ANTECEDENTS OF AIRLINE TICKETS ONLINE PURCHASE INTENTION

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ABSTRACT

This paper aims to analyze the determinants of airline tickets online purchase intention focusing on the role of trust, perceived risk and attitude towards airline tickets online purchases. An empirical research among 309 Spanish non-purchasing Internet users was conducted to test the hypothesized relationships. The findings show that perceived privacy and security risk of personal data treatment in airline websites and trust do not directly influence online airline tickets purchase intention, however, they do activate attitude which influences future shopping intention. The findings also show that trust reduces the perceived risk of airline travel tickets online purchasing. Managerial implications for airline managers are provided.

INTRODUCTION

Internet has become a revolutionary tool for the future of the tourist industry. Firstly, because it allows tourism suppliers to offer enormous flexibility and a wide range of choice and secondly, because consumers can reserve or purchase at any time and place, compare different offers, make time and cost savings, etc. (Kim, Ma and Kim, 2006).

We are currently witnessing the re-engineering of the tourist industry (electronic tickets, low-cost companies, comparison shopping services, commission and loyalty programmes) which are undoubtedly favouring deintermediation of the industry. By way of example, traditional Spanish travel agencies lost 21.5% of their customers to online shopping in 2006 (Media Planning Group, 2007). In the US, airline web sites have also grown in popularity as a mechanism for selling airline tickets, capturing 58% of sales in 2005 (ComScore, 2006). By 2010 it is anticipated that in Europe over 60 million users, or almost a fourth of the continent's total population, will buy their travels online (Jupiter Research, 2007).

In Spain, as in the US and Europe, the products most commonly sold online are travel-related (Forrester Research, 2007, Red.es, 2007). In Spain, the most popular online purchases are airline travel tickets (36.5%), followed a long way behind by tickets for shows (16.9%), books (13.9%), electrical appliances (12.2%), reservations for accommodation (12.4%) and clothes and accessories (10.1%) (Red.es, 2007).

Despite the fact that an increasing number of flights are purchased online, there is very limited information on how and why certain groups of consumers shop online while others accept e-shopping reluctantly (Kamarulzaman, 2007). Many consumers still mistrust Internet as a shopping channel and show negative attitudes towards using it to reserve/purchase their flights. Consumers are also very concerned about the purchase confirmation process, as perceived purchase risk is a significant barrier which may prevent them from carrying out the transaction (Christou, Udimiotis, Kassianidis and Sigala, 2004; Cunningham, Gerlach, Harper and Young; 2005; Xperience Consulting, 2007). Fear over the misuse of their personal and financial information means that many consumers use Internet only to search for information on their holidays and then make the purchase in bricks and mortar travel agencies.

Trust issues and risk perception have been found to be crucial drivers of Internet shopping adoption (Boksberger, Bieger and Laesser, 2007; Cunningham et al., 2005; Grabner-Kräuter and Kaluscha, 2003). Thus, in virtual environments it is fundamental to increase consumer trust, as the risk associated to possible losses from the online transaction is greater than in traditional environments. Recent research has indicated that trust has a striking influence on user willingness to engage in online exchanges of money or personal sensitive information (Flavian and Guinaliu, 2006). Moreover, it is also crucial for airline's managers to understand the barriers to airline tickets online purchasing in order to assign resources effectively to obtain competitive advantages.

Previous research focused on tourism services also shows that trust (Gefen, Karahanna and Straub, 2003), perceived risk (Cunningham et al., 2005) and attitudes (Sanz, Ruiz and Molina, 2008) are critical factors in stimulating online shopping. As studies by Athiyaman (2002) and Hae, Hailin and Yoo (2007) posit, attitude is one of the main precursors to present and future intention to purchase online tourism services.

Bearing in mind the above, this work attempts to make an in-depth study of the variables with the most impact on the online purchase of airline tickets. The aim of this research is to evaluate the role of trust, perceived privacy and security risks and consumer attitude, on airline travel tickets online purchasing. The study is divided in three parts. In the first section the conceptual model is presented focusing on the rationale of the constructs used and deriving testable hypotheses. In the methodology section, design, sample and measures are presented and validated. Finally, the results are discussed and implications for airlines' managers are provided.

LITERATURE REVIEW

Perceived shopping risk

The concept of perceived risk suggests that consumer behavior involves a risk because the consumer cannot completely foresee the consequences of his or her behavior and those consequences may be disagreeable (Bauer, 1960; Mitchell, 1999). Therefore, the subjective perception of risk in a given purchase situation will be in relation to two main dimensions: uncertainty (the lack of knowledge about what could happen) and possible negative consequences (purchase-related loss) (Bauer, 1960).

According to Forsythe and Shi (2003) the perceived online shopping risk for the Internet user is expectation of loss in a given electronic transaction. As a self-service technology, Internet airline reservation places a significant burden and responsibility on the consumer. The consumer is responsible for searching multiple carries for fares, comparing prices, and proper booking (Law and Leung, 2000) which, in turn, increases perceived risk.

The importance of the influence of risk on online ticket purchase is emphasised in the study by Christou et al (2004) which shows that consumers with the least aversion to risk, the most innovative, are those who are more willing to purchase online. In this context, Cunningham et al. (2005) found that perceived purchase risk has a negative influence on the use of Internet for airline reservations and ticket purchases. The consumer has to assume responsibility for choosing from a large number of flights, obtaining the best price and making the reservation without errors, all within a shopping environment, such as airline company web sites, which requires the user to have certain skills.

Several studies have considered perceived risk as a multidimensional construct which subdivides into several losses or risk factors, which together, explain the overall risk associated with the purchase of a product or service (Cunningham et al., 2005; Forsythe and Shi, 2003). This study reviews the concepts of security risk and privacy risk, two of the aspects most often related to trust in online relationships as personal data are processed when making orders or reservations (Kamarulzaman, 2007) and, then, analyses the influence of trust on airline web site user perceived risk and Internet airline travel tickets purchase intention.

Consumers associate security risk with the possibility of the loss of bank account or credit account numbers, passwords etc…, which can result in the loss of money. Consumers perceive different degrees of protection against threats that can be made either through

network and data transaction attacks or through unauthorised access to the account by means of false authentication (Yousafzai, Pallister and Foxall, 2003). Customers tend to purchase online airline travel tickets only if they perceive that credit card and other sensitive information is safe and payment channels can't be intercepted. Previous research shows that perceived security risk is an important predictor of Internet shopping adoption. Sathye (1999) investigates Internet banking adoption by Australian consumers and identifies security concerns and lack of awareness as the main obstacles to adoption. Research by Lee, Kwon and Schumann (2005) on US consumers shows greater concern among prospective adopters than current adopters over transaction security and monetary benefits when choosing an Internet based service. The study by Cunningham et al. (2005) evidences that the perception of possible economic losses associated to the reservation and purchase of airline tickets online is greater than the perceived risk of purchase through traditional channels.

Another important barrier to electronic transactions is consumer disappointment and frustration at violations of consumer privacy. Privacy risk has to do with the possibility that consumer's personal information (name, address, phone numbers etc…) will be disclosed to direct marketers either inside or outside of the company. Internet users perceive privacy risk when they loss control over their personal information, which may be used without their knowledge or consent (Cunningham et al., 2005). In our case, this would occur if the consumer perceived that the airline had violated his or her privacy, for example, by using personal information to send unwanted e-mails.

Consumers and companies perceive close links between privacy and security risk. For example, customer privacy depends on reliable airline information systems. This suggests that the two variables should be dimensions of a single construct (Flavian and Guinaliu, 2006; Pikarrainen, Pikarrainen , Karjaluoto and Pahnila, 2004). This research uses a construct which shows consumer perception of the airline web site's personal data protection practices and the airline information system security measures.

In order to complete literature review, we posit that user perceptions of privacy and security risk may affect Internet shopping intention.

Therefore, we hypothesize that:

H1 The perceived security and privacy risk has a negative influence on Internet airline tickets purchase intention.

Trust

Trust occurs when: "one party has confidence in a exchange partner's reliability and integrity" (Morgan and Hunt, 1994). Previous studies consider confidence to be a multidimensional construct with three different dimensions: honesty, benevolence and competence (Doney and Canon, 1997; Ganesan, 1994; Sirdeshmukh, Singh and Sabol, 2002). Honesty indicates consumer certainty over the company's sincerity and determination to keep promises. Benevolence concerns the consumer's belief that the company is interested in his welfare, has no intention of behaving opportunistically and is motivated by the quest for mutual benefit. Competence refers to the perception of the other party's skill and ability. Nowadays, many companies largely base trust on the competences their customers perceive, especially in perceived high risk environments like Internet.

The source which generates most trust in the consumer is the seller, who, in online purchase is replaced by a web site (Lohse and Spiller, 1998). The relationship between trust and purchase intention has been shown in various sectors: online book stores (Gefen, 2000), online banking (Kassim and Abdulla, 2006; Kim and Prabhakar, 2004; Mukherjee and Nath, 2003) and travel agencies (Gefen et al., 2003).

Previous research (Gefen, 2000; Jarvenpaa, Tractinsky, Saarinen and Vitale, 1999; Kassim and Abdulla, 2006) point out that trust is a critical factor in stimulating online shopping. The uncertainty which an individual often assumes makes trust a necessary component (Gerrard and Cunningham, 2003; Pikarrainen et al., 2004). Otherwise, the consumer is reluctant to use online tourism services (Chen, 2006; Morgan, Prichtard and Abbot, 2001).

Hence, the following research hypothesis:

H2 Trust has a positive influence on Internet airline tickets purchase intention

Trust proves critical in an uncertain and risky environment (Mayer, Davis and Shoorman, 1995) and, as pointed out by Grabner-Kräuter and Kaluscha (2003), online transactions always take place in a risky environment where anonymity, lack of control and potential opportunism are always involved.

The only way to reduce the uncertainty and complexity of transactions in electronic markets is by applying mental shortcuts and, as Luhmann (1979) points out, trust is an effective one. Trust enables people to live in risky and uncertain situations by reducing the number of options one has to consider in a given situation (Lewis and Weigert, 1985).

In this regard, researchers found that perceived risk is influenced by trust toward the transaction partner. Corritore, Kracher and Wiedanbeck (2003) indicate that it has been proved that trust can mitigate risk, fear and complexity in the offline environment, though it is likely that it can do the same in the online environment. Jarvenpaa and Todd (1997) showed that trust works as a mechanism for reducing perceived risk in Internet shopping. Consequently, building trust reduces perceived transaction risk (Mitchell, 1999). This is because trust affects various aspects, such as reducing the number of alternatives to choose from (Kumar, 1996), improving conflict resolution (Hakansson and Sharma, 1996) and reducing the need for control mechanisms (Achrol, 1997). Therefore, it is reasonable to consider that trust may be a mechanism for reducing the perceived risk of using an airline web site.

Therefore, we hypothesize that:

H3. The greater the trust in an airline website, the lower the perceived security and privacy risk.

Consumer Attitude

Attitude is an individual's positive or negative evaluation of a given object or behavior (Ajzen, 1991; Fishben and Ajzen, 1975) and includes feelings or affective responses. It refers to the individual's general willingness to develop behavior. This attitude is the result of individual beliefs concerning the behavior, the results of that behavior and the importance attached to such beliefs.

Prior studies show that attitude has a direct, positive effect on behavior intentions (Davis, Bagozzi and Warshaw, 1989; Jarvenpaa, Tractinsky and Vitale, 2000; Keen, Wetzels, De Ruyter and Feinberg, 2004; Limayem, Khalifa and Frini, 2000). In the context of airline tickets purchase, the study by Kim, Lehto and Morrison (2007) shows that favourable attitudes influences positively the use of Internet as a purchase channel for tourist services.

Therefore, we hypothesize that:

H4 Attitude towards airline travel tickets Internet shopping has a positive influence on airline tickets purchase intention.

Attitudes are determined among other factors, by consumers' beliefs about security and reliability (Koufaris and Hampton-Sousa, 2002). Thus, both trust in the medium and security

and privacy risk have a direct influence on individuals' attitudes towards online shopping (George, 2002).

Prior research has shown that perceived risk in e-commerce has a negative effect on attitude towards the behavior (Fenech and O'Cass, 2001; Van der Heijden, Verhaagen and Creemers, 2003; Shih, 2004; Vijayarathy and Jones, 2000).

Similarly, empirical evidence has underlined the direct, positive influence of trust on shopping attitude (George, 2002; McKnight, Cummings and Chervany, 1998; Pavlou and Fygenson, 2006; Wu and Chen, 2005). Research by George, (2002) and Wu and Chen (2005) have all suggested that trust impacts intention through positive attitude. Pavlou and Fygenson, (2006) suggested that trust is an antecedent of attitude due to confident expectations. McKnight et al. (1998) also posits that trust is a belief that affects attitude, which in turn results in the intention to engage in trust related behavior with specific e-service supplier.

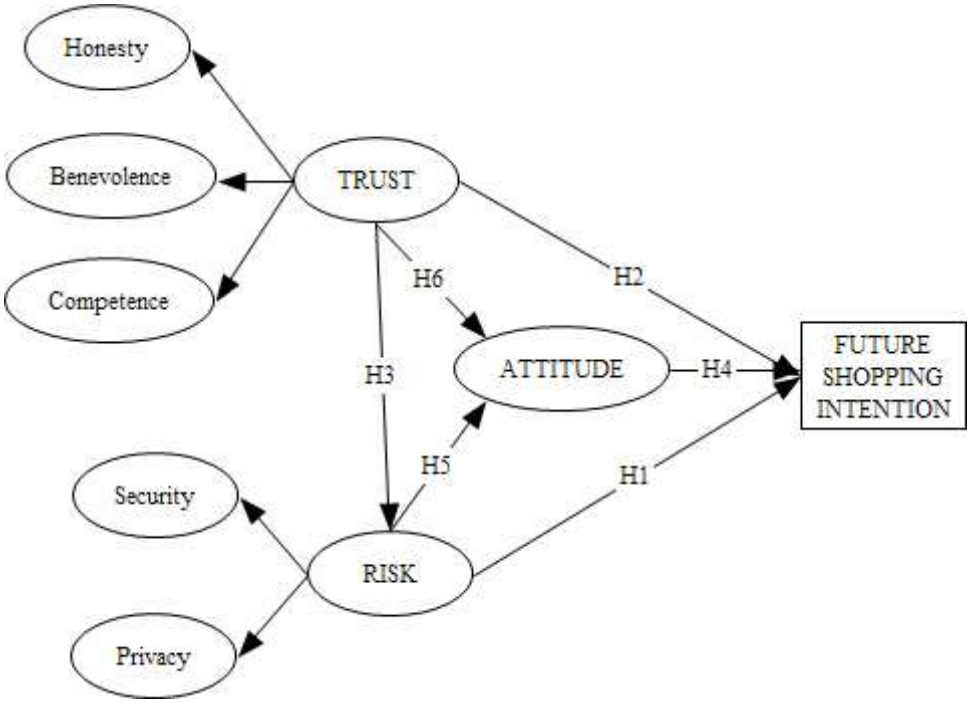
Because trust reduces transaction complexity, we expect that it also results in customers subjectively ruling out undesirable yet possible behaviors of the airline. Therefore, we hypothesize that,

H5 Perceived security and privacy risk have a negative influence on airline travel tickets online shopping attitude.

H6. Online trust in an airline website has a positive influence on airline travel tickets online shopping attitude.

Figure 1 illustrates the conceptual model examined here. The model below shows the influence of trust, perceived privacy and security risk and attitude on future online airline tickets shopping intention.

Figure 1. Conceptual model



METHOD

Sample and data collection

A questionnaire with close-ended questions was used for this study. The sample included non-purchasing Internet users. A total of 430 Spanish Internet users were contacted; 347 agreed to participate. Of the questionnaires received, 309 were analyzed. We did a pre-test with 40 Internet users who have looked for flight information online. The fieldwork was developed in Spain from April to May 2007.

Sampling was by gender and age quotas based on Internet user characteristics periodically examined by the Spanish E-Commerce Association in the study "Surfers on the Net" (AIMC, 2007) which is a important directory of Internet users in Spain.

Table 1, displays demographic variables associated with the sample. Out of the total sample, 65% were men and 35% women. A large percentage of the interviewees belong to the age segment between 16 and 34 (67%) and are also medium educated (50.5%) with an above average level of income (55.7%).

Table 1. Profile of respondents

GENDER	% (n = 309)	OCCUPATION	% (n = 309)
Male	65.0%	Student	47.6%
Female	35.0%	Unemployed	1.3%
AGE	**% (n = 309)**	Housewife	0.3%
Up to 24 years old	27.8%	Self-employed	6.1%
Between 25 and 34	39.2%	Employed	44.7%
Between 35 and 44	20.4%	**EDUCATION**	**% (n = 309)**
Between 45 and 54	9.4%	No formal education	0.3
Over 54 years	3.2%	Primary	3.2%
INCOME	**% (n = 309)**	Secondary	18.8%
Below average (<900 €)	8.7%	3 year Univ. degree	50.5%
Around average (=900 €)	21.0%	5 year Univ. degree and above	27.2%
Above average (>900 €)	55.7%		
Well-above average (>900 €)	14.2%		

Measures

The questionnaire design was based on scales adapted from previous studies and measured by multiple item 7-point Likert-type scales. Table 2 summarizes the items used to measure each construct in the model.

Table 2. Measurement scales

CONCEPT	ITEMS	SOURCE
ATTITUDE TO AIRLINE TICKETS ONLINE PURCHASING	I like the idea. I think it is an intelligent idea. It is a good idea. I think it is a positive experience.	Adapted from Taylor and Todd (1995), Bhattacherjee (2002), George (2004).
FUTURE AIRLINE TICKETS ONLINE PURCHASE INTENTION	I will certainly use Internet to buy airline tickets I shall very probably buy airline tickets on the Internet. I shall probably buy airline tickets on the Internet. I'm not sure if I will buy airline tickets on the Internet. It is unlikely that I will buy airline tickets on the Internet. It is highly unlikely that I will buy airline tickets on the Internet. I will certainly not buy airline tickets on the Internet	Adapted from Taylor and Todd (1995), Gefen and Straub (2000).

TRUST	HON 1. I think that airline websites usually fulfils the commitments they assume HON2. I think that the information offered by airline websites is sincere and honest HON3. I think I can have confidence in the promises that airline websites make HON4. I think airline websites do not make false statements HON5. The airline web sites are characterized by the frankness and clarity of the services that they offer to the consumer BEN1. I think that the advice and recommendations given on the airline websites are made in search of mutual benefit BEN2. I think that airline websites are concerned with the present and future interests of its users BEN3. I think that airline websites takes into account the repercussions that their actions could have on the consumer BEN4. I think that airline websites would not do anything intentionally to prejudice the user BEN5. I think that the design and commercial offer of the airline websites take into account the desires and needs of its users BEN6. I think that the airline websites are receptive to the needs of its users COM1. I think that the airline websites have the necessary abilities to carry out its work COM2. I think that the airline websites have sufficient experience in the marketing of the products and services that they offer COM3. I think that the airline websites have the necessary resources to successfully carry out its activities COM4. I think that the airline websites know its users well enough to offer them products and services adapted to their needs	Doney and Canon (1997), Kumar, Scheer and Steenkamp (1995), Roy, Dewit and Aubert (2001) and Siguaw, Simpson and Baker (1998)
If I used airline websites to buy airline tickets… PRIVACY RISK	PRIV1. I would feel that my personal information could be used without my consent PRIV2.I would feel I would receive a lot of spam in the future PRIV3. I would feel my personal data would be wrongfully used	Flavian and Guinaliu (2006); Featherman and Pavlou (2003); Jarvenpaa and Todd (1997); Stone and Gronhaug (1993)
If I used airline websites to buy airline tickets… SECURITY RISK	FIN1. I worry about giving my credit card number or login to airline websites. FIN2. When I send data to airline websites, I am worried that they will be intercepted and modified by unauthorized third parties like hackers. FIN3. I mistrust airline websites	

FINDINGS

Validation of the measurement scales

In order to confirm the existence of multi-dimensionality in the trust and risk variables, a rival models strategy was developed (Anderson and Gerbing, 1988). For this, we compared a second-order model in which various dimensions measured the multi-dimensional construct under consideration, with a first-order model in which all the items weighed on a single factor (Steenkamp and Van Trijp, 1991). The results, for both trust and risk, showed that the second-order model was a much better fit than the first-order model (see table 3). After verifying scale multi-dimensionality, we checked second order models convergent validity and, therefore, each of the dimensions corresponding to trust and perceived risk was replaced by its arithmetical mean (Roberts, Varki and Brodie, 2003).

TABLE 3. First and second order confirmation models

	Trust		Risk	
Indicators	1 dimension model	3 dimension model	1 dimension model	2 dimension model
Chi-Square	547.4034 90 df. p<0.0000	326.1692 87 df. p<0.0000	157.3432 9 df. p<0.0000	11.4679 8 df. P=0.17657
BBNI	0.718	0.832	0.770	0.983
BBNNFI	0.709	0.843	0.630	0.990
CFI	0.750	0.870	0.779	0.995
IFI	0.752	0.871	0.781	0.995
MFI	0.477	0.679	0.787	0.994
RMSEA	0.128	0.094	0.231	0.038

In validating the transformation from second to first order constructs, items were eliminated if the Lagrange multipliers test suggested significant relations on a factor for which they were not indicators (Hatcher, 1994). In the case of trust, HON1, HON5, BEN5, BEN6 and COM1 were eliminated; no items needed to be eliminated in the case of risk. For trust and risk, all factor loads were over 0.5 (for trust, the lowest value was 0.522 and for risk, 0.633) and therefore significant, thus confirming scale convergent validity. For discriminant validity we applied the test of the variance extracted between the two factors with the highest covariance value. In the case of trust, the two factors were (F1, F2). The square of the covariance takes a value of 0.459, which is lower than the index of variance extracted from both factors (0.666 and 0.625 respectively). In the case of risk, the square of the covariance takes a value of 0.197, which is lower than the index of variance extracted from both factors (0.500 and 0.733 respectively) and therefore discriminant validity is confirmed. For reliability, all Cronbach's α (HON: 87.1; BEN: 86.3; COM: 84.4; SEG: 85.1; PRI: 90.6) were over the recommended

value of 0.7 (Nunnally and Bernstein, 1994). We also calculated composed reliability (HON: 84.6; BEN: 86.9; COM: 85.7; SEG: 75.6; PRI: 78.1) and the variance extracted (HON: 66.6; BEN: 62.5; COM: 66.5; SEG: 50.0; PRI: 73.3), both of which were over the recommended minimum (0.7, in the first case and 0.5 in the second).

These results show a good fit of the measurement model for trust (S-B $\chi 2$ (df=32) =80.1301 (p<0,00); NFI=.928; NNFI=.937; CFI=.955; IFI=.956; RMSEA=.070), and reliability (S-B $\chi 2$ (df=8) =11.4679 (p=0,176); NFI=.983; NNFI=.990; CFI=.995; IFI=.995; RMSEA=.038).

Having verified the psychometric properties of transforming the constructs risk and trust into factors with first order indicators and as a preliminary step to estimating the structural equations system which allows us to test the hypotheses, the measurement model was also checked for the appropriate properties.

Confirmatory analysis evaluated convergent and discriminant scale validity, with statistical software EQS version 6.1 and Robust Maximum Likelihood Estimation. We did not have to change the composition of the scales because model fit was initially acceptable. All the factor regression coefficients were significant (t>2.56), standardized loads were above 0.6 and model fit was good (S-Bχ^2 = 38.5967, df. =24, p=.030; BBNFI=0.961; BBNNFI=0.977; CFI=0.985; IFI=0.985; MFI=0.977; RMSEA=0.044). These results confirm there is convergent validity (see Table 4).

Table 4. Measurement model: convergent validity

Factor	Indicator	Standardised Loading	Robust T Value	Mean loading
Trust	HON	0.738 **	10.604	0.808
	BEN	0.910**	15.592	
	COM	0.776**	12.083	
Risk	SEG	0.763**	9.100	0.734
	PRI	0.706**	8.679	
Attitude	ATT1	0.885**	17.872	0.862
	ATT2	0.919**	17.310	
	ATT3	0.936**	16.806	
	ATT4	0.709**	12.368	

**p<.01; *p<.05

We guaranteed content validity by using reliable, valid scales verified by other authors in previous studies (see Table 2).

We evaluated discriminant validity by verifying that the correlation between each pair of scales was not significantly higher than 0.8 points (Bagozzi, 1994) (trust-risk: (0.501); trust-attitude: (0.455); risk-attitude; (0.322)). Second, we checked that the value 1 did not appear in

the interval of trust of the correlations between the different scales (trust-risk: (-0.653;-0.349); trust-attitude: (0.557; 0.353); risk-attitude; (-0.382; -0.062)). The results confirm the discriminant validity.

The results in the scale reliability analysis using Cronbach's alpha (Cronbach, 1951) show satisfactory values, exceeding the minimum threshold of 0.7 points (Churchill, 1979) in all cases. However, as an extra measure, we calculated the values of the average variance extracted or AVE and the composite reliability (Fornell and Larcker, 1981). The results were satisfactory, being above the recommended minimum of 0.5 and 0.7 (see table 5)

Table 5. Scale reliability

	Trust	Risk	Attitude
Cronbach's alpha	0.85	0.70	0.92
Composite reliability	0.894	0.701	0.922
Average variance extracted	0.769	0.540	0.751

Hypotheses testing

After evaluating the psychometric properties of the measurement instrument, the structural model shown in Figure 1 which summarises the hypotheses posited was estimated. After identifying the model, it was estimated by the maximum robust likelihood method, using EQS 6.1 again, because this method guarantees consistency in the estimation even when the normality assumption does not hold (Babakus and Ferguson, 1987). As robust estimation methods were used, only robust fit indices provided by EQS will be shown.

The initial model estimation (S-Bχ2= 65.143, df.=30, p<.05; BBNFI=0.841; BBNNFI=0.850; CFI=0.867; IFI=0.867; MFI=0.845; RMSEA=0.082), indicates the need to re-specify the hypothetical model. Therefore, we re-specified the initial model deleting the non-significant relationships (trust-intention and risk-intention). Elimination of these relations led us to the final model which offers a good fit (S-Bχ2= 67.520, df. =32, p=.00024; BBNFI=0.939; BBNNFI=0.953; CFI=0.967; IFI=0.967; MFI=0.944; RMSEA=0.045).

The empirical estimates for the main-effects model are shown in Figure 2.

Figure 2. Structural model. Standardized solution

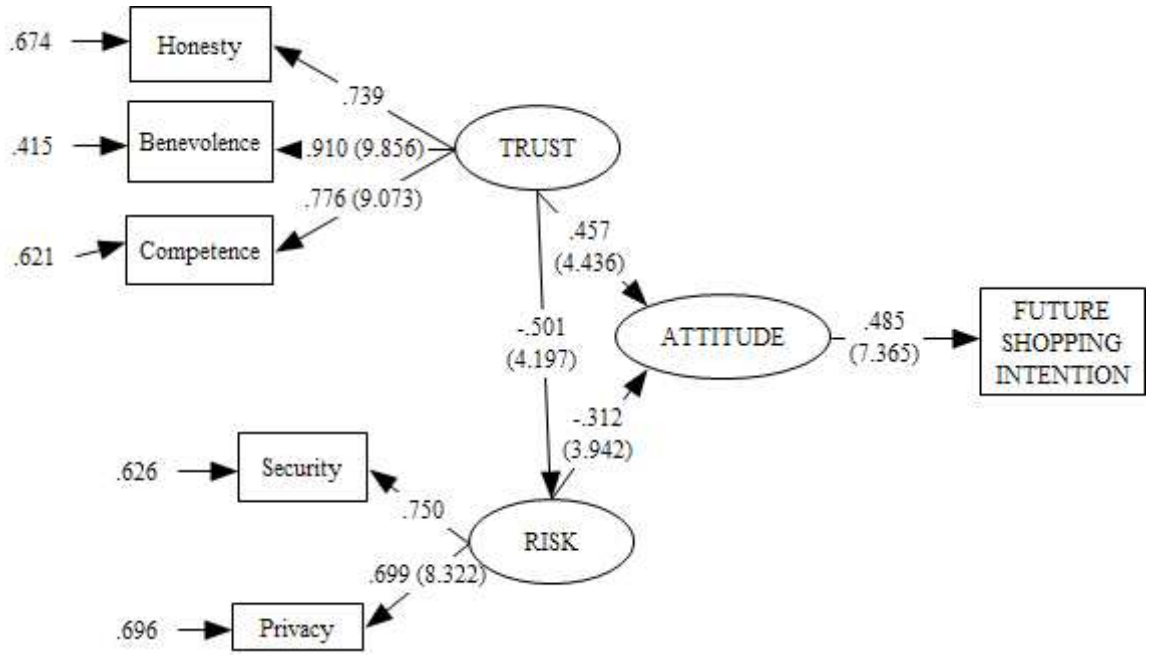


Figure 2 evidences the key role of attitude in the adoption of airline travel tickets online purchasing (H4 supported; B=0.485; p<0.01). Trust and perceived risk are also key factors in explaining Internet shopping adoption. But, the hypothesized direct effects of risk and trust are not supported. The role of risk (H5 supported; B=-0.312; p<0.01) and trust in the airline websites (H6 supported; B=0.457; p<0.01) appears to be influencing positively on attitude which is a very clear positive determinant of airline travel tickets online shopping intention. Moreover, trust in the airline website has a direct, negative influence on perceived risk (H3 supported; B=-0.501; p<0.01). Therefore, consumers who trust airline websites the most, develop more favorable attitudes and perceive less risk associated to online purchases than consumers who do not trust airline websites.

CONCLUSIONS AND IMPLICATIONS

The main contribution of this paper is the proposal and empirical verification of an integrating model for the influence of trust, perceived security and privacy risk and attitude in the purchase intention of online tourism services and the relationships among these variables.

The findings from the empirical study indicate that both perceived purchase risk and trust are variables which directly influence the attitude towards airline tickets online purchasing. Although trust and perceived risk do not directly influence behavior, they do have an indirect influence through attitude. If an Internet user trusts an airline web site and perceives less

purchase risk, then this positively influences attitude towards the airline website which can then lead to the purchase intention. The influence of attitude on the use of online travel services is consistent with previous studies in other countries which show that attitude is one of the main precursors to present and future intention to use online travel services (Athiyaman, 2002; Hae et al., 2007).

Another important finding is that the more trust e-shoppers have in travel e-shopping, the lower their risk perception will be. From a theoretical point of view, the findings of this study imply that trust is a key variable which acts to reduce the perceived risk of purchasing airline travel tickets online and positively influences attitude. Trust, therefore, is a mechanism which can reduce the complexity of consumer decision-making in high uncertainty situations, as in the case of online purchases. This means that all aspects of interaction with actual or potential customers should be carefully managed as trust in the provider is a function of people's general perception of competence, honesty, and benevolence and is formed through, for example, word-of-mouth or own experiences.

This result involves a series of actions by airlines in the sector. Firstly, sincerity and transparency are worthwhile in terms of fulfilling the commitments and promises made. Secondly, the airline's communication policy must be to transmit a message which promotes achievement of objectives which are complementary to those of the consumer and which provide him or her with a greater sense of well-being. Thirdly, considerable investment is needed to provide the resources necessary to improve performance of the tasks and ensure that consumers perceive greater competence and skill in the organisation they are interacting with.

We suggest the use of independent consumer testimonials and to include an "About us" section, presenting the company, its mission, identity and e-commerce procedures. Practitioners should not forget that airlines have a greater chance to enhance the trusting beliefs of their customers as most of the airlines are already on the market with years of customer relationships and established brands and recognition.

Regarding security risk, our results reveal its key role in inhibiting airline tickets online purchasing and confirm a great deal of previous research that have stated that the greatest challenge to the e-commerce will be winning the trust of customers over the issues of security and privacy (Bestavros, 2000; Furnell and Karweni, 1999). Assuming that most airline websites have incorporated common technologies to secure online transactions, the thing that is keeping the customers away from Internet shopping is the lack of awareness of that fact.

Advertising and third-party trust-certification bodies are crucial in the task of raising awareness.

Therefore, in order to reduce perceived risk, online customers need to know that personal data is confidential and that there are data encryption platforms to guarantee security in online transactions. It is possible to decrease the perceived risk in web sites by allowing the user to contact the airline, providing users with information on their consumer rights and personal data protection and on the web site's security systems (thereby helping to reduce privacy risk and security risk). All these measures will help airlines to improve the effectiveness of their web sites, solve interaction problems, improve consumer attitudes and increase sales.

Privacy risk implies that consumers are reluctant to share personal information for fear that their life will become an open book. Recommendations could focus on building trust before building the customer profile, avoiding forcing to fill out forms as a prerequisite for obtaining information on the web site, letting the consumers know in a prominent position on the site that any data exchanged is confidential, and letting them decide how they would like to receive information. If they prefer e-mail, care should be taken not to flood their in-box.

The importance of the influence of attitude on purchase intention means that airline managers need to analyze continuously and systematically the factors in the use of airline websites which improve consumer attitude (website user-friendliness, range of products, cost savings, service quality, etc.) as in the end, the more customers with positive attitudes towards online purchases the more expected profit for the airline.

The conclusions obtained have a series of limitations and open new lines of research of interest for the future. From a theoretical point of view, the framework of this research is restricted to its own objectives. This study has pondered the relationship between trust, perceived security and privacy risks and attitude, while other antecedents or consequences of the purchase intention of online travel services have not been considered. From a methodological perspective, the results from this study can be generalized for airlines service providers, as the study has only been applied to these businesses.

A future line of research could be to develop and validate a scale to measure all types of perceived purchase risk in airline tickets online shopping adoption. The consumer's cultural background is one of the aspects which can influence the creation of a favourable climate for developing and consolidating electronic transactions worldwide. For this reason, another

interesting line of research would be to contrast the validity of the proposed behavioral model with samples of consumers from other cultures and to compare the results obtained.

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