

December 2003

Sophistication of Online Tourism Websites in Hong Kong: An Exploratory Study

Alia Limayem
City University of Hong Kong

Mathew Hillier
City University of Hong Kong/University of South Australia

Douglas Vogel
City University of Hong Kong

Follow this and additional works at: <http://aisel.aisnet.org/amcis2003>

Recommended Citation

Limayem, Alia; Hillier, Mathew; and Vogel, Douglas, "Sophistication of Online Tourism Websites in Hong Kong: An Exploratory Study" (2003). *AMCIS 2003 Proceedings*. 142.
<http://aisel.aisnet.org/amcis2003/142>

This material is brought to you by the Americas Conference on Information Systems (AMCIS) at AIS Electronic Library (AISEL). It has been accepted for inclusion in AMCIS 2003 Proceedings by an authorized administrator of AIS Electronic Library (AISEL). For more information, please contact elibrary@aisnet.org.

SOPHISTICATION OF ONLINE TOURISM WEBSITES IN HONG KONG: AN EXPLORATORY STUDY

Alia Limayem

City University of Hong Kong
isalya@is.cityu.edu.hk

Mathew Hillier

City University of Hong Kong/
University of South Australia
mathew.hillier@unisa.edu.au

Douglas Vogel

City University of Hong Kong
isdoug@iscityu.edu.hk

Abstract

This paper presents the results of an exploratory evaluation of the e-business readiness of tourism operators in Hong Kong. The paper draws upon the web design, e-business, information systems, and tourism and hospitality management literature to show that an interpretative evaluation process can be useful in moving towards a framework for the evaluation of the sophistication of the online operations of organisations involved in the online tourism sector. The results of a preliminary evaluation of eighty online tourism operators in Hong Kong is presented and the implications for practice and further research are discussed.

Keywords: Website evaluation, e-commerce, Internet, tourism industry, Hong Kong, China, interpretative, exploratory study

Introduction

In the last decade the Internet has greatly impacted the way in which businesses compete and carry out their operations (Porter 2001). Technologically enabled changes have been a hallmark of the travel industry, with the early adoption of technological systems, such as SABER. In particular, the adoption of the Internet has accelerated the rate of change in the travel industry (Weber & Roehl 1999). This has led to changes in the way tourism organisations market and distribute their products in the marketplace (Buhalais & Licata 2002). Today the web based travel market is estimated to be worth US\$8.3 billion in the Asia Pacific alone (Travelbiz 2003) and represents one of the largest segments of business to consumer electronic commerce. The Asia Pacific market currently represents the fastest growing segment, with China showing the largest growth figures. It is acknowledged that the historical background of the Hong Kong market makes its development different from that of Mainland China, however as these two markets become increasingly integrated over time, the more advanced state of the market in Hong Kong could provide some valuable indications of what is to come for the wider China market. Tourism is considered a main contributor and shows opportunity for the future development of Hong Kong's economy. In Hong Kong there are approximately 1300 registered tourism businesses (TIC 2003) of which many are Small and Medium Enterprises (SMEs).

The business to consumer market online has seen the rise of large online-only tourism operators (Cornnolly, Olsen & Moore 1998), such as Expedia, Yahoo, Travel, Travelocity, Orbitz, Uniglobe.com and Trip.com and consolidation of business to business systems into four main players (Kracher 1996, Truitt, Teye & Ferris 1991). This has meant increased competition for the traditional distributors of travel products, namely SMEs. Furthermore, a number of significant changes are taking place in the travel industry in the form of changing revenue sources, such as the withdrawal of airline based commissions, and the entry to the local market place of the large online-only operators, such as Expedia (SCMP 2002). This has greatly increased the pressure for local Hong Kong players to develop increasingly sophisticated online operations to compete and maintain their position in the marketplace. Hong Kong's electronic services in general have continued to progress well during the last decade and have maintained pace with other similar economies within the Asia Pacific region. However, many in the SME sector have lagged

behind. This paper provides an overview of the current state of play with regard to the sophistication of the online travel agencies in Hong Kong.

Website Sophistication

A number of factors were taken into consideration in the assessment of the sophistication of tourism web sites in Hong Kong including, interface, content, e-business services and trust as it relates to 'organisational' matters. These factors were drawn from complementary studies in the disciplines of tourism and hospitality management (Murphy et al. 1996; Bell & Tang 1998; Countryman 1999; Chung & Law 2003; Morrison et al. 1999; Jeong & Lambert 2001; Doolin et al. 2002). The sophistication factors are further explained with reference to their respective disciplines in the following review of literature.

Interface Usability

The usability of a user interface refers to the fluency or ease with which a user is able to interact with a system without 'thinking' about it. This implies they can do so 'naturally' or without feeling 'discomfort', either physical or mental. This is in line with the definition of usability offered by the International Organisation for Standardization, which is: "The effectiveness, efficiency, and satisfaction with which specified users achieve specified goals in particular environments" (ISO 1998). Studies relating to the user interface of computers have been undertaken since the early 1960's (Hewett et al. 1996). Vast ranges of studies have appeared in the specialist HCI journals. A small sample of recent work includes: Sutcliffe et al. (2000), John and Kieras (1996), Nielsen (1990a), and Shneiderman (2000). Research has also been published in general information systems journals, examples include work by: Davis (1989), McKeen and Guimaraes (1994), Etezadi-Amoli and Farhoomand (1991), Doll and Torkzadeh (1998), Gerlach and Kuo (1991) and Doll et al (1995), the latter usually taking the form of user satisfaction. In recent years attention has turned to newer forms of information systems, such as, the Internet and World Wide Web. Some notable pioneers are, Nielsen (2000), Shneiderman (1997) and Mayhew (1999), all of which examine factors relating to design, layout, content and navigation structure.

E-Business Services

In examining web sites and their use of appropriate e-business services we can look to the purpose that those services should fulfil. The task purpose of both the site and the user, that is, the site exists to fulfil a purpose – a purposive system, and the user undertakes purposeful action – (Checkland 1981) will impact the usability of a given site. Differing types of user interface elements and site structure will be required depending upon the task purpose of the site and the task purposes of the user at given points in time. A distinction should be made between a user's purposeful action and site purpose, because in order to have a successful interaction, these need to be complementary. However, user purposes are not fixed over time, because users will have different purposes each time they utilise the web. For example, a user might be finding the cheapest copy of a book one day, then the next day be paying a bill. It is thus proposed that the level of tolerance a user has for provision of certain e-business services will vary (in addition this tolerance would also vary over time – see phases of purchase below). This is due to the level of information and action required in order to complete a task, along with tolerable levels of inconvenience, relating both to service quality (Webb & Webb 2002) and the time taken to complete the purchase (i.e., if the user must go offline to do so). For example, successfully conducting a banking transaction would rely less on the information about various options of services and more upon successful and safe operation on the transaction system. This compares to something like purchasing a holiday where the information content in making the right choice is important (of course once decided, the booking and payment system should also be reliable and safe). It also follows that the site should support the phases of a purchase (Saeed, Hwang & Grover 2002). This includes the needs and wants identification (the type of holiday desired), the search and matching (what type of holidays are available, where they are available, when it can be carried out, and how much it will cost, which ones meet needs and wants), purchasing (carrying out the booking and paying the deposits and or final instalment) and after sales support (additional destination information, changes to itinerary etc). Given that each stage of a purchase has different purposes and tasks associated with it, the site should provide an adequate range of e-business services to support the customer's action to completion.

Organisational Related Trust

Trust is as important for online e-business as it is for off-line, in fact probably more so, as customers are not able to 'see' whom they are dealing. Consumers increasingly wish to buy from companies with trusted Websites (Shankar, Urban & Sultan 2002).

Trust online has changed over time from being strongly related to security and privacy issues, to become a multi-faceted and complex concept that also includes such things as reliability and credibility, association, brand recognition and elements of site design and presentation. Trust is also related to the reputation of offline operations.

Research Approach

An exploratory study was conducted using an interpretative stance involving the evaluation of eighty web sites by two researchers. This involved reviewing sites and other third party online information regarding travel sites and telephone contact with the Travel Industry Council (TIC) of Hong Kong. This study fits within a wider research program into the e-business readiness of tourism operators in Hong Kong. Examination of the websites of tourism operators enabled an understanding of the status and sophistication of online operations in the local industry. As such, the results presented in this paper represent the first 'cycle' of the wider investigation that aims to cover the e-business capabilities and strategies of firms and the industry sector from suppliers to end consumers as well as policy makers.

The evaluation of Hong Kong travel agency web sites was undertaken and the results represented in charts that were generated to provide a bigger picture of the overall performance of the travel industry online in Hong Kong. This information was then analysed using an interpretative approach similar to that used in a study by Wan (2002). The web sites used in the preliminary evaluation were chosen based on the listing provided on the Hong Kong Travel Net website (HKTIVL 2003). All agents listed on this site were members licensed with the TIC, as was evident by their registration number next to their listing. The agents listed on the HKTIVL site had to pay a listing fee to appear and therefore represent at least those agencies that have made a minimal effort to promote their web site. This list contained 137 entries. From this list, sites were further filtered out that were under construction, were not accessible or were not based in Hong Kong. Fifty seven sites were removed in this way leaving a list of 80 travel agents that had a working web presence based in Hong Kong.

In this study, analysis was carried out to compare the travel agencies according to the sophistication of their web sites, which is a source of information regarding their financial potential, popularity (customer interaction) and significance (Bacchus & Molina, 2001). In order to assess the web sites on all the criteria, we used top online travel services noted by Goldsborough (2001) as a benchmark. These were: Expedia, Yahoo. Travel, Travelocity, Orbitz, Uniglobe .com, Trip.com, Biz. Travel and Priceline. These websites were marked and scored by Mantravadi (2001). Each web site was rated on a scale of 0 to 22 on all the criteria listed below (22 = highest score; 0 = Lowest score). This was broken down into subsections assessing the ease of use of the interface, the content and the variety of information the level and types of e-business services adopted by the travel agencies, and the likely levels of trust inferred from a number of organisational factors. It should be noted at this point that this set of evaluation criteria was not intended to represent a 'measure' of web site performance in a positivist sense, but rather a set of points to consider when evaluating each site. Thus the results and charts presented in this paper provide a summary of the relative level of performance in the industry.

Evaluation Criteria

The web site evaluations were based on a range of factors as utilised in studies by Wan (2002), Chung & Law (2003), Morrison et al. (1999), Jeong & Lambert (2001), Doolin et al. (2002).

Navigation	Navigation in this context means the direction and the 'findability' of major features and information. Sites that are difficult or arranged in an illogical manner are harder and more frustrating to use, meaning that customers are unlikely to return. Since one of the primary aims of a web site is to provide information for its users, the major categories of information should be easily located (Nielsen 2000). Thus the navigation flow should be clear and logical. Content should be grouped under headings or labels that are representative. That menu labels should use common words, for example, 'Hotels' would not be labelled 'bungalows' or other such non-standard usage.
English language support	This means that the site provides an English version in addition to the default Chinese version, as all travel agent sites in Hong Kong would have Chinese as their base operating language for their web site.) The addition of English provides an extra service and widens the potential market for the business.
Multiple ways of access	This pertains to flexibility of accessing content by providing multiple (more than 1) paths to major categories or items of information. This can be done using site maps, in-text hyperlinks, menu structures, search engines. Providing multiple paths allows for the different search strategies of users (Nielsen 2000).

Breadth of topics	This relates to the comprehensiveness of the information provided, that is, it provides the 'answers' to the majority of questions that might arise in the mind of a potential and current customer.
Orientation	This means that the user can see where in the information space they are located. It means that the 'you are here' indicators are built into the navigation labels and icons (Rosenfeld & Morville 1998). This also includes having page titles and site titles so that users can identify when they have moved in the site.
Depth of information	This checks whether the detail of information provided in each topic area is complete; for example, that under a listing of hotels, the majority of hotels in Hong Kong would be listed, not just one or two.
Organisation	This relates to the structure and organisation of graphical elements of the web site including layout of pages and positioning of graphics such that the site has a professional and polished appearance. Uniformity of design re-enforces ease of use, as users do not have to 're-learn each new page in the site' (Nielsen 2000). Design consistency provides users with an awareness that they are still on the same site and have not gone elsewhere when clicking links. A consistent design also provides for an image of professionalism reinforcing integrity and reliability, particularly important since the web site is in effect the 'store front' of the organisation, providing the user with the only 'first impression' of the organisation.
Clarity	Simplicity and Transparency of the written content. Using straight forward language and presentation of text such that it is readable – i.e., that backgrounds or colours do not make text difficult to read. Avoiding 'marketese' (Nielsen 1997) allows the user of the site to quickly absorb information. This is particularly important when clients may be relying on a second or third language to interpret information on the site.
Currency of written content	Evidence that the web site is kept up to date, such as 'last updated' on the web site. The site was considered up to date if material was less than 3 months old. Given the seasonal nature of the travel industry, this seems to be appropriate. In addition there should be no out of date information (e.g., last year's specials) on the site. This re-enforces integrity and reliability of the information in the site (Nielsen 2000, Rosenfeld & Morville 1998).
e-mail contact	The ability to contact the website owners for further information. This re-enforces the relationship between customers and the service provider. The use of e-mail represents a basic e-commerce capability.
Online booking	Online reservation capability can capture both types of customers: those that are impulse buying or those that have made up their mind. If the site relies solely on off-line methods for conducting bookings and transactions, they risk losing the customer, as customers may lose the urgency to purchase or find a better price between the time they see the site and the time they get around to contacting the organisation offline. The payment-handling criterion below represents a higher level of sophistication over that of online booking.
Personal offline contact	This provides the ability for customers to contact the organisation offline should they desire to do so. It provides an option for the organisation to capture customers who may lack the confidence or ability to use online booking and payment systems. Personal contact means via phone or face to face at a physical shop front.
Payment handling	On-line Payment is a necessary feature in order for customers to complete the purchase cycle, without resorting to offline means. Although forcing the customer to move offline increases the risk of the sale being lost is increased, providing an online payment mechanism alone will not guarantee completion of the sale. Other issues such as trust, fear, and ability (both of the customer to comprehend what to do and ability - as in having the necessary credit card) also play a role in a customer's decision to utilise a payment system.
eCRM	Electronic Customer Relationship Management. Customisation capabilities are evidence that some form of eCRM systems are being used to provide targeted offerings to customers, to track preferences and previous purchases.
Online promotion	This means that the organisation offers discounts or special promotions to clients purchasing or booking online.
Special features	This may include an Auction where the customer sets the price with service then provided accordingly. Discussion Forum: for customer-to-customer discussion. A 'Last Minute Discount' where excess capacity is sold off at the last minute.
Credibility/reliability	Perception of the general reliability of the agent as exhibited through the website and resultant confidence in credibility.

Certification displayed	Certification: Official Recognition (license) from an appropriate travel body. In Hong Kong this means the travel organisation will be registered with the Travel Industry Council (TIC 2003). Displaying such credentials on the web site provides re-assurance for customers as to the reliability of the service provider.
Links to other organisation	Links to other organisation Business to Business (B2B) provides re-enforced integrity. By linking to other known organisations, customers may conclude that the organisation has reliable and competent business practices. This is trust by association.
Security/privacy protection	this includes statements on the site about the security measures used and whether privacy policies apply to personal information.
Online reputation	This is an indication that the site is known online. Third party reference points are used to contribute to the judgement.
Brand recognition	Historic, notable and significant. Recognised brands with a good reputation lead to higher trust by consumers.

Results and Discussion

Figure 1 summarizes the ratings of the 80 websites on all of the 22 criteria used in our study. As we described above, each website was analysed and compared to the benchmark sites from Goldsborough (2001). Our findings show that, although the HK websites scored well on certification, e-mail contact and ease of navigation, they were rather weak in terms of providing special features (such as last minute discounts, Auction and Discussion Forums), enhancing their online reputation, providing e-CRM capabilities and handling online payments. Figure 1 illustrates the frequency distribution of the overall rating of all websites evaluated in this study. A score of 22 implies that the website is comparable to the benchmark sites. Out of the 80 sites included in this study, very few had the full range of features typically found on the benchmark sites. The majority of sites appeared in the mid range of scores with 85% scoring between 5 and 16. A mode score of 13 occurred with 12 sites, while the mean score was 11.4 with a standard deviation of 3.8 and a median of 12. Additionally, only 8 sites (10%) scored 17 or higher out of a perfect score of 22, with the highest score being 19 for 2 sites. The main conclusion that can be drawn from this overall rating is that with the exception of a few cases, the majority of HK travel agents still have considerable room to improve their websites by carefully examining the benchmark websites and by attempting to included some of the popular features. In the following section, we will discuss the results of website rating with regard to specific features.

Figure 2 presents a summarization of the number of websites that scored in each subpart of each major category. For example, only 21 websites out of the 80 evaluated had significant levels of brand recognition. On the other hand, as might be expected, virtually all of the websites had utilised e-mail contact in terms e-Business Services but almost none had any support for special features such as auctions or discussion forums. The major categories will be explored in more detail in the following paragraphs.

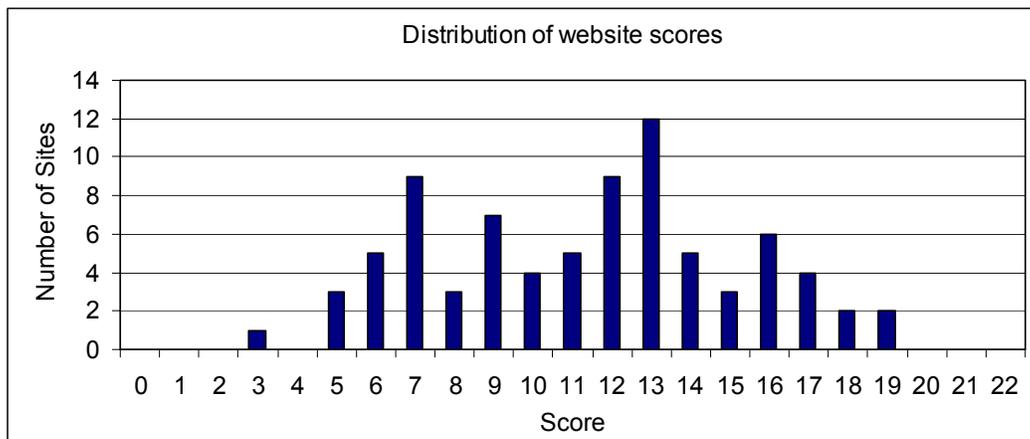


Figure 1

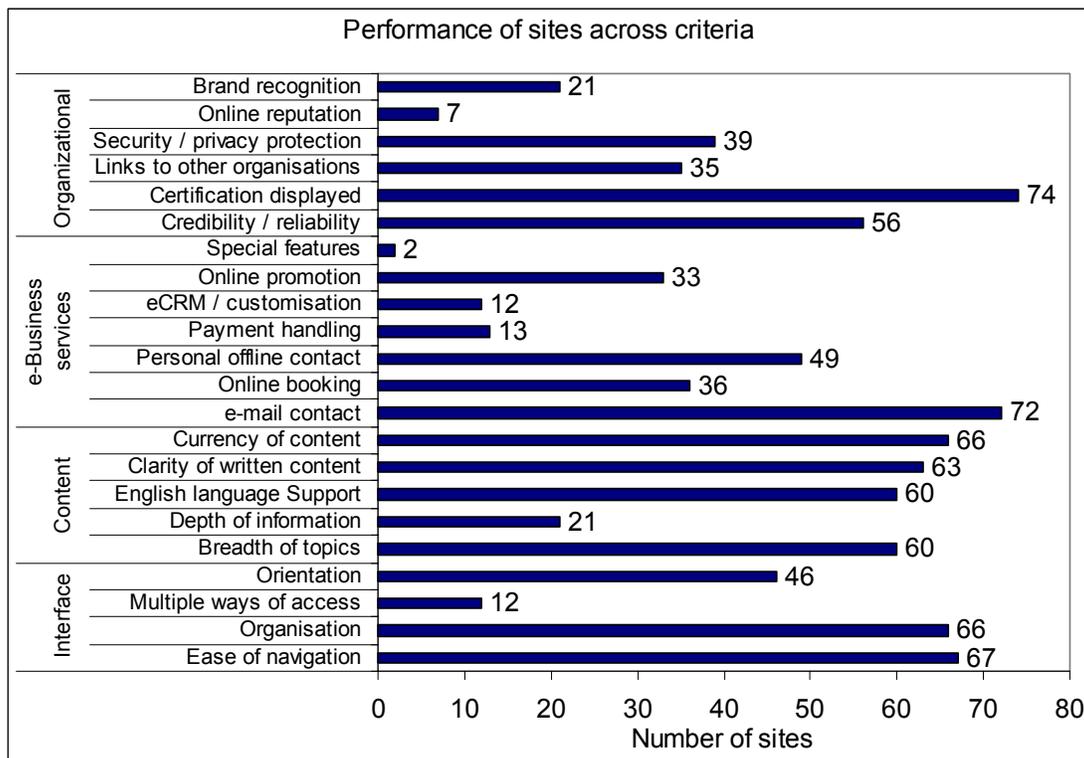


Figure 2

Website Interface Factors

As described above, the interface of each website was rated on a scale ranging from 1 to 4. A perfect score means that the website compared to the top ranked sites in terms of Ease of Navigation, Organisation, Information Access and Orientation. Figure 3 shows the frequency of the interface ratings. The results indicate that 6 out of the 80 studied websites achieved a perfect score of 4 and consequently match the quality of the benchmark sites. It is also important to note that 38 sites (47%) rated 3 (the average score being 2.3), most of these missing out on a 4 because of a lack of ‘multiple ways to access information’. This probably due to the smaller size of the sites under examination when compared the benchmark sites which were generally much larger and complex in their structure. However, 45% of sites scored 2 or less. The interfaces of these websites were found to be poorly designed and did not respect the well-known design guidelines in terms of ease of navigation and consistency. In conclusion, our analysis clearly show that the interfaces of the majority of the websites analysed can benefit from a significant facelift. Here again, the interfaces of the top-ranked websites should serve as an example to be used when redesigning the interfaces of the HK websites.

Website Content

All the selected 80 sites were benchmarked against top-ranked travel agency websites in terms of the quality of their content. Specifically, we evaluated the following features of each website: Depth of Information, Quality and level of details, Language Support, Clarity, Breadth topics and Currency of the content. Figure 4 reflects the frequency of the ratings relative to the websites’ content. Our analyses showed that 10 sites achieved a perfect score of 5. A majority of the sites (67%) were attributed a score of 3 or 4, representing moderate level of performance (as was also evident with the average score being 3.4), while 16 sites received a score of 2 or less. These findings suggest that the designers of the HK travel agency websites should try to improve the content of their websites. For, example the content of several websites had not been updated for several months. Such a weakness could seriously jeopardize the survival of these websites. Similarly, several websites in this study included very confusing, unclear and vague information. We strongly recommend that HK travel agencies pay more attention to the quality and currency of the content provided in their websites. In other words, there is significant room for improvement on this important site feature. In addition, several sites did not support any languages other than Chinese. This is contradictory to the image that the HKSAR government portrays as a gateway to the world and as an international city.

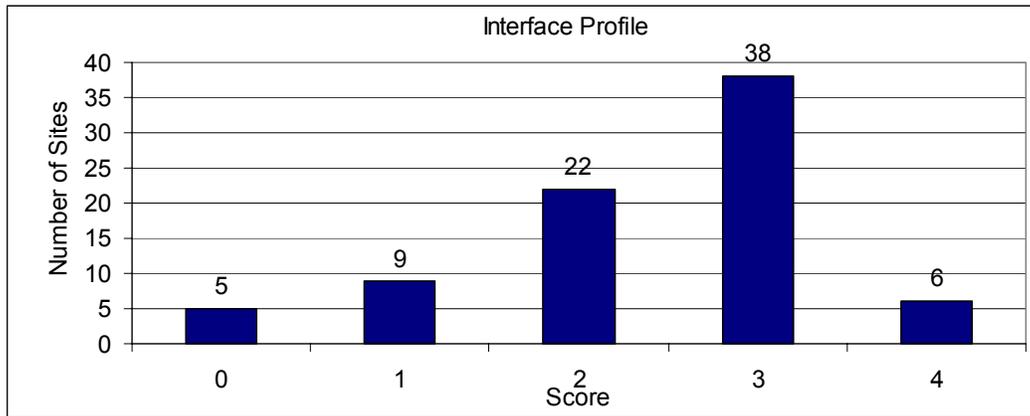


Figure 3

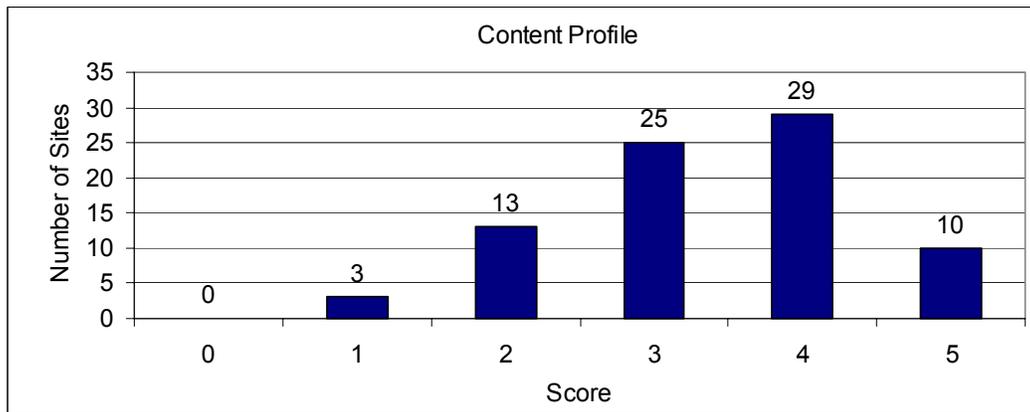


Figure 4

E-Business Services

Figure 5 show the frequency distribution of the rating of e-business services provided by the websites. Each website was evaluated on the extent to which it provided the following services: e-mail contact, On-line bookings, Personal contact, On-line Payment, e-CRM and special features (On-line Discussion Forums, Auctions and Last Minute Discounts). The results showed that no website scored 7 (the perfect score in this case). Moreover, the majority of the websites (67%) scored less than 4, with an average score of just 2.7 across all the sites. This indicates that the main weakness revealed by our study lies in the inability of HK travel agencies websites to provide value-added services to their customers. In other words, the majority of the websites looked more like static information repositories and did not provide surfers with any interactivity whatsoever. As customers become more sophisticated and more demanding, they look for one-stop websites from which they can gather useful information, ask questions, make on-line reservations and make the payment. Our results lead us to believe that the majority of HK travel agencies are very far, to say the least, from being competitive on this front. We recommend that managers of these agencies rethink their on-line strategies by incorporating more on-line features to attract a higher number of on-line consumers looking for the one-stop concept that provides for a complete purchasing cycle.

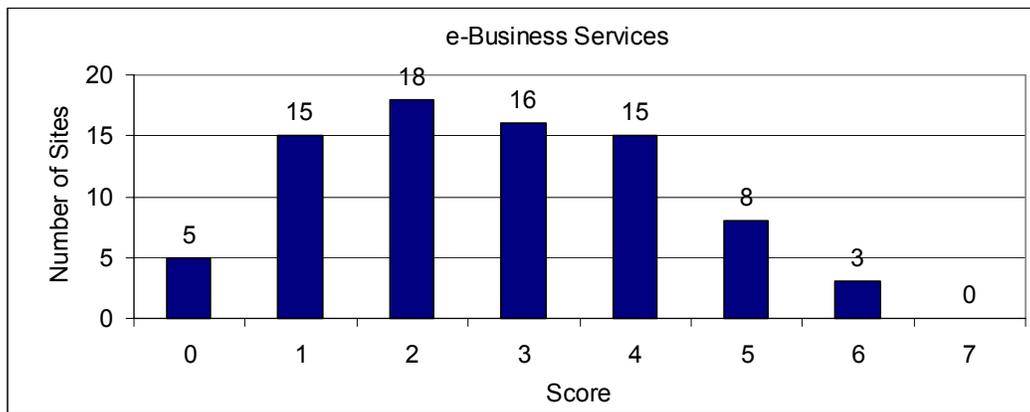


Figure 5

Organisational Trust Factors

All 80 websites were used to evaluate the following organisational trust characteristics: Trustworthiness, Credibility, Certification display, B2B partnerships, Security/Privacy, Online Reputation and Brand recognition. To do so, each website was compared to the top-ranked travel agency websites. As indicated in Figure 6, shows only 1 site achieved the perfect score of 6 and 19 sites attributed a score of 1. The average score across the sites was 2.9. Moreover, more than half of the total number of the websites (61%) scored 3 or less. These findings imply that the HK travel agency managers are not paying enough attention to their on-line branding and image. Moreover, our analysis of the websites showed that more than half of the websites did not provide clear privacy statements to assure the users that their personal information will not be sold and will be used and managed with care.

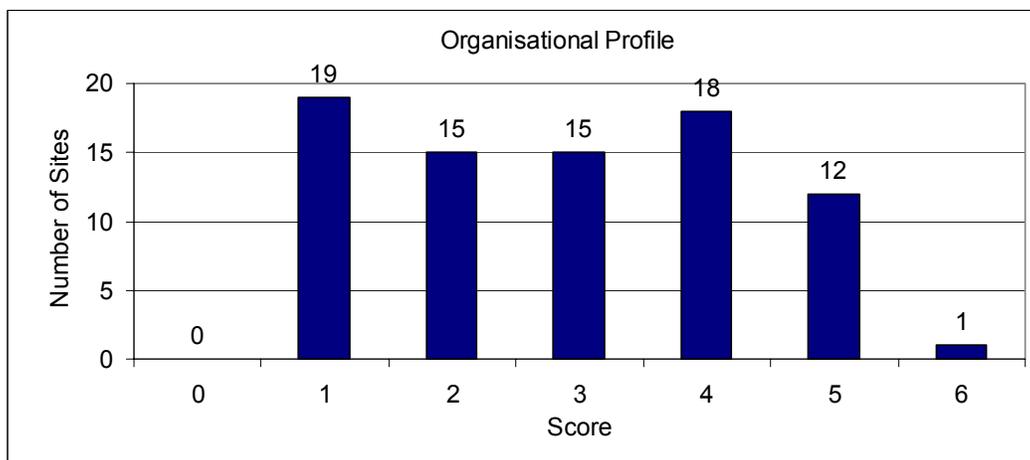


Figure 6

It is also worth noting that several HK travel agencies have websites that can be used as a model for best practices to be followed by other agencies. These agencies are Anytours.com.hk, Wingontravel.com and Easterntour.com (now offline).

Wingontravel (see figure 7) provided a multilingual interface which then branched into language specific content, site design was constant with each language area. The site provides depth of information and good organisational related factors (guide and map service, customer confidence and relationship). It is very popular company in HK and specializes in various tour packages and high quality services. Anytours Entreprises (see figure 7) has a reasonable interface and organization as well as having a good depth of resourceful content. It provides worldwide online reservation services. Easterntour had a very consistent and clear interface (depth of information, navigation, language support and organisation). It specialized in organizing inbound tours from the South East Asia region to HK.



Wingontours.com



Anytours.com.hk

Figure 7

Future Research

It is anticipated that the set of criteria used in the research will be further refined over time, particularly to include such things as relative weights of each of the criteria, as in Agarwal and Venkatesh (2002) and consideration of similar tools such as SERVQUAL (Parasuraman, Berry & Zeithaml 1991) and WebQual (Barnes & Vidgen 2002) will also enhance the validity of this framework. Recent studies by Palmer (2002), Torkzadeh & Dhillon (2002) and Kim, et al. (2002) will also provide opportunities for refinement. Furthermore, with refinement the set of criteria may be used to compare websites with each other in a more measured sense. Such a process of evaluation could be expanded to include more evaluators or utilise techniques such as focus groups, panels or Delphi methods.

Numerous opportunities remain for further research with this exploratory study acting as a baseline for future evaluations of the industry. As such, we are especially interested in the intentions of the travel agents who already have a web presence as well as intentions of those who currently do not. For those travel agents with existing storefronts, we are particularly interested in their integration plans. For example, how many travel agents expect to link the capabilities of online storefronts to the back office business processes prevalent in the industry? From this, evaluations of the level of business integration can be carried out and recommendations made to streamline operations. Additional opportunities lie in action research to assist travel agents with little current web presence. What drivers exist that can be capitalized upon? What inhibitors are present that needs to be addressed?

Conclusion

The purpose of this paper has been to provide an overview of the sophistication of current online travel web sites in Hong Kong. We note that Hong Kong agents in general are only at the "tip of the iceberg" in achieving a robust web presence. Our analysis highlighted numerous opportunities for Hong Kong travel agencies to improve their websites especially their e-CRM, considered a major criteria in order to reach the level of sophistication illustrated by mature global agents. Example of best practices of e-CRM (<http://www.onetravel.com>) include: tips and tools for travel savings, expert advice via an on-line personal approach, weather forecast, airport information, etc. Hong Kong agents have only begun to explore the opportunities that a mature web presence can bring. While the historical background and development of the Hong Kong market is different to that of mainland China, it may provide an insight into the way of the future for the development of online travel related sites in China, particularly as the two markets become increasingly integrated in the years ahead.

References

Agarwal, R, & Venkatesh, V. "Assessing a Firm's Web Presence: A Heuristic Evaluation Procedure for the Measurement of Usability", *Information Systems Research*, (13:2) 2002, pp.168-186

- Bacchus, L. R., & Molina, A. "Internet-Based Tourism Services: Business Issues and Trends", *Futures*, (33:7), 2001 pp. 589-605.
- Barnes, S., & Vidgen, R., "An integrative approach to the assessment of e-commerce quality". *Journal of Electronic Commerce Research*. 3(3), 2002.
- Bell, H. & Tang, N.K.H. "The effectiveness of commercial Internet web sites: A users perspective", *Internet Research: Electronic Networking Applications and Policy*, (8:3), 1998, pp.219 –228.
- Buhalais, D. & Licata, M.C. "The future eTourism intermediaries", *Tourism Management*, (23:3), 2002, pp. 207-220.
- Checkland, P. *Systems Thinking, Systems Practice*, John Wily & Sons, New York, USA. 1981.
- Chung, T. & Law, R "Developing a performance indicator for hotel websites", *Hospitality Management*, (22), 2003, pp. 119-125.
- Cornnolly, D., Olsen, M. & Moore, R. "The internet as a distribution channel", *Cornell Hotel and Restaurant Administration Quarterly*, (39:4), 1998, pp. 42-54.
- Countryman, C.C. "Content analysis of state tourism web sites and the application of marketing concept". *Proceedings of the fourth annual conference on graduate education/graduate student research in hospitality and tourism*, 1999, Las Vegas, USA. pp.210 –218.
- Davis, F. D. "Perceived usefulness, perceived ease of use, and user acceptance of information technology", *MIS Quarterly*, (13:3), 1989, pp. 319-340.
- Doll, W. J. & Torkzadeh, G. "The measurement of end user computing satisfaction", *MIS Quarterly*, (12:2), 1998, pp. 259-274.
- Doll, W. J., Raghunathan, T. S., Lim, J. S. & Yash, G.P. "A Confirmatory Factor Analysis of the User Information Satisfaction Instrument", *Information Systems Research* (6:2), 1995, pp. 177-189.
- Doolin, B., Burgess, L. & Cooper, J. "Evaluating the use of the Web for tourism marketing: a case study from New Zealand", *Tourism Management*, (23:5), 2002, pp. 557-561.
- Etezadi-Amoli, J. & Farhoomand, A. F. "On end user computing satisfaction", *MIS Quarterly*, (15:1), 1991, pp. 1-4.
- Gerlach, J. H. & Kuo, F. Y. "Understanding human-computer interaction for information systems design", *MIS Quarterly*, (15:4), 1991, pp. 527-550.
- Goldsborough, R. "Travel The Real World. Link-up", *Medford*, (18:1), 2001, p. 23.
- Hewett, T. T., Baecker, R., Card, S., Carey, T., Gasen, J., Mantei, M., Perlman, G., Strong, G. & Verplank, W. "Curricula for Human-Computer Interaction", *ACM Special Interest Group on Computer-Human Interaction Curriculum Development Group*, Association for Computing Machinery Inc.,1996 (<http://sigchi.org/cdg/index.html>) [10 April 2002].
- HKTVL (2003) 'Hong Kong Travel Net' (<http://www.hktvl.com/>) [6 march 2003].
- ISO, Ergonomic requirements for office work with visual display terminals (VDTs) No 9241, Part 11: Guidance on usability, *International Organisation for Standardization*, 1998.
- Jeong, M. & Lambert, C.U. "Adaptation of an information quality framework to measure customers behavioural intentions to use lodging Web sites", *Hospitality Management* (20:2), 2001, pp.129 –146.
- John, B. E. & Kieras, D. E. "Using GOMS for user interface design and evaluation", *ACM Transactions on Computer-Human Interaction* (3:4), 1996, pp. 287-319.
- Kim, J., Lee, J., Han, K. & Lee, M (2002) Businesses as Buildings: Metrics for the Architectural Quality of Internet Businesses, *Information Systems Research*, 13(2), pp. 239 –254
- Kracher, K. "The four global distribution systems in the travel and tourism industry", *Electronic markets*, (6:2), 1996, pp. 20-24.
- Mantravadi, P. M. "Case Study Series-E-Business", *E-tailing* (Vol. II): ICFAI-Press, 2001.
- Mayhew, D. *The Usability Engineering Lifecycle-A Practitioner's Guide to User Interface Design*, Morgan Kaufmann Publishers, USA, 1999.
- McKeen, J. D. & Guimaraes, T. "The relationship between user participation and user satisfaction: An investigation of four contingency factors", *MIS Quarterly*, (18:4), 1994, 427-452.
- Morrison, A.M., Taylor, S., Morrison, A.J., Morrison, A.D. "Marketing small hotels on the World Wide Web," *Information Technology and Tourism*, (2:2), 1999, pp. 97-113.
- Murphy, J., Forrest, E.J., Wotring, C.E. & Brymer, R.A., "Hotel management and marketing on the Internet" *Cornell Hotel & Restaurant Administration Quarterly*, (37:3), pp. 70 –77.
- Nielsen, J. "Traditional dialogue design applied to modern user interfaces", *Communications of the ACM* (33:10) 1990a, pp. 109-118.
- Nielsen, J. *Designing Web Usability: The Practice of Simplicity*, New Riders Publishing, Indianapolis, USA, 2000.
- Nielsen, J. "How Users Read on the Web" Jakob Nielsen's Alertbox for October 1, 1997 (<http://www.useit.com/alertbox/9710a.html>) [17 March 2003]
- Parasuraman, A.; Berry, L.L.; and Zeithaml, V.A. "Refinement and reassessment of the SERVQUAL scale" *Journal of retailing*, (67:4), 1991, pp. 420-450.
- Palmer, J. (2002) Web Site Usability, Design and Performance Metrics, *Information Systems Research*, 13(2), pp.151 –167
- Porter, M "Strategy and the Internet", *Harvard Business Review*, (63:4), 2001, pp 149-160.

- Rosenfeld, L. & Morville, P. *Information Architecture for the World Wide Web - Designing Large-scale Web Sites*, O'Reilly, USA, 1998.
- Saeed, K.A., Hwang, Y. & Grover, V. "Investigating the impacts of web site value and advertising on firm performance in electronic commerce", *International Journal of Electronic Commerce*, (7:2), 2002, pp 119-142.
- SCMP "Expedia to start operations in Asia-Pacific by 2004", *South China Morning Post*, 22 November. 2002.
- Shankar, V., Urban, G.L. & Sultan, F. "Online trust: a stakeholder perspective, concepts, implications, and future directions", *Journal of Strategic Information Systems*, (11:3-4), 2002, pp. 325-344.
- Shneiderman, B. "Designing information-abundant websites: issues and recommendations", *International Journal of Human-Computer Studies*, (47:1), 1997, pp. 5-30.
- Shneiderman, B. "Universal usability", *Communications of the ACM* (43:5), 2000, pp. 84-91.
- Sutcliffe, A. G., Ennis, M. & Hu, J. "Evaluating the effectiveness of visual user interfaces for information retrieval", *International Journal of Human-Computer Studies*, (53:5), 2000, pp.741-763.
- TIC (2003) 'Travel Industry Council' (http://www.tichk.org/tic_client/client/eng/council.html) [6 march 2003].
- Torkzadeh, G. & Dhillon, G. (2002) Measuring Factors that Influence the Success of Internet Commerce, *Information Systems Research*, 13(2), pp.187 -204
- Travelbiz "Expedia plans Sydney-based Asia Pacific operation", *Travelbiz News*, 16 March 2003 (online access: <http://www.travelbiz.com.au/articles/8e/0c012a8e.asp>).
- Truitt, L, Teye, V. & Ferris, M. "The role of computer reservation systems: International implications for the tourism industry", *Tourism Management*. (12:1), 1991, pp21-36.
- Wan, C.-S. "The Web Sites of International Tourist Hotels and Tour Wholesalers in Taiwan", *Tourism Management*, (23:2), 2002, pp. 155-160.
- Webb, H. W. & Webb, L. A. "B2C Electronic Commerce Websites: An Analysis of Quality Factors" in *Proceedings of the 8th Americas Conference of Information Systems*, 9- 11 August, Dallas, Texas, USA, 2002.
- Weber, K. & Roehl, W. "Profiling people searching for and purchasing travel products on the world wide web", *Journal of Travel Research* (37:16), 1999, pp 30-32.