



E-Commerce in China: The case of travel

Li Li*, Dimitrios Buhalis

School of Management, University of Surrey, Guildford, Surrey GU2 7XH, UK

Abstract

On-line customer research has been conducted for European and American markets by marketers and academics. Whilst e-Commerce and tourism develop rapidly in China, understanding of Chinese Internet travellers is required. This article investigates features of this on-line segment through a survey with 634 responses. It aims to establish segmental information and identify influential factors of eShopping adoption by Internet travellers in China. The key findings include that surveyed lookers who are in the age group of 31–40 and those who live in the Pearl River Delta are most likely to book travel on-line. Also, age, area of residence, type of travel website most visited, length of time using the Internet, self-efficacy, domain-specific innovativeness and perception of the Internet are influential factors of Chinese lookers becoming bookers.

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Keywords: e-Commerce; Tourism; China; Internet travellers

1. Introduction

Consumers' on-line behaviour is different in nature from traditional consumer behaviours due to the unique characteristics and interaction of technology and culture (Chau, Cole, Massey, Montoya-Weiss & O'Keefe, 2002; Christou & Kassianidis, 2002). As on-line channels are becoming increasingly important for businesses worldwide, researchers and marketers try to understand eCustomers' on-line behaviour. Large volume of papers has been written on American and European on-line segments (e.g., Buhalis, 2004; Cooper & Lewis, 2001; Hoffman & Novak, 2000; Louvieris, Driver, & Powell-Perry, 2003; Reichheld & Scheffer, 2000). This article outlines e-Commerce development in China's tourism industry and discusses Chinese Internet travellers' characteristics and their adoption of eShopping for travel products.

2. e-Commerce in China

PricewaterhouseCoopers comments that pure e-Commerce, practically, does not exist in China. However, China's e-Commerce does exist, but it is a world away from the smooth and real-time transactions experienced in Internet advanced countries (Hennock, 2002; Martinsons, 2002). One-stop on-line shop with real-time purchasing is rarely seen in China's cybermarket; instead the majority of commercial websites provide

*Corresponding author. Fax: +44 1483 686346.

E-mail addresses: l.li@surrey.ac.uk (L. Li), d.buhalis@surrey.ac.uk (D. Buhalis).

information about products only. Hence, Chinese eCustomers usually have to go through off-line means to purchase goods and services that they found or booked on the Internet.

2.1. The size of the Chinese e-Commerce market

Increased from 0.6 million in 1997, there were almost 80 million Internet users in 2003 in China (CNNIC, 2004). Exceeding Japan and South Korea (64.5 and 29.2 million Internet users, respectively (IWS, 2004)), Chinese on-line population have become the main force of Internet expansion in Asia with almost 80 million users in 2003, which is only 6% of the total mainland Chinese (CNNIC, 2003; NBS, 2003). The real figure should be higher than the official statistic which does not include users who share the same computer or login in to go on-line (eBusiness Forum, 2001).

According to China Internet Network Information Centre (CNNIC) (CNNIC, 2004), the majority of Chinese Internet users are students and people in engineering field, younger than 35. The on-line population often use the Internet to receive/send emails (88.4% of the total users), to read news (59.2%) and search information including travel-related information (61.6%) (CNNIC, 2004). In addition to that, during 2003 over 40% of the surveyed Chinese Internet users are cyberbuyers, increased from 32% in 2000 (CNNIC, 2002). They often purchase books, CDs and computer appliances from the net (Efendioglu & Yip, 2004).

The growing number of Internet users and cyberbuyers has provided an opportunity for eBusiness development in China. In contrast to 1500 websites in 1997, there are over 590 thousand in 2003 (CNNIC, 2002, 2004). Most of them are e-Commerce sites and over 45% of these sites have e-Commerce capabilities (CNNIC, 2003; eBusiness Forum, 2000). Chinese enterprises have created national leading porters (sina.com, sohu.com, and 163.com), and the largest on-line book retailer in China is dangdang.com. These sites are the counterparts of America's Yahoo and Amazon in that order. Other key players include Alibaba.com, China's foremost Business-to-Business website, eLong.com and Ctrip.com, leading on-line travel companies, and EachNet, China's largest cyber marketplace. On average, two commercial websites are being registered every day in China (Ernst & He, 2000).

2.2. The value of the Chinese cybermarket

The first on-line sale in March 1998 symbolised the beginning of China's e-Commerce (OYCF, 2000). US\$40 million were generated in 1999 in China, opposed to US\$8 million in 1998 (Asia Source, 2000). The total value of consumer on-line purchasing reached US\$38.6 million in 2000 (Clu, Xu, Chen, & Liu, 2001). eBay, the US on-line auction giant, estimates that China's e-Commerce revenue will reach more than US\$16 billion in the near future (Out-law.com, 2002). Moreover, according to Easyspace Ltd. Company, the market's value is projected to expand to US\$23 billion within 3 years, in contrast to the current value of US\$500 million per year (World IT Report, 2003).

Compared with American and European markets, China's e-Commerce capacity lags behind (Zhang, 2002). For example, consumer e-Commerce revenues for the first quarter of 2002 in the America was US\$17 billion; whereas in China, e-Commerce revenue is projected to reach only US\$4.8 billion by 2004 (Efendioglu & Yip, 2004). However, this is understandable. Consumers in developing countries tend to purchase goods off-line due to a number of factors that affect e-Commerce development. In China, the trade tradition is represented with "pay off in cash on good's arrival" on a face-to-face basis. This norm still shapes Chinese consumers' buying behaviour nowadays, which virtually challenges the payment modes that are widely available for on-line transactions.

3. Chinese ecustomers

The main reasons for Chinese Internet users shopping on-line are time-saving, lower costs, easy to use and looking for rare goods; and around 22% of the buyers purchase out of curiosity (CNNIC, 2004). Cyberbuyers in mainland China are different from those in Hong Kong and Singapore, who claim that convenience in delivery and ease in purchase is the main reason for shopping on-line and rank unique merchandise the second as a factor promoting on-line buys (Liang & Wei, 2004; Wee & Ramachandra, 2000).

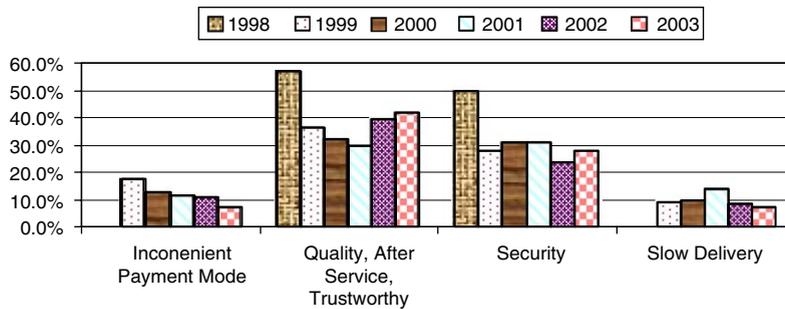


Fig. 1. Concerns of eShopping. Source: Adapted from CNNIC (1999, 2000, 2001, 2002, 2003 and 2004).

Fig. 1 portrays Chinese eCustomers' changing attitude toward eShopping over the period of time from 1998 to 2003. First of all, there are concerns over product quality, trustworthiness of retailers and security, which are also worries for the cyberbuyers in Hong Kong and Singapore (Wee & Ramachandra, 2000). In the first year of China's e-Commerce, product quality, post-purchase services, and the trustworthiness of product providers most concerned many mainland Chinese Internet users (around 58%). After a continuous fall from 1999 to 2001, this issue still bothered 42% of Chinese Internet users in 2003 (CNNIC, 2003). While this may set an alarm for Chinese eRetailers, it probably results from current limited regulations and poor enforcement of protecting customer's rights in electronic commerce in the country. However, more people are expected to develop a positive attitude towards eShopping as China's e-Commerce develops with improving service infrastructure and legal environment.

Security is the second major concern for Chinese eCustomers. Around 30% worry about the security of pay on-line in recent years, opposed to 50% in 1998, as illustrated in Fig. 1. This worry will continue to be an issue for e-Commerce given the fact that American consumers are still concerned with security after so many years of extensive acceptance of Internet and e-Commerce with functional and reliable banking infrastructure (Efendioglu & Yip, 2004).

Despite of the wide recognition that the unsophisticated pay and delivery infrastructure hinder e-Commerce developments in China (Bath, 2000; BBC, 2003; Haley, 2002; Zhu, 2004), Chinese Internet users do not seem to be troubled with payment modes available for on-line purchases. The percentage of users complaining that the payment methods are inconvenient has been declining, as can be seen in Fig. 1. In 2003, only around 7% of the users felt that the on-line pay modes are not convenient (CNNIC, 2003). The downward trend seems to mirror and support BDA-China's argument that the lack of sophisticated payment systems does not pose a major obstacle to China's e-Commerce, because its cash-on-delivery system is a reliable and popular means of payment for on-line purchases (Efendioglu & Yip, 2004). This may also suggest that the on-line payment system will soon not be a main obstacle to China's e-Commerce development.

Furthermore, around 10% of Internet users perceive goods delivery being slow in China. The percentage has been decreasing since 2001. This may hint that postal services in the country generally satisfy customers and on-line merchants. Efendioglu and Yip (2004) comment that the emerging private courier companies in China and the contracts between China's postal service and on-line merchants for goods delivery significantly minimise the distribution challenge for the eBusinesses.

4. eTourism in China

Although the Internet has become an important information source with its rich travel information and increasingly diverse tourist products, China's eTourism is at its infant stage of development (Wong, 1998; Xiao, 2003). In 2003, only 2% of the total e-tickets issued through Civil Aviation Authority of China's Electronic Tourist Distribution system were booked on-line (TravelSky, 2004). This represents the on-line air bookings nationwide, commented by Mr. Jian Zhao, the Marketing Manager of TravelSky, in the personal interview in May 2004 in London. In the hospitality sector, the Internet is used as a marketing tool for providing information about the properties. For those who receive on-line reservations, Internet sales

represent a small proportion of total revenue. On-line sales in Beijing are on average at around 4% of total sales, and 3star hotels generate higher on-line sales than 4star and 5star properties do (Ma, Buhalis, & Song, 2003). Due to the lack of mutual trust between the hoteliers and customers, off-line confirmation for on-line reservation is commonly used (Ma et al., 2003; Xiao, 2003).

China's travel service sector has encountered revolutionary changes due to the commercial use of the Internet. Businesses from IT industry take advantage of e-Commerce, and become on-line travel agencies, such as the tourism division of 163.com (an Internet portal), Byecity.com, Ctrip.com and eLong.com. These new entrants are often backed by advanced technology companies and competitive tourism organisations with funds from Chinese and foreign conglomerates. Despite their innovative technologies, competing with the key conventional tour operators and travel agencies is still challenging. More Chinese on-line agencies are gradually moving towards the combination of on-line and off-line due to the pressure of profitability (Xiao, 2003). Call centres thus become their core business units, demonstrated by 40% of Internet sales being reported by Ctrip.com's and eLong.com's hotel reservation call centres (Ma et al., 2003).

In China's marketspace, around 7.5% of Internet users search travel information on-line (China Internet Network Information Centre (CNNIC), 2004). These individuals are actually the lookers. During 2003, 6.6% of Chinese eCustomers purchased tickets and 3.4% booked hotel rooms (CNNIC, 2003). These bookers represent early adopters of eShopping for tourism products. As independent travel and self-driving holidays become popular in China, the demand for use of the Net for information search and/or travel bookings is expected to increase (Xiao, 2003).

5. Research design

The studies on Chinese Internet travellers are very limited. A research was carried out to investigate the characteristics of Chinese travel lookers and their adoption of eShopping for tourism products. It takes consideration of a variety of variables, which will be discussed below. They can be categorised into socio-demographics, travel-related behaviour, perception of the Internet, self-efficacy, customer domain-specific innovativeness (DSI), Guanxi and wired lifestyle. The research aims to establish segmental information of Chinese e-tourists (including lookers-only and bookers) and to identify their different characteristics, based on results of an on-line survey with over 600 participants.

5.1. Factors

Socio-demographic information including education level, age, income and occupation are considerably different among bookers, lookers and other Internet users (Morrison, Jing, O'Leary, & Cai, 2001). In China, economy and tourism are better developed in the Beijing and Tianjin Belt, Yangtze River Delta covering Shanghai, and Pearl River Delta (STB, 2002; Wang & Ap, 2003; Xiao, 2003). Hence, these areas should be the major Chinese e-tourists generating regions.

Furr, Bonn, and Hausman (2002) report that American Internet users who travel longer distances tend to be more affluent and better educated, and tend to spend more for travel services, compared with non-Internet users who travel shorter distances to the same destination regions. Membership of Frequent Flyer Programmes (FFP), frequency of travel and the number of trips yearly are important indicators of lookers' probability of being bookers (Morrison et al., 2001).

Base upon the theories of innovation diffusion, reasoned action and planned behaviour, perception of the Internet, self-efficacy, DSI, and wired-lifestyle are influential factors that explain eShopping adoption (Anckar & Walden, 2000; Ajzen & Madden, 1986; CNNIC, 2004; Christou & Kassianidis, 2002; Citrin, Sprott, Silverman, & Stem, 2000; Davis, 1986; Fishbein & Ajzen, 1975; Mathieson, 1991; Rogers, 1995; Sexton, Johnson, & Hignite, 2002; Vijayarathy, 2004). Customers' attitude towards the Internet as an information and reservation tool for travel bookings is determined by the perceived attributes of the Internet. Formed attitude has a direct relationship with intention to shop travel on-line (Citrin et al., 2000). Self-efficacy is the "consumer's self-assessment of his/her capabilities to shop on-line" (Vijayarathy, 2004). This concept represents Theory of Planned Behaviour's perceived behavioural control (Anckar & Walden, 2000), and is positively associated with intention to purchase goods from the Net (Vijayarathy, 2004).

According to Citrin's et al. (2000) study on DSI, a looker is likely to be an experienced Internet user, and be innovative within the domain of the Internet and Web. For instance, a person with a high level of DSI is more likely to be the first person in his/her circle of friends to visit a new travel website. A wired lifestyle is vital to predicting Internet shopping. This concept can be examined through the length and frequency of a user using the Internet and the products that the user has purchased (Citrin et al., 2000). The more frequently customers use the Internet, the more likely they become eShoppers (Sexton et al., 2002). It is also reported that American travellers often search websites of on-line travel services to compare travel prices (Morrison et al., 2001).

Cultural norms shape customers' buying behaviour. In collectivist cultures, like China and Korea, family and other members will offer help when anyone in the group suffers losses after selecting a risky option, whereas people in individualist culture are expected to bear the consequences of their own decisions (Park & Jun, 2003). This is named cushion effect. Park and Jun (2003) observe that Korean Internet users show higher perceived risks on privacy, security and product than American users, but still frequently purchase products on-line. They comment that this is a result of the cushion effect. Guanxi is an aspect of Chinese cultural values, meaning a network of relationships implanted with reciprocal obligations through a self-conscious manipulation of various socio-cultural symbols including Renqing and Ganqing (Wong & Tam, 2000). An individual is obliged to pay back the debt of gratitude to another person whom he/she owe Renqing to (Luk, Fullgrabe, & Li, 1999). Ganqing stands for friendship, implying expectations and obligations of getting/granting favourable responses from/to one's friends (Luk et al., 1999; Merrilees & Miller, 1999). Efendioglu and Yip (2004) detect Guanxi's cultural characteristics in the current transaction systems in China's e-Commerce. Chinese eRetailers use customers' "moral obligation to return a favour" to encourage on-line sales.

5.2. *Research questions*

In order to establish segmental information of Chinese Internet travellers and to identify characteristic differences between lookers-only and bookers, two questions are raised:

- (1) Who are using the Internet for travel-related activities in China?
- (2) What characteristics do the Chinese lookers have?

The second question leads to seven hypotheses that are set as follows:

- H1.** There is difference between lookers-only's and bookers' socio-demographics.
- H2.** There is difference between lookers-only's and bookers' travel-related variables.
- H3.** There is difference between lookers-only's and bookers' wired lifestyle.
- H4.** There is difference between lookers-only's and bookers' DSI.
- H5.** There is difference between lookers-only's and bookers' self-efficacy.
- H6.** :There is difference between lookers-only's and bookers' Guanxi variables.
- H7.** :There is difference between lookers-only's and bookers' perception of the Internet.

5.3. *Questionnaire development*

A questionnaire was designed to obtain socio-demographic information of respondents, their wired lifestyle in relation to travel and leisure activities and the attributes explained by DSI, self-efficacy, Guanxi and perception of the Internet. The statements listed in Table 1 were developed to tap the attribute variables, were placed on a seven-point Likert scale (from 1 to 7) to capture more variances. All the questions were initially developed in English and then translated into Chinese. To ensure the accuracy of translation, a convenient group of 12 Chinese students was invited to the pilot study. Two minor changes on wording in Chinese were then made accordingly.

5.4. Sampling and data collection

Given the large on-line population in China, contacting with individual Internet users is practically impossible. The study is interested in those who use the Internet for travel-related activities. In order to reach this particular segment, corporation with eLong.com, a leading on-line travel company in China, was established to implement an on-line survey in June 2004. It was difficult to decide the sample size because response rate of a similar survey in China was not known. To obtain sufficient responses for data analysis, 103,000 registered customers of the company were randomly selected from its database and were contacted through emails. When respondents submitted the questionnaire form on-line, answers were automatically stored in a self-built database. The on-line survey offered an effective way to reach the subjects of research interest; however, the sampling method reduced the ability to generalise findings.

5.5. Data analysis methods

Perception of the Internet was tapped with 12 statements. To ensure the instrument was valid, a factor analysis was employed to identify underlying dimensions of the concept, which could then be used as independent variables to facilitate interpretation of findings. Descriptive statistics were used. For categorical variables, distribution frequency and mode values were computed. Means and standard deviations were calculated for the continuous variables.

χ^2 test and *t*-test were exploited to compare mean values, so that hypothesis H1–H7 could be examined. χ^2 test was performed on variables measured on nominal scales, and those with skewed distributions. The test for all the variables satisfied the criterion of minimum expected cell frequency—“at least 80 per cent of cells have

Table 1
Variable inventory: attributes

Customer domain-specific innovativeness

DSI1: I am among the first in my circle of friends to visit a new travel-related website.

DSI2: If I heard that a new travel website was available on the Internet, I would be interested enough to shop from it.

DSI3: Compared to my friends, I seek out relatively more information over the Web.

DSI4: I am the first in my circle of friends to know of any new travel websites.

DSI5: I will visit a new tourism company's website even if I have not heard of it before.

Self-efficacy

EFF1: I am proficient in using the Internet for shopping travel product/services.

EFF2: I feel confident that I can use the Internet for shopping travel product/services.

Guanxi

RQG: Sometimes, I have to purchase tour package from the person/party whom I have owed Renqing to even though the same tour or a similar one can be bought from a travel website.

GQG: When I intent to purchase a product presented on a travel website, I would ask a friend of mine who may be able to get a discounted rate to book it for me.

Perceptions of the Internet

PRA1: I don't feel safe to use credit card on-line.

PRA2: Generally travel websites offer tourism products at cheap prices.

PRA3: I would buy discounted travel products on-line.

PRA4: I would book travel on-line more often if incentives, such as frequent flyer miles or points, are provided.

PCX1: I feel I am not clear with on-line reservation procedure.

PCX2: I feel it is not easy to book travel on-line.

CMP1: Using the Internet to shop travel product/services is compatible with the way I like to shop.

CMP2: Using the Internet to shop travel product/services fits with my lifestyle.

CMP3: I am used to travel agents or toll-free numbers.

CMP4: I intent to book travel on-line more often.

CMM1: I have heard about people booking travel on-line many times.

CMM2: Many friends have booked travel on-line.

expected frequencies of 5 or more” (Pallant, 2001). *t*-Test was used to compare means of other concepts that were quantified on continuous scales. It was performed by using randomly selected 130 cases, half of which were lookers-only and the other half were bookers. Twenty-seven missing values in the *t*-test sample were replaced with their corresponding mean values. This approach was considered appropriate because all these variables had skewness values ranging between -1 and $+1$.

6. Findings

The on-line survey obtained 634 usable questionnaires. Five hundred and sixty-three of the respondents have booked travel on-line (e.g. bookers), accounting for 89%, and 71 were lookers-only. The sample appears to be bookers biased.

Table 2 illustrates the results of the factor analysis. Four components were identified and were named compatibility, complexity, communicability and financial advantage. This is consistent with the perceived attributes of an innovation postulated in innovation diffusion theory (Rogers, 1995). The four-factor-solution explains a total of 68% of the variance with each factor contributing over 15%. Given that a number of strong factor loadings, and that all the variables loaded substantially on only one factor, the modified instrument performs fairly well in tapping the concept.

6.1. Segmental information

6.1.1. Socio-demographics

Table 3 shows the comparison between socio-demographics of the research sample and the official statistics reported by Citrin et al. (2000). The samples of this research represent a fair equal balance in terms of gender, opposed to CNNIC’s finding that 60% of Internet users are male. Also, over 55% of surveyed individuals are single, which is very close to the official figure.

In contrast to CNNIC’s statistics, there are only 5% of the respondents who have high school (and below) schooling and almost 50% have bachelor degrees. This may be due to the biased sample, in that respondents are actual customers of a commercial travel company. It can be identified as the limitation to the generalisability of the results to all Chinese online population. However, it seems like that university graduates are the prime markets for travel services, especially on-line.

The mainstream of surveyed respondents is in their 20s and 30s: over 61% of them belong to the age group of 21–30, and almost 28% in the bracket of 31–40. Half of the respondents are white-collar workers. 80% of

Table 2
The modified perception of the Internet scale: factor analysis

		Factor loading				Communalities
Factor 1 compatibility	CMP2	0.899				0.847
	CMP1	0.872				0.809
Factor 2 complexity	PCX1		0.898			0.808
	PCX2		0.898			0.815
Factor 3 communicability	CMM2			0.916		0.878
	CMM1			0.898		0.871
Factor 4 financial advantage	PRA1				0.660	0.519
	PRA3				0.634	0.621
	PRA2				0.630	0.474
	PRA4				0.623	0.612
Eigenvalue		2.473	1.905	1.898	1.883	
% of variance explained		20.61	15.87	15.82	15.69	67.99 ^a

Note: Extraction Method—Principal Component Analysis; Rotation Method—Varimax with Kaiser Normalization; items loadings less than 0.5 were omitted; rotation converged in 5 iterations.

^aCumulative % of variance explained.

Table 3
Socio-demographics comparison: gender, marital status and education

Variables		% of total respondents	
		Research sample	CNNIC (2004)
Gender	Male	50.17%	60.40%
	Female	49.83%	39.60%
Marital status	Single	55.79%	56.80%
	Married	44.21%	43.20%
Highest educational attainment	High school & below	5.14%	42.80%
	Junior college	29.10%	27.40%
	Bachelor degree	48.39%	27.10%
	Master degree	15.59%	2.20%
	Doctor degree	1.77%	0.50%

them live in a small family of no more than three people. The one-child policy imposed in the late 1970s in China results in many 3-member Chinese families. The research's statistics have well reflected this phenomenon. Given the overwhelming proportion of the respondents age between 21 and 40, and 44% of the total sampled individuals are married, it is most likely that these "3 people" households are of "parents with one child" families.

Furthermore, over 73% of them report a household annual income of over US\$5700 (monthly income times 12) while 18% earn over US\$1446 every month. Compared with the national average annual disposable income for the urban residents, which is US\$1023 in 2003 (NBS, 2003), most of the surveyed lookers appear to be affluent.

In all, 46%, 30% and 14% of the surveyed lookers live in Beijing and Tianjin areas, Yangtze River Delta and Pearl River Delta, respectively. These are three major urban regions, representing relatively higher Internet penetration within China (Citrin et al., 2000). This finding may indicate that e-Commerce in these areas are more advanced than that of other places of the country. It also reflects the fact that potential Chinese tourists are generated in these economically better-developed regions (Liu, 2002).

Testing hypothesis— χ^2 test results indicate that there are not significant differences in gender, marital status, education level, occupation, household size and household income between lookers-only and bookers. However, heterogeneity in age group and area of residence between the categorical lookers exists ($p < 0.0001$).

Statistics suggest that lookers who are aged between 31 and 40 are most likely to book travel on-line. The percentage of the age group members who have purchased travel products is 90%, representing the highest score across all the age groups. This may be because this specific segment is more affluent than those who are younger and have just started a career. Lookers who are over 51 years old are most unlikely to book travel on-line, exemplified by 54% of them being lookers-only. Maybe, it is due to their less developed proficiency in using the Internet for shopping. However, this group of people are potential bookers for tourism firms as they research on-line and may purchase travel off-line.

Across regions, lookers in Pearl River Delta are most likely to book travel on-line. By contrast, it is actually surprising to see Beijing and Tianjin only come third in the same statistics. The figures also reveal that those living outside the three Delta areas are most likely to only browse the websites, which probably indicates that they are slower adopters of eShopping for tourism products.

6.1.2. Travel-related behaviours

On average, respondents took 4.7 domestic trips during the last 12 months, and 23% of them had two trips. However, the number of international trips taken by the respondents averages only 0.8. Less than 30% of them travelled to overseas destinations at least once last year. This actually represents a remarkable proportion of outbound tourism market embedded in the sample, considering that only 1.6% of mainland Chinese visited other countries in 2003 (NBS, 2003). This, again, suggests that many surveyed lookers are

over-average-income earners, and may be in a managerial position with opportunities of travelling abroad for business. Moreover, 50% of the respondents are members of a FFP, reflecting that Chinese tourism companies have been exercising loyalty programmes in a certain scale to retain their customers. It may also imply that a proportion of the surveyed lookers are sophisticated and frequent travellers, at least within the country.

Testing hypothesis—computed significant value for continuity correction is 0.874 in the χ^2 test on “FFP membership” and “Have you ever booked travel service on-line?” Hence, there is no difference in FFP membership between lookers-only and bookers. Moreover, the p -values of above 0.05 in t -test suggest that the differences in the mean figures of “number of domestic trips taken last year” and “number of international outbound trips taken last year” between the two categorical members are insignificant too. Therefore, rejecting H2, the null hypothesis for travel-related variables is accepted.

6.1.3. *Wired lifestyle: tourism perspective*

Almost 50% of them use the Internet over 31 hours every week. It seems that the surveyed lookers are heavy Internet users, considering the average weekly usage of 13 hours in the nation (Citrin et al., 2000). More than 80% of the subjects have over 4 years of Internet experience, which also suggests that most of them are experienced users.

Eighty-five per cent of total trips booked through the Internet are domestic. While over 89% of respondents report that they purchased hotel rooms for their last on-line booked trips, 55% bought air tickets. Moreover, over 50% purchased both air tickets and hotel rooms. While 42% of the trips are two-people travels, a great proportion of the bookers (27%) travelled alone. Around 40% of bookers consumed over RMB2500 (around US\$300) for their last trips booked on-line.

In relation to last trips booked on-line, the majority of the bookers used public transportation, but about 30% of bookers drove cars to the destinations. Over 60% of the subjects planned their trips 2 weeks before departure; whereas 24% prepared more than 3 weeks in advance. Seventy-six per cent of the repliers designed trip itinerary themselves, which may indicate that Chinese travel agents are playing a fairly insignificant role in helping travellers to arrange their on-line booked holidays. This indicates the emergence of disintermediation in China's eTourism.

Testing hypothesis—the length of time using the Internet is significantly different between lookers-only and bookers. Users who have less than 1 year experience with the Internet are more likely to browse the web only. Lookers who have used the Internet for 7 years and more are most likely to book travel on-line. However, lookers-only and bookers do not differ in terms of weekly Internet usage, personal payment for Internet service, and frequency of using the Internet for travel information in a year, as the computed p -values are greater than 0.05. The absence of significant relationship between frequency of Internet usage and booking travel on-line does not support the notion that more frequently customers use the Internet, the more likely the eShopping will be adopted by the users (Morrison et al., 2001; Sexton et al., 2002). This may demonstrate that researchers should appreciate regional differences in e-Commerce adoption by Internet users.

The statistic test indicates that people “who visit principals' websites most often” are more likely to book travel on-line. This seems to represent a rather different on-line behaviour pattern from the American Internet travellers who visit the websites of tourism travel agencies most often are also the most likely to book on-line (Morrison et al., 2001). The finding may also, once again, raise a sign of disintermediation in China's tourism industry.

6.2. *Attribute variables*

As detailed in Table 4, the overall mean value for domain-specific innovativeness is 4.22, suggesting that the sampled lookers are overall innovative within the domain of travel websites. The respondents seem to have a fairly high self-assessment of their capabilities to purchase travel on-line. The mean score of 4.36 for Ganqing variable seems to propose that the surveyed lookers are price-conscious and may seek alternative means to purchase discounted products off-line, such as personal network. However, Renqing does not seem to affect their decision-making on purchase. This is probably due to the low level of “personal touch” in on-line transactions.

Table 4
Descriptive statistics

Variables	Mean	Std. deviation	Variance
<i>Domain-specific innovativeness</i>	4.22		
DSI1	3.91	1.35	1.83
DSI2	3.92	1.21	1.46
DSI3	4.97	1.16	1.35
DSI4	3.85	1.34	1.79
DSI5	4.47	1.40	1.97
<i>Self-efficacy</i>	5.39		
EFF1	5.31	1.23	1.52
EFF2	5.46	1.16	1.36
<i>Guanxi</i>			
GQG	4.36	1.32	1.75
RQG	3.20	1.46	2.13
<i>Compatibility</i>	4.51		
CMP1	4.47	1.19	1.43
CMP2	4.55	1.13	1.28
<i>Financial advantage</i>	4.60		
PRA1	4.45	1.44	2.09
PRA2	4.00	1.24	1.53
PRA3	4.83	1.14	1.30
PRA4	5.11	1.14	1.31
<i>Communicability</i>	4.52		
CMM1	4.67	1.28	1.64
CMM2	4.36	1.36	1.84
<i>Complexity</i>	2.81		
PCX1	2.71	1.39	1.94
PCX2	2.91	1.37	1.88

It seems that the surveyed Chinese have an overall positive perception towards the Internet, as demonstrated by the mean values of compatibility, financial advantage, communicability and complexity. They regard the Internet as a good channel for purchasing goods despite concerns over use of credit card on-line (mean value for “I don’t feel safe to use credit card on-line” (PRA1) = 4.45), which may reflect that cushion effect also exist in China’s e-Commerce. As illustrated in Table 4, the financial advantage factor’s mean is 4.6. This, once again, suggests that price is a factor driving sampled lookers to shop from the Net. This finding echoes previously mentioned CNNIC’s report on why Chinese cyberbuyers purchase goods from the Internet. It is also evident that the commercial use of the Internet for booking travels is well communicated within the respondents. This implies that when the message is delivered to later adopters, the eShopping adoption process may accelerate. Furthermore, surveyed individuals do not feel performing eShopping of tourism products is difficult (mean = 2.81). This indicates that the respondents are experienced Internet users and sophisticated e-tourists.

Testing hypothesis—*t*-test results suggest accepting H4, H5, and H7 ($p < 0.05$). To some extent, bookers and lookers-only differ in domain-specific innovativeness, self-efficacy and perception of the Internet, as illustrated in Table 5. In terms of having a first-go with a new travel website (DSI1) and showing interest in shopping from a new travel website (DSI2), the lookers-only are less innovative than the bookers. These findings confirm Citrin’s et al. (2000) assertion that a potential eCustomer is likely to be innovative within the domain of the Internet and Web.

Difference in self-efficacy between surveyed lookers-only and bookers is statistically significant. An Internet user’s expectation about the outcomes of eShopping travel, and the person’s belief about own capability to

Table 5
t-Test results: mean comparison

Variable	Bookers	Lookers-only
I am among the first in my circle of friends to visit a new travel-related website (DSI1).	4.02	3.46
If I heard that a new travel website was available on the Internet, I would be interested enough to shop from it (DSI2).	4.05	3.35
I am proficient in using the Internet for shopping travel products (EFF1).	5.35	4.57
I feel I am not clear with on-line reservation procedure (PCX1).	2.62	3.23
I feel it is not easy to book travel on-line (PCX2).	2.65	3.40
Using the Internet to shop travel product is compatible with the way I like to shop (CMP1).	4.51	3.69
Using the Internet to shop travel product fits with my lifestyle (CMP2).	4.59	3.80

perform the behaviour model the probability of him/her engaging in eShopping, according to social cognitive theory (Bandura, 1977). In these data, bookers demonstrate a relatively higher level of self-assessment on proficiency in shopping travel on-line. This appears to echo the positive relationship between intention to shop on-line and self-efficacy reported in other studies (Anckar & Walden, 2000; Vijayasathy, 2004).

A χ^2 test was carried out to compare the means of “I feel confident that I can use the Internet for shopping travel products” (EFF2) between the groups, because the variable has a skewed distribution. It reveals that difference between the mean values is not statistically significant ($p > 0.05$). Although lookers-only have not booked travel products on-line, they show the same degree of positive confidence in using the Internet to purchase tourism products (mean = 5.46, see Table 4). This is probably due to that the respondents are experienced Internet users. They may have made purchases of other goods on-line; hence they feel confident in using the Internet to book travel products.

Surveyed lookers-only and bookers differ in perception of the Internet. While booking travel on-line does not appear complicated (PCX1 and PCX2) to both categorical members, it does pose a relatively higher degree of complexity to the lookers-only as shown in Table 5. Moreover, the bookers tend to feel purchasing travel from the Web is compatible with their lifestyle (CMP1 and CMP2) whereas lookers-only have an opposite view on this. In line with the notions of innovation diffusion theory, these findings indicate that perceived attributes of the Internet as a reservation tool for tourism products explain how rapidly it is adopted. Furthermore, being consistent with intention-based studies, compatibility of electronic travel shopping with customers’ lifestyle positively influences the intention to adopt eShopping, whereas complexity reduces the intention (Citrin et al., 2000; Davis, 1986; Park & Jun, 2003; Rogers, 1995; Szajna, 1996; Vijayasathy, 2004).

As mentioned previously, surveyed lookers may seek alternative means, such as personal network, to purchase discounted products off-line. However, a closer investigation on Guanxi between lookers-only and bookers reveals that the groups do not differ in terms of the impact of this cultural norm on their decision making on eShopping travel product. It appears that Guanxi does not explain Chinese eCustomers adopting eShopping for tourism products. This is maybe because the Internet has become an important channel offering rich travel information and diverse tourism products in China, and Chinese lookers can search and compare travel products with a great flexibility. Consequently, dependency on personal networks for purchasing on-line tourism products is reduced.

7. Discussion

Research findings reveal a number of significant influential factors of sampled Chinese lookers adopting eShopping for travel products. The sample data suggests that bookers are more innovative than lookers-only in relation to visiting a new travel website. This reaffirms Citrin’s et al. (2000) notion that DSI is an important concept in understanding customer’s intention to shop on-line. While both surveyed lookers-only and bookers hold a positive self-assessment on their proficiency in using the Internet to shop tourism products, bookers demonstrate a relatively higher degree of self-efficacy. As this concept represents TPB’s perceived behavioural control, this finding is coherent with the theory of planned behaviour (Ajzen & Madden, 1986).

As found in the literature review, the intention of a potential eCustomer purchasing tourism product on-line is partially determined by his/her attitude towards eShopping, which is governed by the perceived attributes of the Internet/Web as a reservation tool. Bookers appear to have a more positive attitude toward shopping on-line, which explains why they are early adopters of eShopping. Although financial advantage and communicability variables have positive mean values in this study, mean value differences between surveyed bookers and lookers-only are not statistically significant. This implies that these two factors are not important in explaining respondents adopting eShopping for travel products in these data.

The research findings throw lights to managerial decision-makings. The proliferation of the Internet represents threats as well as opportunities for Chinese tourism firms. The study identified a very low level of travel agents' involvement in helping eCustomers design itinerary for the trips booked on-line. As most of the surveyed Chinese Internet travellers represent domestic tourists, who are generally experienced in travelling within the state (Zhang, Wei, & Liu, 2002), they may prefer making a travel plan that best meets their own requirements. Hence, eCustomers may bypass travel agents and book tourism products from the principals' websites, which challenges Chinese travel agencies with disintermediation.

Potential for business development in the marketplace is tremendous. Although the Internet has been emerging as an important travel information source and sales channel in China, its functionalities are still at early stage of development, compared with the good e-Commerce practices such as Lastminute.com, Travelocity.com and many others. Hence, to gain competitive advantage, Chinese entrepreneurs ought to react quickly and embrace innovative eSolutions for management and operations.

Given the large customer base in China, opportunities also lie in customer acquisition by engaging influential forces and identifying potential profitable segments. As mentioned previously, the majority of the surveyed Chinese lookers are well-educated individuals living in the three economically advanced regions. Most of them are white-collar workers with an above-average income and a small family to support. These people represent early adopters of eShopping in the Chinese society, and form the force that influences others to accept and engage in purchasing travel services from the Net. Chinese lookers who are aged between 21 and 30 rank second in the tendency of purchasing travel on-line. Geographically, the Yangtze River Delta is the second best region behind Pearl River Delta for fast market penetration. Hence, firms may wish to increase forces to target these segments if they want to acquire new customers effectively and quickly.

8. Conclusion

This paper has established segmental information of the sampled Chinese Internet travel lookers. It has also investigated influential factors of adopting eShopping for tourism products. Research findings initiate managerial implications and solutions that can be realised by utilising Internet-based applications. The potential of business development in the cybermarket are tremendous for the Chinese tourism companies, providing they recognise the strategic implications of information communication technologies and take full advantage of them. For scholars, this study raises the question of to what extent theoretical ground developed in the Western communities are applicable in the Chinese context. It is advisable that researchers need to take into account regional differences when trying to understand eCustomers from different cultural backgrounds.

Given the large on-line population in China, the non-probability sampling method with the relatively small sample size in this study would limit the ability to generalise findings as representative to the Chinese population as well as other markets. Nonetheless, as contributions of this research, it has provided an in-depth knowledge about Chinese Internet travellers, and confirms theories and previous studies of other authors that explain the adoption of commercial use of the Internet. Future research should take into consideration of regulatory factors that may affect the adoption of booking travel on-line in China.

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Li Li successfully completed the M.Sc. study in eTourism at the University of Surrey in the United Kingdom, Li Li then started her career as a Research Officer at the University's School of Management. She is currently working closely with the Hotel & Catering International Management Association, a UK-based leading international professional body, for a joint project in e-learning. Li Li is also undertaking a Ph.D. research on the application of technologies in hospitality management development in the University.

Dimitrios Buhalis is Reader in Business Information Management, Course Leader M.Sc. in Tourism Marketing and Leader of eTourism Research at the School of Management University of Surrey. Dimitrios is also Adjunct Professor at the MBA in Hospitality Management at the Institut de Management Hotelier International (Cornell University-Ecole Supérieure des Sciences Économiques et Commerciales ESSEC) in Paris. Dimitrios has been an active researcher in the areas of ICTs and Tourism and he was the UniS-based Principle Investigator for a number of projects including several European projects. He serves as Vice Chairman on the International Federation of Information Technology and Tourism (IFITT) Board. He has editorial roles in a number of academic journals and he has written, edited or coedited 12 books on eTourism, Future of tourism, Tourism Strategic Issues and Distribution Channels of Tourism.