstra, 1998).

Overall, the proposed Web models vary in complexity and functionality. The simplest ones such as the Poster/Brochure model, provide general basic information about the product or service (Ellsworth & Ellsworth, 1996; Kirsh, 1999; Lawrence et al., 1998). Highly complex models such as the 3.5.7 model (Settles, 1997) or the Integrated Internet Marketing (I<sup>2</sup>M) model (McKeown & Watson, 1997) incorporate multi-functionality and are related to the tactical and marketing functions of the company.

### **Organisational Structure**

Organisational structure is clearly another component of a business model. The structure should facilitate the implementation of the business objectives. Flatter, network organisational structures are put forward as being able to respond more quickly to change than more hierarchical structures (Limerick, Cunnington, Crowther, 1998). Communication technologies can be instrumental in facilitating newer organisational forms. The virtual organisational form, for example, has various degrees of virtuality ranging from a virtual face to a virtual broker (Burn and Barnett, 1999) and relies upon information technologies for communication in distributed organisational environments.

## **Organisational Management**

Management approaches are another aspects of business models. They range from cautious, bureaucratic approaches where the emphasis is on accountability and procedures to highly innovative and entrepreneurial environments which require a more encouraging and tolerance of risk style (Vecchio, Hearn, Southey, 1997).

Network organisations develop strategic alliances, the executives in the organisation guide ideas through the network, most of the routine functions are out sourced, and power is an attribute of value-adding capability rather than position (Limerick, Cunningham, Crowther, 1998). The infrastructure of the organisation, or threads of the Web, are servers, client computers, faxes and satellites.

Various reports have identified the essential elements of effective network management. These are now described (Limerick, Cunningham, Crowther, 1998).

- **Responsibility of management**

Managers must take the responsibility to make things happen and link together with others. In a flatter organisational structure they cannot rely on being given direction from others.

- **Develop boundary roles**

Managers must get involved in boundary relationships. These were once the responsibility of either senior managers or people low down in the hierarchy responsible for the operations of selling and purchasing. They should be considered to be strategic focal points.

- **Develop communication systems**

Effective communication systems between the participants in the network structure are essential for developing relationships and contacts. The horizontal communication systems are especially important and should be facilitated by information technology. This IT communication technology infrastructure provides a conduit for the integration of the team, transmitting opportunities, to disseminate core values, and control.

- **Specialisation**

Managers should work out what they do best and farm out the rest. This can be done by analysing the value chain and looking for links which can be completed by others yet still retaining a profit for the organisation.

## **Distribution**

For many organisations the Web becomes just another channel for advertising, providing information or distributing a product (software). Clearly the Web has certain advantages compared with other channels in this area but this alone still does not constitute an entire business model, rather it is a variation of channel for distribution of information or software.

A component of relevance in business models is the partners involved in the transaction, hence the discussion of business to business (Extranets), business to consumer (Internet) and business to employee (Intranet) systems.

## **COMPONENTS OF BUSINESS MODELS**

For a business model to be effective it must consider most, if not all, components. The organisational strategy and objectives, however, should impact to some extent on all of the components (figure 1). Considering simply one aspect of the model, such as marketing, or organisational structure will not create an effective e-commerce business model.

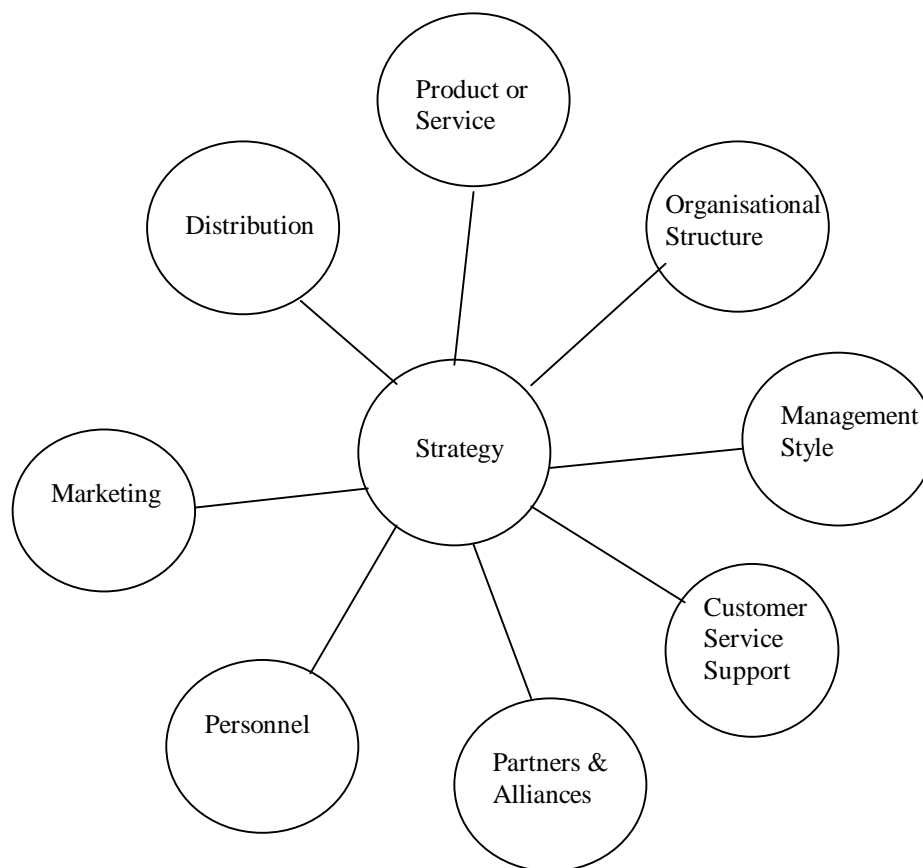


Figure 1: Key Components of a Business Model

Cisco Systems is an example of a company where the impact of the Internet permeates most aspects of the business model (Kavanagh, 2000). Cisco has grown from \$1 billion to US\$12 billion in seven years and revolutionised the way it operates by extensively employing the Internet. The strategy was to be a more responsive, faster to adapt to changes organisation. The Internet influences the components of the business model in the following areas:

- Organisational Structure: Flatter structure for faster decision making;
- Management style: Less bureaucratic as information shared on Intranet;
- Customer Service and Support: On-line ordering and support systems;
- Partners and Alliances: Extranet for supply chain management;
- Personnel: Job applications via Web, & expenses claims;
- Marketing: Internal and external marketing via Web;
- Distribution: Automatic order to distribution company;
- Product or service: product related information shared quickly around the organisation.

## **EXAMPLES OF E-COMMERCE ENHANCED BUSINESS MODELS FROM THE TRAVEL INDUSTRY**

In this section of the paper we illustrate the concept of business models tailored for e-commerce using examples from the travel industry. The Web provides both threats and opportunities, many travel agencies are still agonising over appropriate uses of the Internet (Standing & Vasudavan, 1999; Standing & Vasudavan, 2000). We use four types of travel

agencies to show the range of options open to travel agencies and to highlight that there is not just one approach open to them.

### Travel Industry Background

Strong growth of the online Travel industry has been reported by several independent studies (NUA, 1999a). The Travel Industry Association of America reported that 6.7 million US adults used the Internet to make a travel reservation in 1998. This represented a growth of 24% over the previous year. The Benchmark Group reports that France had between 2.5 to 3 million Internet users with travel sales being the top revenue generator in 1998. The revenue represented over USD23.6 million (NUA, 1999a). Equivalent figures for Australia are not available. It is forecast that the travel industry will expect to generate 35% of all online sales by the year 2002 and Inteco Research predict that online booking for holidays in the UK will generate over US660 million by 2003 (NUA, 1999a).

However the growth of Internet use for planning travel is even greater, 33.8 million US adults used the Internet for this purpose in 1998, representing an annual growth rate of 189% and 990% respectively from the previous two years. Similar growth rates are reported by Bear Stearns & Co, Forrester Research, NPD Research and Jupiter in the US and Inteco Research in the UK (NUA, 1999a).

The adoption of I-Commerce by Travel agents in Australia might be considered slow. Apart from a few large agencies such as Travel.com.au which operates as a virtual travel agency, the majority of travel agencies in Australia, and in particular those in a small business environment, currently do not have a Web presence. Table 1 identifies the number of Tour Operators and Wholesalers listed with Traveltrade (Australia) that listed their URL. Some of these are also travel agencies. Nationally, the number of tour operators and wholesalers that have a presence on the Internet is at least 101 out of a listed 327 or at least 24 % with Western Australia having the largest proportion, 36%. The second largest is Victoria, 31%. By numbers, the two largest states are New South Wales and Victoria, both of which exceeded the national average. These figures are supported by a study of one hundred travel agents in Western Australia. The study confirmed that WA has the highest incidence of Web presence (Standing et al., 1998).

State	No. Web Presence		% Web Presence
	Yes	No	
WA	10	18	36%
SA	4	12	25%
VIC	35	77	31%
ACT	0	6	0%
NSW	50	196	20%
NT	2	12	14%
TAS	0	6	0%
	101	327	24%

Table 1: Tour Operators and Wholesalers Web presence, by State

Data compiled from the 'Tour Operators/Wholesalers' section of the 1999 July-December Traveltrade Year Book

## **Independent Travel Agency**

For this example, we use a single travel agency (one retail outlet) and explore realistic options for engaging in e-commerce. If the travel agency is a general travel agency offering a wide range of travel products then one would imagine that it has no competitive advantage over other agencies except perhaps that it is in a good location with lots of passing potential customers. It is unlikely that this feature can be replicated by them on the Web. Prime real estate is not cheap on the Web, i.e. in portals or high volume traffic sites or shopping malls. If it has built up a loyal set of customers through high quality customer service that would be difficult, time consuming and so costly to replicate on the Web. The major obstacle would probably be the ability to afford a transaction based Web site of any significant use (although possibilities exist through on-line CRS), keep it up to date and promote it on the Web. Given that this is unlikely to be an option then an advertisement based site, perhaps providing information to the loyal customers who are Web savvy is the only realistic option. Even this less expensive type of site, both inexpensive in set up and maintenance, is unlikely to be visited much unless a significant amount of effort is put into promoting the site. From examination of the Web sites in this category of travel agency the Web site becomes merely a distraction, is typically out of date, and is of no real value to the company (Standing & Vasudavan, 2000).

A single travel agency that could claim a specialist service, may have something to gain by developing an online presence since it could market beyond its off-line catchment area. A Web site would also provide a medium through which to provide information on the specialist topic such as historical tours, recreational or sports related holidays (windsurfing, skiing, mountain trekking, etc.). Developing an information rich site to cater for a specialist group however is a time consuming activity. This would be an expensive option which may be difficult to recoup the costs for unless one of the employees has Web development skills and knowledge. It must be remembered that travel agencies in general operate on very small profit margins.

Both general and specialist travel agencies could gain from using the Internet by obtaining destination and tourist related information or even arranging bookings with hotels and specialist tours not provided through the computer reservation systems (CRS). However, it could be argued that many customers have access to the Internet and could perform these functions for themselves (Standing & Vasudavan, 1999).

## **Travel Agency Group**

A travel agency group, such as the RAC Travel Group, which has nine travel agencies, would need to think out its strategy more carefully. It would typically have the finances to develop a more sophisticated Web site and employ someone to maintain it. Appropriate systems could be mainly based around an advertising model, with specials and discounts highlighted, in much the same way as hard copy leaflets and posters. In addition, forms could be developed for booking package holidays and tours with payments. These are often used on travel Web sites but do not update the CRS automatically. The travel consultant would typically confirm the legitimacy of the booking and then input it to the CRS. However, real time transaction based Web sites are now accessible through the CRS such as Sabre. A link can be included from the travel agencies' Web site to the on-line CRS. The commission is returned to the travel agency and the customer deals in all other ways with the original company. A full time Web designer/developer would be able to make the site current and dynamic and spend time promoting the site on the Web.

Overall, such a move to an on-line presence would have an impact across most components of the company's business model. Depending on the success of the on-line venture such a group may decide to put more resources into its on-line activities rather than opening additional physical branches. In this respect it could impact on the structure of the group, improve customer service and support through improved communication and information, and attract new customers through the Web marketing channel. However, the core business would be the off-line business and there would be a danger in over allocating resources to the on-line channel without re-engineering their entire business strategy and model.

### **Franchise Travel Group**

A franchise travel group would typically have a large number of travel agencies. The head office could develop a sophisticated Web site to be used by all travel agencies. The customer could select one of the locations to pick up the tickets from or to liaise with and so the commission could be allocated back to the specific branch. The company could employ dedicated Web development staff and depending on the size and resources of the group compete with some of the major players in the on-line travel arena. It would be a major undertaking to develop an effective on-line presence but in some respects such companies have little choice other than to get strongly established on-line which has significant implications for all aspects of the business.

### **Virtual Travel Agency (VTAs)**

Recent years has seen the emergence of VTAs which have the potential to perform all the functions of the high street retail travel agency (RTAs) such as searching for and booking airline tickets, booking hotel accommodation and transportation off the same CRS that are used by RTAs. In addition, VTAs allow potential customers to view content rich, multimedia presentations about the destination and accommodation product before purchasing. They also allow credit card payment of purchases (e.g. Expedia.com, Travelocity, Travel.com.au).

Virtual Travel Agencies exist solely on the Web and have no traditional retail branches. They vary in the amount of information they provide, with Travelocity for example, providing extensive destination information. They clearly have the advantage of marketing to customers country wide and make extensive use of email marketing. They can localise their sites and replicate the concept around the world if they desire. The entire business model is tailored to the on-line channel and impacts on organisational structure, marketing, customer service, partnerships and alliances, and the selection and training of staff. In many respects it is a simpler business model than hybrid arrangements without the conflict between the off-line and on-line approaches.

## **DISCUSSION AND CONCLUSIONS**

Many small and medium size enterprises have been confused by options presented by e-commerce. Some of those that have not developed an on-line presence feel left out especially when all the media attention to "new economy" stocks is considered. Others have developed Web sites without seriously identifying and measuring the benefits.

The options in the e-commerce arena for travel agencies are really not that complex, although aspects of design, effort in promotion and a general enthusiasm for on-line commerce can often go along way! Table 2 summarises the key options open to travel agencies.

The options presented should be of use to companies trying to navigate the e-commerce maze. It is likely that over the next few years the travel industry sector will change

significantly (O'Brien, 1998). These changes will be driven by an increase in airlines marketing directly to the consumers, large travel companies marketing directly to consumers and the virtual travel agencies expending market share (Abels, 1999). As mentioned earlier, most traditional travel agencies operate on small profit margins and a slight drop in customers could make them dip below the line of profitability. As a result it is likely that many travel agencies will merge and the independent agent (one shop agency) will come under increasing pressure. Just how long some survive will depend on the loyalty of their customers and their abilities to add value and provide a high quality service. In relation to e-commerce these independent travel agencies lack resources, finances, trained staff, expertise and in some cases enthusiasm for the Web (Standing & Vasudavan, 1999).

	<b>Single Agency – General</b>	<b>Single Agency - Specialised</b>	<b>Travel Group</b>	<b>Franchise Group</b>	<b>VTA</b>
<b>Web Functionality</b>	No Web site Advertisement Bookings	Advertisement Potential for some bookings	Brochure Bookings Transactions	Booking Transactions	Full transaction system Information rich site
<b>Culture shift</b>	No	Partly	Partly	To some extent	Is the culture
<b>Marketing Approach</b>	Advert	Advert	Advert plus some 1-to-1 marketing	Some personalisation	Personalised 1-to-1 marketing
<b>Distribution &amp; Communication</b>	Email	Email	Email and downloadable leaflets	Email and downloadable leaflets	Email and downloadable leaflets
<b>Business-to-business</b>	Searching plus one off bookings	Searching plus one off bookings	Searching plus one off bookings	Searching plus Alliances	Searching plus Alliances
<b>Customer Service &amp; Support</b>	None (except email)	None (except email)	Email enquiries	Email enquiries	Full service and support
<b>Business model</b>	Traditional plus extra advertising channel at best	Hybrid	Strong advertising channel	Hybrid model	Full on-line business model
<b>Risk of Competing Model</b>	Low	High	High	Medium	Low

Table 2: A Summary of E-Commerce Options for Travel Agencies

It may be assumed that one type of Web model leads onto a more sophisticated model as a company becomes more experienced in the area (Lane & Cavaye, 1999). This may not be the case, particularly for the small independent agencies, for the reasons mentioned above. It may be the case for the travel agency groups as they go through the learning curve and build up expertise.

Our current research is evaluating the benefits derived from the various forms of business models employed with an e-commerce component. Traditional accounting methods such as return on investment may not be appropriate, especially for the larger travel agencies that invest heavily in e-commerce. Some argue that a move into e-commerce provides options for the future since a company is better placed to take advantage of new business options related to the Web when they arise rather than starting from scratch (James, 1999). This argument may not have much value for the smaller travel agencies who outsource all of the development and maintenance and so do not build up any real expertise.



## REFERENCES

- Abels, J. M. (1999). Those Friendly Skies Dump on Agents For 3rd Year in a Row. *Travel Trade Online*, Oct 18.
- Burgess, L., & Cooper, J. (1999). A Model for Classification of Business Adoption of Internet Commerce Solutions. *Twelfth International Bled Electronic Commerce Conference*, 1, 46-58.
- Burn, J., & Barnett, M. (1999). Communicating for Advantage in the Virtual Organization. *IEEE Transactions on Professional Communication*, 42(4), 215-222.
- Ellsworth, J. H., & Ellsworth, M. V. (1996). *The New Internet Business Book*. NY: John Wiley & Sons, Inc.
- James, D. (1999). Accounting for the net: beyond the balance sheet. *Journal of Australian Society of Certified Practicing Accountants*, 69(11), 22-23.
- Kavanagh, J. (2000). The Net Changes Everything. *The Computer Bulletin*, Series V, V2, Part 3, pp. 28-29.
- Kirsh, S. (1999). *Five Online Business Models*, [Web]. Available: <http://www.color1.com/3.htm> [2000, 17 March].
- Lane, M. S. & Cavaye, A. L. (1999). The Convergence of IT and Marketing in the Ongoing Development of an Internet Marketing Web Site. *Proceedings of the Australian Conference on Information Systems*, Wellington, New Zealand.
- Lawrence, E., Corbitt, B., Tidwell, A., Fisher, J.-a., & Lawrence, J. R. (1998). *Internet Commerce - Digital Models for Business*. Brisbane: John Wiley & Sons.
- Limerick, D., Cunningham, B., & Crowther, F. (1998). Managing the New Organisation. Business and Professional Publishing.
- McKeown, P. G., & Watson, R. T. (1997). *Metamorphosis: A Guide to the World Wide Web & Electronic Commerce*. N.Y.: John Wiley & Sons, Inc.
- NUA, I. S. (1999a). *How many online?*, [Electronic]. Available: <http://www.nua.ie/surveys/index.cgi> [1999, 14th April].
- NUA, I. S. (1999b). *How many online?*, [Electronic]. Available: <http://www.nua.ie/surveys/index.cgi> [1999, 15th June].
- O'Brien, P. (1998). Electronic commerce, the Internet and travel cybermediaries. *Proceedings of the Australian conference on Information systems*, pp462-473.
- Standing, C. Vasudavan, V. (2000). The Travel Industry and Internet Commerce: Lessons from Australia. *Journal of Tourism & Recreation Research* (Forthcoming).
- Standing, C., & Vasudavan, T. (1999). Internet Marketing Strategies used by Travel Agencies in Australia. *Journal of Vacation Marketing*.
- Standing, C., Vasudavan, T., & Borbely, S. (1998). A Study of Web Technology Diffusion and Planning in Travel Agents. *Proceedings of Ninth Australasian Conference on Information Systems*, 2, 624 - 636.
- Settles, C. (1997). *The 3.5.7 for Maximising Your Business Online*, [Internet]. Available: <http://www.successful.com/357artic.html> [2000, 22 Feb].
- Telstra. (1998). Small Business Index - Special Report. , 32.
- TravelTrade (1999). Traveltrade Year Book (July-Dec).
- Vecchio, R. Hearn, G. & Southey, G. (1997). Organisational Behaviour. Harcourt Brace.

## COPYRIGHT

Helen Bull, and Craig Standing (c) 2000. The authors assign to ACIS and educational and non-profit institutions a non-exclusive licence to use this document for personal use and in courses of instruction provided that the article is used in full and this copyright statement is reproduced. The authors also grant a non-exclusive licence to ACIS to publish this document

in full in the Conference Papers and Proceedings. Those documents may be published on the World Wide Web, CD-ROM, in printed form, and on mirror sites on the World Wide Web. Any other usage is prohibited without the express permission of the authors.