Adoption of travel e-shopping in the UK

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Abstract
Purpose – This study aims to explore consumers' adoption of internet shopping in the context of UK travel services. The key objective is to identify the profile of internet shoppers and the antecedents of internet shopping adoption for travel services.

Design/methodology/approach – The paper includes evidence and findings from an online survey questionnaire distributed to existing travel e-shoppers in the UK via their e-mail address. Drawing upon Davis' technology acceptance model (TAM), the study proposes a model for the prediction of internet shopping adoption, with inclusions of personal and cognitive influence. The model identifies the structural relationships among eight constructs, which were examined through structural equation modelling.

Findings – The results of this study yield evidence that previous technology acceptance and diffusion research, and specifically the significant body of work based on the TAM, may serve as a foundation for much needed research into consumers' adoption of internet-related activities. Relationships among primary TAM constructs found in this research are largely consistent with those typical in previous TAM research. The descriptive results present a profile of travel e-shoppers in terms of demographic, geodemographic and buying patterns. The results explicitly clarified several key contributions to and implications for marketing theory and practice.

Practical implications – The findings will facilitate an understanding of the factors associated with the adoption of travel e-shopping, thereby enabling retailers and policy makers to better develop appropriate strategies to enhance and promote e-shopping to future users while retaining existing customers.

Originality/value – Essentially, the research framework explains three basic issues of online marketing: Who actually shops via the internet? What makes consumers adopt internet shopping? Which attributes are relatively important to adoption?

Keywords Travel, Marketing, Electronic point of sale, Consumer behaviour, Technology led strategy, United Kingdom

Paper type Research paper

Introduction
The internet is rapidly becoming the fastest growing shopping channel with a 62 per cent of internet users had bought products from the internet at least once over the first six months of 2004 (Aqute Research, 2004). It is expected that, the figures will increase significantly over time, moving from its infancy to a market with significant potential, with millions of people shopping online as more and more people are internet savvy (Strauss and Frost, 1999; Shim et al., 2001).

Despite the significant increase, there is very limited information on how and why certain groups of consumers shop online while others accept e-shopping reluctantly. This can be evidenced by Ernst and Young's (2000) report on worldwide internet survey, which indicates that internet penetration growth in most countries did not justify the adoption of e-shopping strategies. Fewer people than anticipated actually purchase through the internet (Pastore, 2000). In reality, people increasingly use the
internet to obtain information but not for purchasing products. Besides, many research have shown that traditional consumer buying behaviour have been affected by the new way of shopping (Bitner et al., 2000; Citrin et al., 2000; Blake et al., 2003). As a result, consumer behaviour in the online market is no longer predictable by marketers. Therefore, this research sets out to fill the gaps in the current understanding of the potential of the online market and to illuminate how consumer behaviour is influenced in such a market.

**Travel e-shopping potential**

The development of IT has had a major impact on most industries, especially the travel industry, one of the largest and fastest growing industries in the world. Among online businesses, travel appears as one of the largest and fastest growing industries with flights and accommodations as the most popular online purchases of all, 31 per cent (National Statistics, 2001; European Travel Commission, 2005).

The internet presents a great opportunity for travel retailers to use this medium to sell their products and services. For instance, many travel companies such as EasyJet, Ryanair, Travelodge and Lastminute.com have established a secure online booking and payment facilities via their web site, while actively promoting web offers.

In exploiting the market potential of travel e-shopping, retailers need a clear understanding of who actually purchase online and their behavioural influence. Such information is crucial to retailers, as consumer purchase decision for a travel service involves a complex multi-stage process layered along a hierarchical set of activities (Fesenmaier and Jeng, 2000). Moreover, the purchase decision is vary considerably as a result of inherent personal characteristics such as innovativeness. Many studies have suggested e-shoppers’ profile in terms of demographics and purchase patterns (Citrin et al., 2000; Blake et al., 2003; Bhatnagar and Ghose, 2004). However, most of them have been limited either to the context of non-UK markets or to tangible products such as books, groceries or food products. This study extends these borders to the UK market and focuses on travel e-shopping.

**Consumer adoption model**

In understanding the issue of consumers’ influence and behaviour toward e-shopping some previous studies (Westland and Clark, 1999; Shim et al., 2001) have utilised Fishbein’s model (Fishbein and Ajzen, 1975). In the Fishbein model, attitude has been viewed as a predictor of intention and finally actual behaviour. However, the idea that intentional behaviour will predict actual behaviour is rather questionable in online setting, due to a large numbers of dropouts and those who only browsing and not shopping (Lee and Johnson, 2002). This indicates that empirical evidence of the impact of the internet on consumer shopping behaviour remains inconclusive (Jarvenpaa and Todd, 1997). This paradox has resulted in mixed opinions regarding the future of internet marketing amongst researchers and practitioners. Some studies view that e-marketing is an over-hyped, transient fad (Forrester Research, 2000; Holloway and Beatty, 2003), while others maintain that the impact of the e-marketing is still promising because it performs a supporting role for existing marketing activity (Rowley, 1996; Reinders and Baker, 1998; Hoffman and Novak, 1996; Jobber, 2004).

As most previous work on e-shopping has focused on the intentional behaviour rather than the actual behaviour of e-shoppers, this study fills this gap by
understanding the “actual” e-shoppers’ behaviour. This includes identifying the profile of travel e-shoppers and the antecedents of their e-shopping adoption which converge personal influence as well as cognitive influence.

Conceptual framework
Based on established pertinent theoretical foundations and literatures, a research framework had been developed to investigate the factors that influence the adoption of travel e-shopping within the context of UK consumers. The Davis’ (1989) Technology Acceptance Model (TAM) was chosen as the basis for developing a conceptual model explaining consumers’ e-shopping adoption due to its consistent capability to explain a substantial proportion of variances between behavioural intention and actual behaviours derived mainly from research into the purchase of technology related products (Davis et al., 1989; Mathieson, 1991; Adams et al., 1992). In particular, the proposed model seeks to take advantage of the validity and reliability of perceived usefulness (PU) and perceived ease-of-use (PEU) in the TAM by adding other constructs in order to improve explanatory and predictive power (Taylor and Todd, 1995; Igbaria et al., 1996; Jiang et al., 2000; Gefen and Straub, 2000).

As shown in Figure 1, the proposed model suggests that consumer adoption of travel e-shopping will be determined by:

- PU and PEU;
- personal characteristics (consumer involvement, consumer innovativeness and opinion leadership); and
- perceived risk and trust.

As a result, 15 hypotheses were generated and tested from the model.
Methodology

The primary data collection commenced with qualitative data through focus group discussions, which were conducted in a non-structured manner. The most prominent themes and issues were extracted from the focus group findings for questionnaire design purposes. They were also used to support the development of conceptual framework as well as the measurement items of the questionnaire. This was followed by the quantitative data collection which was a questionnaire survey.

Owing to the nature of the research, accessibility to the target audience and facilities available, this study employed online survey which involved web-based questionnaire for the main data collection process. An e-mail database acquired from a research agency represents the total population of e-shoppers in the UK. Sample of e-mails were picked at random by a generated sampling system, similar to random digital dialling. This approach deemed to permit generalizations.

E-mail invitations with a web-link to the survey page were used as a vehicle for inviting and reminding respondents to participate for the survey. To encourage participation, this study offered the respondents the opportunity to enter into a lucky draw to win a flight voucher sponsored by BMIBaby.com. The online survey was activated for two weeks with 300 e-shoppers participated.

Various statistical tools and techniques had been employed for the data analysis of this study including multivariate analysis using SPSS and AMOS software for the structural equation modelling (SEM).

First, the measurement items were refined and validated using reliability test and exploratory factor analysis. Then, the constructs were again validated using confirmatory factor analysis (CFA) in the SEM. SEM is utilised to evaluate how well the proposed conceptual model of e-shopping adoption that contains observed indicators and hypothetical constructs (Figure 1) explains or fits the collected data (Bollen, 1989a, b; Hoyle, 1995). Through SEM procedures, simultaneous examination and explanation of the inter-related dependence relationships among constructs is possible (Reisinger and Turner, 1999). It also provides the ability to measure or specify the structural relationships among sets of unobserved (latent) variables, while describing the amount of unexplained variance (Hoyle, 1995; Byrne, 1998; Turner and Reisinger, 2001).

When measurement and structural models are evaluated, three types of overall model fit measures are usually utilized: absolute fit measures, incremental fit measures, and parsimonious fit measures (PFM) (Hu and Bentler, 1995; Byrne, 1998; Hair et al., 1998; Maruyama, 1998). An absolute fit index is used to directly evaluate how well an a priori theoretical model fits the sample data, while an incremental fit index is used to assess the proportionate fit by comparing a target model with a more restricted, nested baseline model. A PFM is used to diagnose whether model fit has been achieved by over-fitting the data with too many coefficients.

Findings and discussions

The profile and purchase pattern of travel e-shoppers

Table I summarises the descriptive findings that contain some category of responses which hold significant percentages of the total respondents. Based on these findings, the first research question about the profile of travel e-shoppers was revealed.
These findings suggest the profile of travel e-shoppers may be described as follows. Demographically, most travel e-shoppers are middle-aged (25-44) females with higher educational level, who are either married or living with partner. They are mostly young couples, middle to lower-middle social group, including professionals, semi-professionals and white-collar workers whose annual household income ranges £25,000-50,000; only the minority have children. As most of their time spent at the workplace, e-shopping allows them to shop 24/7 conveniently from anywhere. This makes them positive towards travel e-shopping compared to other people.

### Characteristics Categories Percentage

| Gender | Male | 32.8 |
|        | Female | 67.2 |
| Age    | Below 24 | 13.3 |
|        | 25-44 | 69.6 |
|        | Above 45 | 17.1 |
| Education | High school certificates | 45.9 |
|        | Graduates and professionals | 54.1 |
| Marital status | Single | 21.1 |
|        | Married/living with partner | 75.3 |
| Household social group | Middle | 38.8 |
|        | Lower middle | 34.8 |
| Locations | Southern regions | 26.4 |
|        | Eastern regions | 12.4 |
|        | London | 10.4 |
| MOSAIC group classification | Happy families | 11.7 |
|        | Ties of community | 11.7 |
|        | Suburban comfort | 9.4 |
| Estimated household income (based on MOSAIC) | £45,000 and above | 15.1 |
|        | £25,000 to 44,999 | 21.1 |
|        | £13,500 to 24,999 | 11.7 |
| Internet usage | 4-6 years | 44.1 |
|        | 7-9 years | 26.8 |
| Types of products purchased online | Videos, CDs or DVDs | 81.3 |
|        | Books or magazines | 74.2 |
|        | Gifts or flowers | 66.2 |
|        | Clothing, accessories or cosmetics | 60.2 |
|        | Electronics or appliances | 59.2 |
|        | Telecommunication products | 54.8 |
| Online travel information search frequency | Several times per-month | 40.1 |
|        | Every three months | 26.8 |
| Length of adopting travel e-shopping (early adopter vs later adopter) | Three years or more | 53.5 |
|        | Two years or less | 46.5 |
| Types of travel web site shopped | Web-based travel agents | 72.9 |
|        | Companies’ web sites | 64.2 |
| Adoption of travel e-shopping | Accommodation | 79.9 |
|        | Flight tickets | 72.9 |
| Frequent travel purchase (at least once a year) | 70.8 |
| 46.2    | 33.9 |
| 26.8    | 12.4 |
| 10.4    | 5.6 |

**Table 1.** The profile of travel e-shoppers.
The travel e-shoppers’ profile shows some consistencies with many previous studies in terms of gender, age, occupation, education and household composition. The result also similar to the MOSAIC (2004) consumer classification, where travel e-shoppers are mostly from the Ties of Community and Happy Families groups. Further, the current findings are also parallel with those of Aqute Research (2004) in that the household income of online shoppers is found to be between £25,000 and 49,999. Geographically, more than half of the respondents are from eastern and southern parts of the UK, including London. However, this result might be influenced by the population of each region and the distribution of the registered participants obtained from the database.

**Internet usage and e-shopping adoption.** The study reveals that the majority of travel e-shoppers are experienced internet users and search for travel information more frequently than others. Most of them have adopted travel e-shopping for the past 1-4 years. Further, they seem to portray more positive attitudes towards e-shopping compared to others. Therefore, the familiarity with internet usage does affect the likelihood to adopt e-shopping. This supports Citrin et al. (2000), who found that higher levels of internet usage were more likely to lead to the adoption of the internet for shopping purposes. The study also found that e-shoppers rely on comprehensive product information and comparative pricing to facilitate their purchase decisions, which they obtain from information searching.

**Types of purchase and preferred web site.** Despite the shopping frequency, the majority of e-shoppers shop for accommodation and flight tickets compared to other types of travel services such as vacation packages, coach tickets or car hires. This is due to the ease of description and commodity-like nature of many travel services (i.e. hotels and flights), which favour the adoption of e-shopping (Lewis et al., 1998). It is also found that e-shoppers prefer to shop from web-based travel agents (e.g. Expedia.co.uk, Lastminute.com) who provide all sorts of travel products to customers, similar to the concept of “shopping under one roof”. Besides, companies’ web sites is found to be the second preferred web site, such as airlines and hotel chains web sites. This may indicate brand-name loyalty to certain familiar brand such as BritishAirways.com or HolidayInn.com, and also price consciousness, enabling them to get much better offers.

**The e-shopping adoption model**

In resolving the second part of the research questions regarding, the model of antecedents of internet shopping adoption, SEM was utilised to test a series of hypotheses that attempted to identify the structural relationship between the constructs on the proposed e-shopping adoption model shown in Figure 2 and Table II.

The relationships between the constructs were examined based on t-values associated with path coefficients between the constructs. If an estimated t-value is greater than a certain critical value ($t < 0.05$, $t$-value = 1.96), the null hypothesis that the associated estimated parameter is equal to 0 is rejected. Subsequently, the hypothesised relationship was supported.

The SEM, was carried out in accordance with a two-step method (Anderson and Gerbing, 1988, p. 191) where “the measurement model is first developed and evaluated separately from the full SEM”. Accordingly, the first step in the data analysis was to establish the unidimensionality, reliability, convergent and discriminant validity of the
construct with CFA. All measurement models were within the accepted thresholds for CFA.

Secondly, the full proposed structural model was estimated on the cleansed measurement models. The fit indices were below acceptable thresholds, showing inadequate fit to the data ($\chi^2 = 393.905; \text{df} = 191$), and some modifications were required to achieve the best-fit threshold. Subsequently, modifications were carefully made to the hypothesised model based on the SEM output suggestions. However, it is important to note that the formulation of the alternative models was guided by

![Proposed model and hypotheses paths](image)

### Table II. Hypotheses test of proposed model

<table>
<thead>
<tr>
<th>Hypotheses and hypothesised paths</th>
<th>Standardised coefficient</th>
<th>$t$-value</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>$H1$ Perceived ease-of-use $\rightarrow$ perceived usefulness</td>
<td>0.635</td>
<td>8.134*</td>
<td>Supported</td>
</tr>
<tr>
<td>$H2$ Perceived ease-of-use $\rightarrow$ perceived risk</td>
<td>$-0.117$</td>
<td>$-1.642^a$</td>
<td>Rejected</td>
</tr>
<tr>
<td>$H3$ Perceived ease-of-use $\rightarrow$ trust</td>
<td>0.343</td>
<td>5.156*</td>
<td>Supported</td>
</tr>
<tr>
<td>$H4$ Perceived ease-of-use $\rightarrow$ adoption</td>
<td>$-0.038$</td>
<td>$-0.398^a$</td>
<td>Rejected</td>
</tr>
<tr>
<td>$H5$ Perceived usefulness $\rightarrow$ adoption</td>
<td>0.403</td>
<td>3.905*</td>
<td>Supported</td>
</tr>
<tr>
<td>$H6$ Perceived risk $\rightarrow$ perceived usefulness</td>
<td>$-0.183$</td>
<td>$-2.469^{**}$</td>
<td>Supported</td>
</tr>
<tr>
<td>$H7$ Perceived risk $\rightarrow$ adoption</td>
<td>$-0.193$</td>
<td>$-2.446^{a}$</td>
<td>Rejected</td>
</tr>
<tr>
<td>$H8$ Trust $\rightarrow$ perceived risk</td>
<td>$-0.429$</td>
<td>$-5.243^{*}$</td>
<td>Supported</td>
</tr>
<tr>
<td>$H9$ Trust $\rightarrow$ perceived usefulness</td>
<td>0.065</td>
<td>0.915*</td>
<td>Rejected</td>
</tr>
<tr>
<td>$H10$ Trust $\rightarrow$ adoption</td>
<td>$-0.123$</td>
<td>$-1.714^{a}$</td>
<td>Rejected</td>
</tr>
<tr>
<td>$H11$ Consumer involvement $\rightarrow$ adoption</td>
<td>0.139</td>
<td>2.307**</td>
<td>Supported</td>
</tr>
<tr>
<td>$H12$ Consumer involvement $\rightarrow$ trust</td>
<td>0.246</td>
<td>3.978*</td>
<td>Supported</td>
</tr>
<tr>
<td>$H13$ Consumer involvement $\rightarrow$ perceived risk</td>
<td>$-0.170$</td>
<td>$-2.560^{**}$</td>
<td>Supported</td>
</tr>
<tr>
<td>$H14$ Consumer innovativeness $\rightarrow$ adoption</td>
<td>0.378</td>
<td>4.443*</td>
<td>Supported</td>
</tr>
<tr>
<td>$H15$ Opinion leadership $\rightarrow$ adoption</td>
<td>0.124</td>
<td>1.438*</td>
<td>Rejected</td>
</tr>
</tbody>
</table>

Notes: *$p < 0.001$; **$p < 0.01$; *insignificant path
substantive theoretical and empirical considerations and practical meaningfulness (Hair et al., 1998).

Thirdly, based on the modifications, four alternative models (i.e. RM1, RM2, RM3 and RM4) were developed and tested via SEM to examine which model performed best in explaining the travel e-shopping adoption. For each model, overall fit, predictive power and the significance of the path were reported. The result suggested that the RM4 is the best model to predict the adoption of travel e-shopping due to its goodness-of-fit indices. Eventually, the final model was generated and subsequently accepted, as it is the most parsimonious model and represents the best fit to the data (Figure 3).

In summary, of the 15 hypothesized paths from the proposed model, nine of them were found to be statistically significant. The other six hypothesised paths were found to be insignificant. On the other hand, interestingly, three new causal paths were found from the SEM model re-specifications; they are opinion leadership and PEU; involvement and PEU and innovativeness and trust which would be new potential research area (Figure 3). Through an examination of each hypothesis path, which includes investigating the interrelationships among constructs, it is able to explicitly highlight the theoretical contributions of this study.

The importance of PEU and PU in the adoption of e-shopping

As predicted, PU was positively correlated with the adoption of travel e-shopping and PEU. The results validate the postulation in the TAM that PU is positively related to PEU and behavioural intention (Davis, 1989). This relationship is expected, as many previous studies have found the same effects of PEU on PU and behaviour intention (Mathieson, 1991; Adams et al., 1992; Igbaria et al., 1995; Agarwal and Prasad, 1997; Gefen and Straub, 1997). The result suggests that PU is a major determinant of

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**Figure 3.** Final model and hypotheses paths

**Note:** Dotted lines indicate new causal path found in the final model
travel e-shopping adoption \((H_5)\). It demonstrates that, ease-of-use does not engender e-shoppers’ decisions to adopt travel e-shopping. Instead, e-shoppers will use travel e-shopping resources that are perceived to be useful and to easy-to-use interfaces. Both PEU and PU will generate favourable feelings towards using travel e-shopping, leading to greater likelihood of adopting travel e-shopping. Besides, this study also suggests that the ease-of-use of e-shopping is able to build up trust as well as increasing the PU of travel e-shopping. Thus, PU and PEU have been demonstrated to be fundamental determinants of technology adoption behaviour.

The importance of consumer innovativeness and involvement in the adoption of e-shopping

The result of positive direct relationship between consumer innovativeness and adoption explains that individual traits are as important as PU in making an individual adopting new technology. Thus, innovative shoppers are expected to comprehensively use the e-shopping medium and are more likely to engage in web features when shopping for travel services online.

Alongside PU and consumer innovativeness, the study also found that there is a direct effect between consumer involvement and the adoption of travel e-shopping. This indicates that consumer involvement is an essential contributor to the adoption of travel e-shopping. Thus, it signifies long-term interest in a domain \((\text{Bloch, 1981})\) and this plays a central role in the adoption of e-shopping. In this case, marketing communications, ease-of-use (navigability and usability), personalization and the customisation of web site interfaces are vital, as they might lead to increased involvement levels and finally to the adoption of e-shopping.

In contrast, the result suggested there is no significant relationship between opinion leadership and the adoption of travel e-shopping. This result is expected, as opinion leadership is found to have a very strong correlation with consumer innovativeness, which eventually demonstrates a strong effect on e-shopping adoption. Chan and Misra \((1990)\) suggested that opinion leadership is an important descriptive personal characteristic of innovators. Since, opinion leadership may be an indication of innovativeness, opinion leaders may be created from early adopters to persuade later adopters to try new products or services \((\text{Chan and Misra, 1990})\). In spite of the insignificant role of opinion leaders towards adopting travel e-shopping, marketers may need to consider the role of opinion formers in influencing internet users’ decisions to adopt travel e-shopping.

The indirect influence of perceived risk and trust in the adoption of e-shopping

As highlighted by many studies \((\text{Jarvenpaa et al., 2000; Friedman et al., 2000; McKnight et al., 2002})\), the critical role of trust is a critical area in the domain of e-shopping. Consumers could overcome their fear, derived from perceived risk of e-shopping, by building up trust in a web site, or even in the entire e-shopping environment. This notion has been found to support the result, where trust in travel e-shopping has a negative relationship with perceived risk. The more trust e-shoppers have in travel e-shopping, the lower their risk perception will be. Subsequently, if e-shoppers have low perceptions of risk related to e-shopping, they will appreciate the usefulness of e-shopping more and as a result will be more likely to adopt travel e-shopping.
On the other hand, the result also demonstrates consumer involvement has positive effects on both trust and PR with regard to travel e-shopping. As previous researchers have discussed, consumer involvement is revealed to play a prominent role in explaining both trust creation and customer retention (Teichert and Rost, 2003). Similar to previous studies (Park and Lessig, 1981; Dawar and Parker, 1994 and Heilman et al., 2000), consumers with low, product involvement are likely to perceive higher risk in relation to lesser-known brands than to well-known brands and to rely on extrinsic cues, such as brand name, price and physical appearance, to perform product evaluations. This result implies that the more consumers are involved in their e-shopping processes and activities, the more trust they are likely to have in the new shopping channel. Additionally, the more shoppers are involved with travel e-shopping, the less risk they are likely to perceive in relation to this medium.

Research contributions
This study contributes to and extends the understanding of the internet as a medium for commercial use in the business-to-consumer arena. An understanding of reasons for online purchasing is particularly relevant in the context of predictions made regarding e-shopping in the future (Swaminathan et al., 1999).

Firstly, from a managerial viewpoint, by recognizing the profile of travel e-shoppers, online retailers would be able to define their target markets, to plan suitable offers or to launch new products for specific market segments. The demographic and geodemographic profile of travel e-shoppers could also be used for fine-tuning market segmentation and positioning strategies while emphasizing the benefits offered by the marketers’ web sites to the e-shoppers. Therefore, marketers could design a more personalised marketing that are based on specific consumer needs, tastes and lifestyles. Consumers are more likely to make impulsive purchase decisions if the new product is of particular interest to them (Raymond and Tanner, 1994). Further, by understanding the profile of e-shoppers, travel marketers would be able to influence consumer behaviour from conducting internet information searching to internet shopping.

Secondly, the findings provide support for investment decisions, and for decisions relating to the development of internet services that address and take the concerns and wants of consumers into consideration. This study confirms that the convenience of e-shopping attracts to consumers, as it enables them to shop at any time, from anywhere, as well as providing product information sources, lower prices and perceived control over purchase decisions. However, privacy and the security of personal and financial information during transactions are concerns amongst e-shoppers.

Third, this study contributes to an understanding of how internet facilities can be embraced by travel retailers, and also how these facilities contribute to the development of online tourism in the UK. To this end, the proposed model for analysing e-shoppers’ behaviour in order to gain an understanding of the antecedents of e-shopping adoption could be used as a practical tool to predict how consumers behave online. It is more meaningful as the model examines the “actual” e-shoppers’ behaviour rather than their “intentional” behaviour. This is an important issue, as researchers have questioned the strength of the relationship between intentions and self-reported subjective use (Straub et al., 1995).
Fourth, theoretically, the comprehensive, yet parsimonious model developed in the study makes an important contribution to the emerging literature on online consumer behaviour by grounding new variables, which is the influence of personal characteristics into a well-accepted general model (TAM) and then applying them to a new context of e-shopping. The final e-shopping adoption model possesses substantial explanatory power with reasonably high goodness-of-fit (GFI = 0.912, RMR = 0.034, RMSEA = 0.047); thus, the results provide convincing support for the theoretical framework of the study.

Fifth, this study contributes to the application of online survey, where an online software package was utilised to design and administer the survey. It is rare to the point of surprise that this new method of data collection contributes similar functions as offline data collection (Kehoe and Pitkow, 1998; McCoy and Marks, 2001). Thus, this contribution is to attest to the great opportunity to accelerate the research process via online survey tools.

**Practical implications**
The results suggest several practical implications for travel retailers.

*Perceived usefulness and perceived ease-of-use*
It is evident from this study that in order to convert internet browsers into e-shoppers, the ease of use and usefulness of e-shopping must be enhanced. Retailers should understand that consumers perceive e-shopping as useful because it serves all aspects of shopping convenience. Retailers need to understand these motivations and emphasise the benefits in their marketing communication. From time to time, retailers should expand the benefits by offering additional facilities and services such as online order tracking services, free trials, membership rate, last minute deal, etc. This could extend the PU of e-shopping, which would eventually influence consumers’ decisions to adopt.

Besides, travel retailers should promote the simplicity of e-shopping to encourage adoption. In designing a travel web site, marketers should pay attention to ease-of-use, user-friendliness and ease-of-navigating in order to enhance people’s perceptions of the web site’s ease-of-use, which will increase people’s intention to make use of the service. In providing a user-friendly shopping environment, web sites should be tailored more effectively to meet the needs of users based on skill levels.

*Risk and trust*
Privacy and security are very much related to the topic of trust and risk in e-shopping, as personal data are processed when making orders or reservations. It is known that e-shoppers are likely to purchase from a web retailer that is perceived to be low-risk, even if the shopper’s PU and ease-of-use are relatively low (Jarvenpaa et al., 1999). Thus, diminishing such risk is considerably important to web retailers. More specifically, establishing a risk-free image would seem to be a key strategy for marketers if they are to attract consumers to an e-shopping format. One possible approach is to encourage credit card companies to make consumer protection assurances in order to reduce consumers’ security and privacy risk.

However, marketers should be more careful and selective in executing e-marketing strategies and tactics as consumers today are easily irritated by unwanted and
unsolicited communications via the internet, they are less likely to purchase products from the senders’ web sites. Thus, it is suggested that travel retailers should consider the permission marketing[1] strategy, which appears to be very appropriate in the e-marketing context. Besides, customer relationship management approaches could also be used to build a trusted relationship between marketers and e-shoppers is also recommended. By keeping in touch with shoppers after sales retailers could build trust as well as relationships with the shoppers, which would attract shoppers to revisit their web sites in future.

The consumer innovativeness
The level of consumer innovativeness could presumably help marketers to identify early adopters of their products. As consumer innovativeness is positively associated with the adoption of travel e-shopping, travel marketers need to target consumers who have a general innovative attitude in the domain of IT. The early adopters contribute to the initial sales of a new product or service as they appear to understand the benefits and master the use of technology more quickly than other shoppers. They also provide important word-of-mouth communication about the new products to later adopters. Moreover, they are also important advocates and will spur the e-shopping adoption process among their peers (Agarwal and Prasad, 1998). This would greatly benefit the technology diffusion process within society.

Consumer involvement
The study found that consumer involvement is vital in stimulating online purchasing behaviour. Therefore, retailers should create various stimuli to encourage consumers to be involved in web searching and shopping. Many creative ways to get consumers involved in the shopping process, such as through web interactive features (e.g. audio, video, 3D pictures). These features could stimulate interest and getting many people involved in e-shopping by encouraging them to visit the web site regularly. Apart from that, retailers could create incentive programs such as reward points programs, e-vouchers and membership schemes that could sustain e-loyalty while converting an information seeker into a regular customer.

Alternatively, consumer involvement in e-shopping could also be enhanced by integrating online and offline marketing approaches. Despite the potential of the internet as a communications tool, it is important for companies to realize that the internet, by itself, is not a self-supporting mechanism (Kotler et al., 1996). E-marketing efforts are unavailable to a large percentage of the world’s population, and it would be irrational to market solely on the internet. Thus, any e-marketing activities should provide additional exposure and should complement traditional marketing efforts (and vice versa) (Mathiesen, 1995). The internet should become an integrated and complementary element of the entire marketing mix (Kotler et al., 1996).

Future research
Advanced research should be embarked upon to replicate and validate the model in order to determine the robustness of the current findings. Since, the generalisability of the model is inherently limited to the travel services setting, the model and hypotheses should therefore be extended beyond the present context (e.g. to the e-banking industry and the insurance industry). It is also suggested that if any replication study were to be
carried out beyond the internet shopping context, some refinement to the measurement
instrument for the constructs must be carefully considered. By doing so, these
replication studies could extend the generalisability of the findings derived from the
current study.

The findings of the direct relationships of external variables over and above the
TAM variables may be applicable in the internet marketing settings; the TAM needs to
be extended to include other mediating beliefs. Future research is suggested to further
extend the TAM to encompass other theoretical constructs (Davis et al., 1989; Gefen
and Straub, 2000; Gefen et al., 2003). It would be interesting, for example, to explore the
role of consumer satisfaction, shopping orientation, personal traits and social
influences on the acceptance of e-shopping.

Conclusion
The results of this study yield preliminary evidence that previous technology
acceptance and diffusion research, and specifically the significant body of work based
on the TAM, may serve as a foundation for much needed research into consumers’
adoption of internet-related activities. Relationships among primary TAM constructs
found in this research are largely consistent with those typical in previous TAM
research. The research framework is one of the very first studies to incorporate
cognitive variables from the literature on consumer adoption of innovation and the
TAM, and helps to initiate the integration of cross-disciplinary studies in e-marketing.
The framework has ultimately; provide an integration of existing research and a
springboard for future systematic research in the area of online consumer behaviour.

Note
1. Marketers will ask permission before they send advertisements to prospective customers. It
   requires that people first “opt-in” rather than allowing people to “opt-out” only after the ads
   have been sent.

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**Further reading**


Adoption of travel e-shopping

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