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## El efecto moderador de la incertidumbre eludida en el valor percibido global del proceso de compra online

### RESUMEN

El objetivo de este estudio es analizar las diferencias en la formación del valor percibido global de un servicio adquirido por Internet y las consecuencias en el comportamiento de los consumidores internacionales, tomando como variable moderadora su aversión al riesgo. La muestra está formada por 300 consumidores internacionales que han contratado un servicio vía Internet. Los resultados establecen que en la determinación del valor percibido global, donde se recoge tanto la compra online como el disfrute del servicio, se producen efectos moderadores principalmente debidos a la dimensión cultural de aversión al riesgo. Concretamente, se analiza cómo está formado el valor percibido global cuando se tiene en cuenta todo el proceso de compra y las variaciones que se producen en el proceso en función de si los consumidores son españoles o británicos.

**Palabras Clave:** Valor percibido global; Satisfacción online; Riesgo percibido; Precio monetario; Incertidumbre eludida.

## The moderating effect of uncertainty avoidance on overall perceived value of the online purchasing process

### ABSTRACT

The aim of this study is to analyse differences in the overall perceived value of a service purchased online, and the consequences for international consumer behaviour, taking consumers´ uncertainty avoidance as a moderating variable. A questionnaire was administered to 300 international consumers who had purchased a service via the Internet. The results reveal that in the formation of overall perceived value – which embraces both the online purchase and also enjoyment of the service – moderating effects are generated by uncertainty avoidance. It explores how overall perceived value is formed when the entire purchasing process is taken into account, and the variations that occur in this process depending on whether it relates to Spanish or British consumers..

**Keywords:** Overall perceived value; Online Satisfaction; Perceived Risk; Monetary Price; Uncertainty Avoidance.

**JEL classification: M31**

# The moderating effect of uncertainty avoidance on overall perceived value of the online purchasing process.

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## 1. INTRODUCTION

The use of the Internet has enhanced the way consumers relate to one another, how they search for information and how they purchase (Heim and Sinha, 2005; Ranaweera et al., 2008). Online consumer behaviour is well covered by the literature (Gong, 2009), particularly in the theories of planned behaviour and reasoned action, and the model of technology acceptance, however few works analyse other related factors such as the influence of culture on consumer behaviour online (Cheung et al., 2005). Prior studies reveal that if cultures and consumer behaviours differ, then marketing strategies should adapt accordingly to such differences (Cheung et al., 2005). Also, earlier studies establish that transactions carried out over the Internet can provoke high levels of uncertainty (Vishwanath, 2003). Cunningham et al. (2005) affirm that the impact of perceived risk in an online context is greater during the online purchase phase than at the alternative evaluation phase. However, individuals differ in their tolerance of uncertainty and in their reactions to situations that generate a certain ambiguity. It is also established that tolerance of uncertainty is determined by personality and the level of risk aversion people feel (Hofstede, 2001).

In online behaviour, it has been proposed that perceived value is the essential outcome in evaluating firms' marketing activities (Oh, 2003; Holbrook, 1994). It is also considered one of the key constructs in competitive advantage (Lee and Overby, 2004), for its importance in consumer behaviour (Gallarza and Gil, 2006; Cronin et al., 2000). What is needed, then, are models of perceived value that go deeper, taking an overall perspective on the consumer's experience, embracing both the purchasing and the consumption stages.

Hence the aim of the present work is to analyse differences in online purchasing behaviour and in consumption behavior, using consumers' uncertainty avoidance as a moderating variable of antecedents and consequences of customer value. Specifically the intention is to understand the influence that uncertainty avoidance has on the antecedents and consequences of overall perceived value as viewed by consumers from two different nationalities, Spanish and British. The research is based on two nationalities that score differently in the cultural dimension of uncertainty avoidance identified by Hofstede (2001).

The key contributions of the work are: to analyse the formation of overall perceived value for the purchasing process relating to a given service, and the enjoyment of that service; and to establish the moderating effect of one of the cultural dimensions with the greatest impact on online consumer behaviour, namely uncertainty avoidance. Furthermore, the present study

provides information of value to those offering online services, since providers often present simply a translated version of their website to attract tourists from different nationalities, without taking into consideration that more significant changes are necessary in order to be truly effective (that is, achieve conversion).

## 2. LITERATURE REVIEW

### 2.1. Perceived Value

The literature review reveals that the majority of definitions of perceived value, both in terms of traditional media and also online media, focus on one stage only of the purchase decision-making process (Lin and Peng, 2005 Fornell et al., 1996; Dodds et al., 1991; Zeithaml, 1988). However, a global perspective on perceived value offers a more complete view, in that it measures value pre-purchase, during purchase, and post-purchase (Zeithaml, 1988; Oliver, 1997).

Overall perceived value can be defined as "an overall assessment of the utility of aproduct or service based on perceptions of what is received and what is given" (Zeithaml, 1988). In this definition, perceived value as a construct is formed by two factors: benefits received, and sacrifices made by the client (Cronin, et al., 2000; Dodds, et al., 1991; Grewal, et al., 1998).

Two of the major antecedents exercising a positive effect on perceived value are perceived quality and satisfaction. Both theoretically, using conceptual models (Chen and Dubinsky, 2003; Cronin et al., 2000), and also taking an empirical approach (Liao and Wu, 2009; Hume, 2008; Kumar and Lim, 2008; Kim et al., 2008; Snoj et al., 2004), quality is considered a determining factor in perceived value. Satisfaction is another antecedent that has a positive influence on perceived value (Sakthivel and Raju, 2006; Khalifa, 2004), particularly in terms of the phases of purchase and enjoyment – such as satisfaction with the electronic intermediary. Similarly, the result of the purchasing process will influence the consumer's perception of the quality of the purchase consumed.

Furthermore, satisfaction with the electronic medium itself will be determined by the perceived quality of the online service, embracing both website design as well as quality of content. The construct of website quality is comprised by ease of use; availability; effectiveness; privacy (Parasuraman et al., 2005); and relevant information (Castañeda, 2005; Heim and Sinha, 2001). Previous studies assert that ease of use is a tool for measuring online

satisfaction of the end-user (Abdinnour-Helm et al., 2005). As regards the availability dimension, although the previous literature establishes that this dimension is confirmed to be a primary aspect of website quality (Zeithaml et al., 2002), it is not a construct that influences online satisfaction as the user takes for granted the availability of the website when making his online purchase. With regard to the relationship between website effectiveness and online satisfaction Massad et al. (2006) assert that the attitude of service providers and the effectiveness of their interaction with clients positively influence satisfaction with the online purchase. With reference to privacy, this plays a significant role in the assessment made by consumers of a website and also influences perceptions of overall quality (Parasuraman et al., 2005) and consequently also satisfaction amongst users. As regards relevant information, the literature reveals that content based on relevant information is a major indicator of user satisfaction (Zeithaml et al., 2002; Sindhuja and Dasticar, 2009).

Regarding those antecedents with a negative influence on perceived value, the monetary price and perceived risk are the two sacrifices most commonly used to explain the formation of perceived value on the Internet (for example, Gupta and Kim, 2010; Liao and Wu, 2009; Chen and Dubinsky, 2003). The price is an indicator of product or service quality and an element that influences perceptions of risk. The literature review reveals that price is considered an extrinsic indicator of perceived quality (Zeithaml, 1988; Monroe, 1990; Dodds and Monroe, 1985; Dodds, 1995). Several researchers hold that price is an inherent component of perceived risk, such that when prices rise, the risk of not being able to obtain the product or service is higher (Grewal et al., 1998).

In the present study, perceived risk is defined as the consumer's perception of the uncertainty and adverse conditions surrounding a transaction with the seller (Gupta and Kim, 2010). When addressing the inter-relationships between the variables influencing perceived value, there is agreement that a higher level of perceived risk has a negative impact on perceived value (Sweeney et al., 1999; Teas and Agarwal, 2000; Snoj et al., 2004).

Furthermore, several studies suggest that perceived value is one of the most important determinants of intention to repeat purchase and intention to repeat visit (Bojanic, 1996; Jayanti and Ghosh, 1996). Finally, growth in online commerce both nationally and in international markets (Soopramanien and Robertson, 2007) has triggered the need to predict consumer behaviour in relation to use of the Internet for their purchasing intentions (Gopi and Ramayah, 2007).

**Figure 1. Conceptual framework for the purchase decision-making process.**
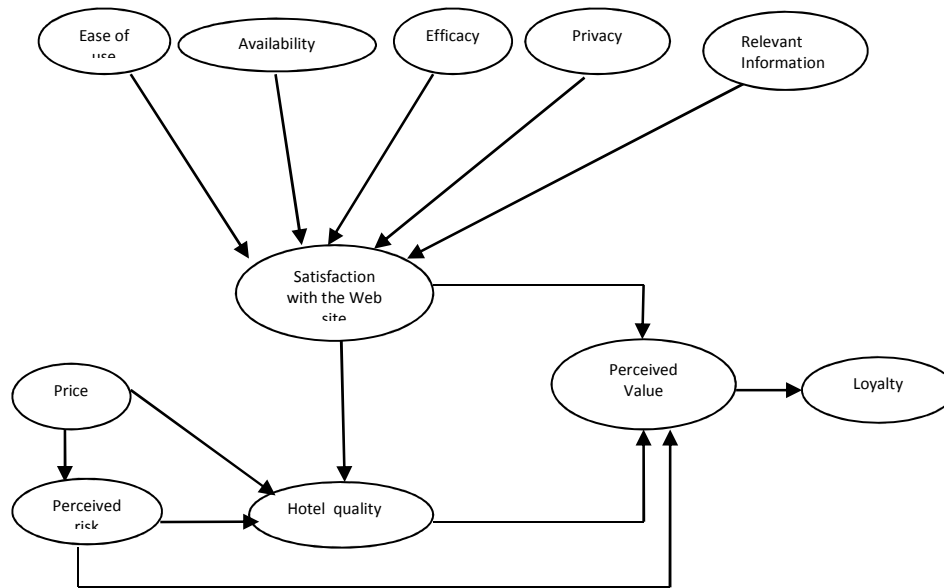


## 2.2. The Moderating Effect of Uncertainty Avoidance

Earlier studies assert that when seeking to compare behaviours in the purchase decision-making process in the context of different cultures, the most appropriate framework is that proposed by Hofstede (1980) (Sondergaard, 1994). Hofstede (1980; 2001) affirms that culture comprises of four dimensions – power distance; masculinity/femininity; individualism/collectivism; and uncertainty avoidance – and their importance has been demonstrated in different spheres (Steemkampt et al., 1999). However the uncertainty avoidance dimension is the most widely-used in the literature on online consumer behaviour, not only for its ease of interpretation in the context of the online market, but also because the existing literature shows that individual characteristics such as perceived risk and trust are amongst the most important determinants of consumers´ purchase behaviour (Cheung et al., 2005). The risk involves the uncertainty regarding the outcome of a decision ad the costs that this decision might imply for the buyer, as other authors have done for the online context (Gefen et al., 2002). It is widely accepted that the higher the lever of risk, the lower the likelihood of transaction success. Indeed, it is normal to conceptualize risk in terms of the probability of obtaining a negative result. The literature suggests that perceived risk is a factor affecting online buyer behaviour (Vijayasarathy and Jones, 2001).

Taking Figure 1 into account, the literature shows uncertainty avoidance as being the most relevant dimension when analysing the online purchase decision-making process.

**Privacy – Online Satisfaction**

The literature highlights that there may be variations in the relationship between privacy and online satisfaction, created by uncertainty avoidance, since this cultural dimension is related to the consumer's perception of privacy (Jarvenpaa and Tractinsky, 1999).

Online purchasing represents a complete change in buying habits and lifestyles. For this reason, it is to be expected that people from cultures with high uncertainty avoidance will be more inclined to shy away from online purchasing than those from cultures with low uncertainty avoidance (Lim et al., 2004). It follows, then, that individuals from these two differing types of culture may also differ in terms of their perceptions, beliefs and use of the Internet for making purchases (Kim and Peterson, 2003). For example, to mitigate uncertainty, individuals with high uncertainty avoidance may require more assurances as regards their privacy than those from cultures with low uncertainty avoidance; hence greater security would imply greater satisfaction for those individuals from cultures with a high level of uncertainty avoidance. Thus, the following hypothesis is proposed:

> *$H_1$. The positive effect of perceived privacy on satisfaction with the website is moderated by the consumer's national culture, such that this influence is significant amongst cultures with high uncertainty avoidance and not significant amongst cultures with low uncertainty avoidance.*

**Monetary price – Perceived risk**

Variations can arise in the relationship between monetary price and perceived risk that can be attributed to the national culture of the consumer. Specifically, uncertainty avoidance can impact on this relationship as it is linked to the consumer's perception of risk (Jarvenpaa and Tractinsky, 1999).

The literature affirms that cultures with low uncertainty avoidance are more tolerant of risk, and that people from these cultures tend to be more innovative, enterprising, and willing to try new things. Conversely those countries with high uncertainty avoidance value security, rules and formality. Their citizens are more resistant to change and tend to avoid or minimise risk, hence they are less inclined to innovate (Gong, 2009). It follows, then, that, given that a greater degree of innovation may be related to a higher price, those societies characterised by

a high level of uncertainty avoidance – with a lower level of innovation – may associate a higher price with a higher level of risk. Thus, the following hypothesis is proposed:

*$H_2$. The positive effect of monetary price on the perceived risk of the online purchase is moderated by consumer's national culture, such that this influence is significant amongst cultures with high uncertainty avoidance and not significant amongst cultures with low uncertainty avoidance.*

**Perceived risk – Perceived hotel quality and overall perceived value**

The relationships between perceived risk and perceived quality, and perceived risk and overall perceived value, may display variations due to consumers' national cultures – specifically to the degree of uncertainty avoidance in the cultures being studied (Hofstede, 1980, 2001). This statement is all the more true when referring to researching and purchasing products online. In this realm, consumers from societies with a high degree of uncertainty avoidance are more concerned with promises made by service providers and with security (Lee and Joshi, 2007) – in other words, with service quality. Hence, bearing in mind the characteristics of the context that surrounds the online purchase decision-making process, the risk assumed in the purchasing decision will impact on the perceived quality of the product. It is not unreasonable to assume, then, that there will be a negative relationship between risk and perceived quality, whilst this element will have less of an influence on the formation of perceptions of quality when uncertainty avoidance is low.

Following a similar argument, perceived risk may have a negative influence on the overall assessment of the purchasing process amongst individuals characterised by a high level of uncertainty avoidance. Given that one of the dimensions of culture is uncertainty avoidance, it may be that the relationship between perceived risk and overall perceived value is shaped by an individual's national culture. Hence it would be that consumers from cultures with a high level of uncertainty avoidance show a stronger negative relationship between perceived risk and perceived value than do those from cultures characterised by low uncertainty avoidance. The following hypotheses are thus put forward:

*$H_3$. The negative effect of the perceived risk of online purchasing on perceived quality of the hotel is moderated by the consumer's national culture, such that this influence is significant amongst cultures with a high level of uncertainty avoidance and not significant amongst cultures with a low level of uncertainty avoidance.*

*H4. The negative effect of perceived risk on overall perceived value is moderated by the consumer's national culture, such that this influence is significant amongst cultures with a high level of uncertainty avoidance and not significant amongst cultures with a low level of uncertainty avoidance.*

The hypotheses proposed give rise to the relational model that seeks to explain the moderating effect of uncertainty avoidance on the overall perceived value of the online purchase. However, it is safe to presume that the degree of influence of uncertainty avoidance on the relationship between constructs in the perceived value model differs according to consumers´ culture of origin. Hence, the present study proposes that uncertainty avoidance is a cultural dimension that moderates the relationships established in the model pertaining to overall perceived value according to the consumer.

## 3. METHODOLOGY

### 3.1. Sample design and data collection

The sample was designed in light of two criteria: a) it should be representative of the target population of the study; and b) it should enable analysis of the effect of cultural dimensions on the online purchasing behaviour of consumers from different nationalities.

The target population consists of international consumers that meet a series of requirements: a) The country of residence should match nationality; b) The consumers must have booked and paid for a hotel the 12 months prior to the survey.

A sample is selected representing two nationalities, British and Spanish, for the following reasons: 1) Spain (86) and the United Kingdom (35) differ significantly in the cultural dimension of uncertainty avoidance (a difference in score of 51) (Hofstede, 1980, 1991, 2001). 2) Data on Internet use amongst Spanish and British citizens are very similar, at 71.8% and 76.4% respectively (Internet World Stats, 2009).

Random sampling was carried out on the two groups, with surveys distributed in line with the size of geographical areas, distinguishing between large, medium-sized and small cities. Table 1 shows the socio-demographic characteristics and distribution of the sample by area. Table 2 shows the technical specifications of the sample.

**Table 1. Socio-demographic characteristics**

|  | n | % |  |  |  |  |
|---|---|---|---|---|---|---|
| **Men** | 154 | 51.4% | | 90% of households with two or more people | | |
| **Women** | 146 | 48.6% | 93% > 35 years | 59 % with university education | | |
| | | | | 74 % in paid work | | |
| | | | **SPAIN** | | **U.K.** | |
| **Data on Internet use** | | | 71.8% | | 76.4% | |
| **Score uncertainty avoidance** | | | 86 | | 35 | |
| **Geographical area** | | | | | | |
| **Large** | | | Madrid<br>Barcelona<br>Seville | 80 | London<br>Manchester<br>Birmingham | 78 |
| **Medium** | | | A Coruña<br>Alicante<br>Córdoba<br>Murcia | 52 | Liverpool<br>Bristol<br>Cardiff<br>Plymouth | 52 |
| **Small** | | | Huesca<br>Toledo<br>Cáceres<br>Logroño<br>Sta. Cruz de Tenerife | 27 | Portsmouth<br>Brighton<br>Ipswich<br>Norwich<br>Exeter | 26 |

**Table 2. Technical specifications**

| | |
|---|---|
| **Data gathering method** | Telephone Survey |
| **Sample unit** | Consumers from Spain and the U.K.:<br>- Who contracted their hotel online in the last 12 months.<br>- Whose nationality = country of residence. |
| **Sample size** | 300 consumers:<br>- Spanish (150)<br>- British (150) |
| **Sample error** | 0.056 (base on SRS; p=q=0,5; confidence level 0.95) |
| **Fieldwork** | Pre-tests 1: July – August 2008<br>Pre-tests 2: September – October 2008<br>Final questionnaire: December 2008 – February 2009 |

Two pre-tests were undertaken prior to the final questionnaire, firstly to analyse the reliability of the scales used and secondly to check that errors in the first pre-test had been corrected, as well as to demonstrate the applicability of Hofstede's cultural dimension of uncertainty avoidance in the service sector. To demonstrate applicability, the questions and formulas from the "Values Survey Module, 2008" referring to uncertainty avoidance as a cultural dimension proposed by Hofstede were used (table 3).

**Table 3. Scores obtained in the pre-test**

| Cultural dimension | Nationality | Result | Hofstede scoring |
|---|---|---|---|
| **Uncertainty avoidance** | **British** | 38.44 | 35 |
| | **Spanish** | 63 | 86 |

These findings show that uncertainty avoidance is confirmed in the marketing realm, specifically in terms of international consumer behaviour. Notably the findings reveal little variation compared to Hofstede´s scoring, and those variations that do occur are within limits that permit the assertion that characterisation of this cultural dimension is in line with Hofstede. The questionnaires were administered by native speakers, to ensure correct interpretation of the questions.

### 3.2. Measurement scales

Perceived online quality: the scale developed by Parasuraman et al. (2005) is chosen. This is made up of ease of use, availability, effectiveness and privacy. To this, the dimension of ´relevant information´ (Castañeda, 2005; Heim and Sinha, 2001) has been added.

Online satisfaction: this is measured using two items widely accepted throughout the literature –degree of satisfaction and degree of pleasure (Oliver, 1981; Szymanski and Hise, 2000; Castañeda et al., 2007).

Perceived quality of the hotel: this is measured using an adapted version of the scales used by Dodds et al. (1991), Grewal et al. (1998), Sweeney et al. (1999) and Teas and Agarwal (2000).

Monetary price: the scale used by Yoo et al. (2000) is adapted by applying the original scale in the service market.

Perceived risk: a scale is chosen with two items adapted from studies analysing perceived risk online (Gupta and Kim, 2010; Chen and Dubinsky, 2003; Sweeney et al., 1999).

Perceived value: A scale used in the service sector is used, based on the fact that scales measuring perceived value online do not offer a measurement of overall value (Gallarza and Gil, 2006; Cronin et al., 2000; Zeithaml, 1988).

Loyalty: this is addressed from a one-dimensional perspective that considers intention to repeat purchase and word-of-mouth communication as one single dimension, as per the works of Gallarza and Gil, (2006) and Zeithaml et al. (1996).

All of these dimensions are measured on a Likert scale, numbered 1-5.

### 3.3. Standardization of data

Cross-cultural research involves working with individuals from different cultures and thus raises the question of whether the responses obtained are comparable (Van de Vijver and Leung, 1997).

The main aim is to minimise or remove any cross-cultural differences that do not derive from the variables under study but rather from the different sets of responses and methodological instruments used (Van de Vijver and Leung, 1997). Hofstede and Van de Vijver and Leung (1997) argued that researchers must control deviation or variance error in cross-cultural research. Hence, given that different response patterns are a form of deviation, researchers must standardise their data to reduce the variance error.

The literature affirms that several researchers have focused on determining whether data are contaminated by style of response or not. In order to detect extreme response styles, Cheung and Resvold (2000), use a multi-group factorial analysis to test for contamination of data by response styles. They propose, checking the factorial invariance to detect equality of factor loading, and examining whether members of both cultures give the same weight to the indicators. Thus if invariance is confirmed, differences in the latent means indicate substantial differences between cultures. Conversely, if invariance is unconfirmed, the styles of response, affected by factors other than the content of the question concerned, can be presented in the data.

In this research, the technique proposed by Cheung and Resvold (2000) is employed, to discern the degree of contamination of data derived from the response styles of each of the cultures under study.

The factorial invariance will be detected by analysing the variations arising when adjusting from the CFA model, from a free multi-group model (m1), to another where factor loading is restricted to equal (m2). Thus the absence of significant differences in the Chi-squared of m1 and m2 is an indicator of factorial invariance (Table 4).

**Table 4. Comparison of Models 1 and 2**

|  | Model with restriction | Model without restriction | Chi² difference |
|---|---|---|---|
| **Comparison of Models 1 and 2** | 1706.41 <br> d.f. = 1103 | 1649.62 <br> d.f.=1079 | 56.79 d.f.=24 <br> p-value < 0.0001 |

Significant differences can be seen between Models 1 and 2, such that invariance between the two models cannot be affirmed. This confirms the existence of bias in the extreme response styles derived from comparison of the two, culturally different, samples.

To eliminate this bias, the 'Standardization within groups Method' was used (adjustment between variables) (Fischer, 2004), such that each variable has the same mean and the same variance. This model assumes that scoring of the overall percentage and/or the variance are comparable amongst variables, so that bias in the styles of response between and within each culture can be eliminated, based on the assumption that it may be that responses from within the same culture may not be homogeneous either, given the possible influence of other socio-demographic characteristics. By using this approach it is possible to undertake a factorial analysis of the variables of the data set and be sure that the resulting dimensions are 'pure' representations of the factors, unadulterated by the moderating effect of the response bias, given that the mean score of each culture for each variable is zero.

## 4. FINDINGS

There now follows an analysis and discussion of the key results arising from the research. Firstly, as regards evaluation of the measurement model it was proven that Cronbach's alpha ($\alpha$) and the reliability coefficient (R2) are within the limits recommended by the literature. Composite reliability (CR) and average variance extracted (AVE) were also calculated, with favourable results – above 0.7 and 0.5 respectively (see Table 5).

**Table 5. Evaluation of measurement model**

| Dimension | Items | α | CR | AVE | R² | Stand. coeffic. (t value) |
|---|---|---|---|---|---|---|
| **Ease of use** | FAC2 | **0.856** | **0.86** | **0.56** | 0.44 | 0.67 (----) |
| | FAC3 | | | | 0.77 | 0.88 (11.94) |
| | FAC4 | | | | 0.52 | 0.72 (11.52) |
| | FAC5 | | | | 0.71 | 0.84 (11.86) |
| **Availability** | DISP1 | **0.826** | **0.83** | **0.54** | 0.57 | 0.75 (----) |
| | DISP2 | | | | 0.66 | 0.81 (13.01) |
| | DISP3 | | | | 0.51 | 0.72 (11.72) |
| | DISP4 | | | | 0.44 | 0.66 (11.08) |
| **Effectiveness** | EFIC1 | **0.812** | **0.81** | **0.52** | 0.49 | 0.70 (----) |
| | EFIC2 | | | | 0.53 | 0.73 (13.87) |
| | EFIC3 | | | | 0.56 | 0.75 (10.78) |
| | EFIC4 | | | | 0.51 | 0.72 (11.50) |
| **Privacy** | PRIV1 | **0.815** | **0.82** | **0.61** | 0.76 | 0.87 (----) |
| | PRIV2 | | | | 0.47 | 0.69 (11.11) |
| | PRIV3 | | | | 0.58 | 0.76 (12.87) |
| **Relevant Information** | INF1 | **0.886** | **0.89** | **0.66** | 0.52 | 0.72 (----) |
| | INF2 | | | | 0.61 | 0.78 (14.22) |
| | INF3 | | | | 0.77 | 0.88 (14.90) |
| | INF4 | | | | 0.75 | 0.87 (13.51) |
| **Satisfaction with the website** | SAT1 | **0.872** | **0.87** | **0.77** | 0.79 | 0.89 (----) |
| | SAT2 | | | | 0.76 | 0.87 (19.22) |
| **Quality of the hotel** | CALH1 | **0.871** | **0.88** | **0.78** | 0.67 | 0.82 (----) |
| | CALH2 | | | | 0.89 | 0.94 (13.03) |
| **Monetary price** | PREC1 | **0.791** | **0.82** | **0.71** | 0.43 | 0.66 (----) |
| | PREC2 | | | | 0.99 | 1 (4.69) |
| **Perceived risk** | RP1 | **0.753** | **0.76** | **0.61** | 0.51 | 0.71 (----) |
| | RP2 | | | | 0.71 | 0.84 (6.38) |
| **Perceived value** | VP1 | **0.913** | **0.91** | **0.78** | 0.77 | 0.88 (----) |
| | VP2 | | | | 0.83 | 0.91 (19.37) |
| | VP3 | | | | 0.73 | 0.86 (21.19) |
| **Loyalty** | LEA1 | **0.870** | **0.88** | **0.65** | 0.32 | 0.57 (----) |
| | LEA2 | | | | 0.72 | 0.85 (10.22) |
| | LEA3 | | | | 0.81 | 0.90 (9.93) |
| | LEA4 | | | | 0.76 | 0.87 (9.58) |

Following evaluation of the adequacy of the measurement model, LISREL 8.71 software is used to estimate the model. Using the asintotic variance-covariance matrix, the multi-group model is estimated. The goodness-of-fit indicators of the multi-group structural equation model are as follows: Chi-squared (Satorra-Bentler) = 1510.63 (p=0.00), RMSEA=0.052, NFI=0.92, NNFI=0.98, CFI=0.98, IFI=0.98, RFI=0.92. All the indicators are within the limits recommended by the literature, excepting Chi-squared which is affected by population size.

Regarding structural model, the standardized coefficients are shown with their corresponding t value, distinguishing between groups of Spanish and British consumers, in table 6.

**Table 6. Standardized coefficients (t values)**

| | SPAIN | UNITED KINGDOM |
|---|---|---|
| | Standardized coefficient (t-value) | Standardized coefficient (t-value) |
| **Quality dimensions and online satisfaction** | | |
| Ease of use → Online Satisfaction | 0.26 (1.86) | **0.16 (1.97)** |
| Availability → Online Satisfaction | 0.11 (0.81) | 0.11 (1.56) |
| Efficacy→ Online Satisfaction | 0.07 (0.42) | **0.30 (2.61)** |
| H1. Privacy→ Online Satisfaction | **0.18 (1.97)** | 0.11 (1.67) |
| Relevant information→ Online Satisfaction | **0.42 (3.08)** | **0.29 (3.42)** |
| **Satisfaction online and hotel quality and perceived value** | | |
| Online Satisfaction →Hotel quality | **0.35 (3.60)** | **0.72 (7.92)** |
| Online Satisfaction →Perceived value | **0.19 (2.16)** | **0.36 (3.07)** |
| **Monetary price and perceived risk and hotel quality** | | |
| H2. Monetary price→Perceived risk | **0.24 (2.54)** | -0.12 (-1.12) |
| Monetary price →Hotel quality | 0.07 (0.58) | -0.09 (-1.32) |
| **Perceived risk and hotel quality and perceived value** | | |
| H3. Perceived risk→Hotel quality | **-0.43 (-3.83)** | 0.03 (0.43) |
| H4. Perceived risk → Perceived value | 0.07 (0.68) | -0.03 (-0.37) |
| **Hotel quality and perceived value** | | |
| Hotel quality→Perceived value | **0.45 (2.81)** | **0.35 (3.32)** |
| **Perceived value and Loyalty** | | |
| Perceived value→Loyalty | **0.45 (3.76)** | **0.49 (5.33)** |

It can be observed that, in general, the relationships confirm the model in Figure 1, except for those aspects that are addressed in the Discussion of findings.

## 5. DISCUSSION

Empirical verification of Hypothesis 1 reveals that online privacy influences satisfaction with a website amongst Spanish consumers but does not have this same influence amongst British consumers, meaning that this hypothesis finds empirical support. This finding confirms the contributions made by the literature which affirm that online purchasing implies a greater degree of uncertainty than purchasing undertaken via traditional physical establishments, due to concerns over privacy (Suki and Suki, 2007). Furthermore, the finding is in line with previous studies that establish that individuals from cultures with a high level of uncertainty avoidance tend to lack trust in the online service provider for fear of loss of privacy (Mooiji,

1998), however privacy does not influence online satisfaction amongst consumers from cultures with low uncertainty avoidance (Lee et al., 2009).

In relation to Hypothesis 2, the relationship between monetary price and perceived risk is significant only amongst consumers from a culture characterised by high uncertainty avoidance (that is, Spanish). Hence, it is confirmed that uncertainty avoidance influences consumers´ assessment of risk (Keh and Sun, 2008). Furthermore, cultures with low uncertainty avoidance demonstrate greater tolerance of risk, while people from these cultures tend to be more innovative and enterprising, and are more open to trying new things. By contrast, countries with a high level of uncertainty avoidance value security, rules and formality; their citizens are more resistant to change and tend to avoid or minimise risk, hence they are less inclined to innovate and they may perceive higher risk when faced with higher prices.

Hypothesis 3 proposed a significant negative relationship between perceived risk and perceived quality amongst consumers with a high level of uncertainty avoidance. The findings provide empirical support to H3. Given that individuals from cultures with a high level of uncertainty avoidance are understood to positively value security of process and promises made by service providers, here a greater level of risk would imply a perception of inferior quality. Meanwhile individuals from cultures with a low level of uncertainty avoidance do not assess risk as a determinant of perceived quality.

Empirical verification of Hypothesis 4 reveals that perceived risk does not influence directly in the perceived value of the online purchase of a service, for either of the two groups of consumers. Hence, there is no empirical evidence for the moderating effect proposed in Hypothesis 4. With regard to the proposed model, the relationship established between perceived risk and overall perceived value is indirectly determined by the perceived quality of the hotel, and it is not possible to affirm the existence of a direct relationship between perceived risk and overall perceived value. This might be due to the fact that perceived risk is assessed prior to the assessment of the overall perceived value.

On the other hand, the relationships between ease of use and online satisfaction, and efficacy and online satisfaction, are worthy of special mention. Looking at the findings, it can be observed that ease of use and efficacy are significant for British consumers, while they are not significant for Spanish consumers. That said, although there are no previous studies finding

that these differences are due to the cultural dimension of uncertainty avoidance, there are studies that demonstrate that these relationships can be moderated by other cultural dimensions such as masculinity-femininity and individualism-collectivism (Bhawuk and Brislín, 1992; Straub et al., 1997; Kvist and Klefsjö, 2006; Lee et al., 2009) and the analyzed cultures show differences also.


## 6. CONCLUSIONS AND IMPLICATIONS

The contributions include, firstly, the proposal and validation of a model of overall perceived value for the purchase decision-making process of a service, which includes both the purchasing phase (online) and also enjoyment of the service (hotel).

Secondly, it is proven that Hofstede´s cultural dimension of uncertainty avoidance is applicable to the context of this research, at the time at which it is undertaken, demonstrating empirically that this cultural dimension can be applied to the service field.

Thirdly, the moderating effect of uncertainty avoidance on the relationship between the antecedents and consequences of overall perceived value in the purchase and enjoyment of a service is analysed. This reveals that this dimension does have a moderating effect on the overall perceived value of the purchase decision-making process for a service. More specifically, it is worth highlighting that uncertainty avoidance influences the relationships formed by dimensions particularly relevant in the Internet realm – namely the relationship between privacy and satisfaction, between monetary price and perceived risk, and between perceived risk and perceived hotel quality. Hence these relationships will be significant amongst consumers from cultures with high uncertainty avoidance, and will not be significant amongst consumers from cultures with a low level of uncertainty avoidance. Therefore when the service provider is dealing with individuals from cultures with a high level of uncertainty avoidance, he should take care not to request more information than is strictly necessary as these individuals require a high level of trust in order to carry out their transactions online, and to focus his efforts instead on minimising any uncertainty surrounding the product. Conversely, when dealing with people from cultures with low uncertainty avoidance, it is not so important to attempt to reduced the risk associated with the purchase decision-making process as these individuals do not perceive it as risk in the first place. It is worth noting also

the findings relating to the relationship between perceived risk and overall perceived value. The results reveal that culture does not have a moderating effect on this relationship.

From a management perspective, when service providers understand the factors that influence how international consumers perceive overall value in the purchase decision-making process, and why they have this influence, this can help them understand how to tailor their service to consumers of different nationalities. This same knowledge is also invaluable in developing the website to improve commercial services for customers from different cultures, enabling the business to carry out online trade that improves their competitive position. The key implications point to the need to adapt the website, and the features of the service (hotel) itself, in line with the specific requirements of each target culture, with a view to ensuring that customers perceive overall positive value and to this being the determining factor in creating loyalty to that website.

## 7. LIMITATIONS AND FUTURE LINES OF RESEARCH

Upon interpreting the findings of this research, certain limitations come to light. First, this study follows the approach taken by Hofstede (1980; 2001), assuming that, within a national culture, cultural values are consistent for the entire population. That said, the great majority of studies work to this assumption as it offers practical applicability of results and facilitates the identification of nationality with cultural dimensions.

Secondly, the consumers participating in the survey use different web portals and book different hotels, meaning that one single website and one specific category of hotel were not analysed. A future line of research would be to undertake an experiment in which both the website and the category of hotel are controlled. Finally, the international nature of the sample is extremely costly and this has limited the sample size.

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