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Risk, Trust, and Consumer Online Purchasing Behaviour: A Latin American Perspective

Abstract

Purpose: The purpose of this study is to investigate Latin American online purchase behaviour with a specific focus on the influence of perceived risk and trust. While studies of this nature have been conducted quite extensively in developed countries, their application in developing countries, such as Latin America is limited. Our study addresses this gap in the literature with an empirical study conducted in Chile.

Design/methodology/approach: The authors develop and test a proposed model of the influence of consumer's perceptions of risk and trust on their attitudes and intentions to purchase on the Internet. An online survey method is used. The sample consists of 176 Chilean consumers who have made at least one purchase online. The data is analysed using structural equation modelling technique (SEM).

Findings: The analysis revealed that of the perceived risk and trust factors examined, trust in third party assurances and a cultural environment of trust had the strongest positive influence on intentions to continuing purchasing online. Perceived risk had an inverse relationship with attitude and consumers' attitude has a positive influence on intentions to purchase online. Trust in online vendors and a propensity to trust were both insignificant.

Practical implications: Practically, these results identify which risk and trust beliefs towards purchasing online have the most effect thereby providing insights into how companies should seek to mitigate perceptions of risk to encourage new and return purchasers. Additionally, this research shows that consumers in a Latin American country, recognised as a collectivist, high risk avoidance culture, are willing to make purchases online despite the risks involved.

Originality/value: The study and its results is one of few available that consider a Latin American context. The value of the findings provides insights into the specific risk and trust factors that influence Chilean consumers when considering purchasing online. The tested model adds value not only to the literature on Latin American consumer behaviour but also provides guidance for companies offering online retailing facilities in these less developed countries .

Keywords: Online purchasing, perceived risk, trust, Chile, Latin America

Paper type Research paper - special edition on Latin America

1. Introduction

Consumers in developed countries, such as the United States, and those in Europe, have embraced the Internet for commercial purposes and the figures from online retail activity continue to rise annually in both the United States (2010) and in Western Europe (von Abrams, 2010). However in less developed countries, including those in Latin America, the take up of e-commerce has been much slower (Nasco et al., 2008). Using Chile as an example, while business to business transactions have increased, there is only limited growth in business-to-consumer (B2C) transactions (Rohm et al., 2004). The limited growth in this region is surprising as between 2000 and 2009 Latin American Internet users increased by 853%, compared to regions such as the United States and Europe, with growth rates of 145.8% and 297.8% respectively (New Media TrendWatch 2009). Such observations suggest that this area of online commerce is still very much in an emergent state and additional research into consumer's online purchase behaviour in Latin America is warranted (Nasco et al., 2008).

We acknowledge the extensive body of research emanating from studies in developed countries related to factors that influence or inhibit consumers' online purchase behaviour (e.g., Van den Poel and Leunis, 1999; Bhatnagar et al., 2000; Jarvenpaa et al., 2000; Biswas and Biswas, 2004; Forsythe et al., 2006; Andrews et al., 2007; McCole et al., 2010; Qureshi et al., 2009; Urban et al., 2009). Often identified in those studies, and of particular interest to our study, is the influence of consumers' perceptions of risk and trust when considering purchasing online. Research continues to identify that risk and trust factors are important and need to be addressed (e.g., Cheung and Lee, 2001; McCole et al., 2010; Wu et al., 2010). Moreover, these issues need to be addressed as a core component of effective marketing strategy, rather than at a tactical level (Urban et al., 2009) in order to improve levels of online

transactions. This is important if the customers are going to become advocates for firms through satisfaction and continued use (Urban et al., 2009).

Additionally, a consumer-centric focus is important when considering that differing cultural dimensions may in turn influence consumers' perceptions risk and trust that impact on purchasing on the Internet (Greenberg et al., 2008). Evidence suggests that cultural differences exist about consumer acceptance of new communication technologies (Maldifassi and Canessa, 2010) and that they should not be overlooked when conducting research in such countries (Hofstede, 2001).

We report on a study that examines consumers' perceptions of risk and trust with online purchasing and how these factors influence the likelihood of continued online purchase behaviour in a Latin American country, in this case Chile. Latin American countries, have received limited academic attention in terms technology readiness (Donoso and Crittenden, 2008) and e-commerce development (Nasco et al., 2008; Grandón et al., 2010). Taking Chile as an example, this is somewhat surprising as it is ranked 27th on the Global Competitive Index (cited in (Donoso and Crittenden, 2008) and has the fourth largest Internet population in Latin America (TrendWatch, 2009).

Our study is grounded in attitude theory adapted from Fishbein and Azjen(1975). Applications of attitude theory to consumers' intentions to adopt Internet purchasing forms a significant body of consumer behaviour research (Taylor and Strutton, 2010), particularly in the United States. However its application to consumers' online purchasing behaviour in Latin American countries has received far less attention (Nasco et al., 2008; Grandón et al., 2010). By inference it could be argued that e-commerce adoption research applied in developed countries may not necessarily be as relevant for Latin American countries due to differing cultural dimensions (Gong, 2009; Grandón et al., 2010; Nasco et al., 2008).

There are two main objectives in the study reported here: 1) to examine Chilean consumers' perceptions of risk and trust towards purchasing online; 2) to examine whether constructs used in developed countries can inform online purchase behaviour in developing countries, such as those in Latin America. In the following sections we examine the literature regarding perceived risk and trust in the context of online purchasing as well as discussing possible cultural dimensions that could be at play in the study. We are not, however undertaking a cross cultural study. The sample consists of Chilean consumers who have made at least one purchase online. The methodology used in the study is reported together with the results. Theoretical and practical implications are discussed and future research identified.

2. Theoretical framework and country of interest

The study is positioned within broad framework of the Theory of Reasoned Action (TRA: Fishbein and Ajzen, 1975). TRA is a well recognized attitude theory in consumer behaviour research (Taylor and Strutton, 2010) that has been applied in many countries. However, in a Chilean context, while this model has been applied e-commerce adoption by small to medium size enterprises (Grandón et al., 2010; Nasco et al., 2008), we have not found any consumer-centric applications of TRA relating to online purchase behaviour at this present time. Additionally, online purchasing research applied to consumers in developed countries may vary for consumers in Latin American countries due to differing cultural dimensions (Gong, 2009; Grandón et al., 2010; Nasco et al., 2008). We seek to address such limitations using Chile as a representative Latin American country.

Overall, Latin American countries are considered to be high context /high collectivist cultures with high uncertainty avoidance (Hofstede, 2001). Chile was rated by Hofstede (2001) as having a low rating of 23 on individualism and a high rating of 86 on uncertainty avoidance. Put in context, this means that Chile can be viewed as a high collectivist / high uncertainty avoidance culture (Cyr, 2008). Therefore, cultural influences in terms of

perceived risk and trust in the online environment should not be overlooked when technological readiness is of interest to academic scholarship in Latin America (Donoso and Crittenden (2008). The next section discusses the extant literature in terms of the risk and trust constructs of interest to our research.

3. Conceptualisation of constructs and hypothesis development

From the extant research available it is apparent that consumers continue to perceive that using the Internet for purchasing is risky (e.g., Bourlakis et al., 2008; Drennan et al., 2006; Kuhlmeier and Knight, 2005; McCole et al., 2010; Ha and Coghill, 2008). Moreover these perceptions can have a significant and inverse relationship with attitudes and intentions regardless of whether a person purchases online or not (Andrews and Boyle, 2008; Forsythe et al., 2006).

In addition to perceived risk, research also identifies that trust is an important factor in reducing perceptions of risk (Cheung and Lee, 2001; Jarvenpaa and Tractinsky, 1999; Jarvenpaa et al., 2000; McCole et al., 2010; McKnight et al., 2002; Tan and Sutherland, 2004). Trust makes consumers comfortable sharing personal information, making purchases, and acting on Web vendor advice, all of which are behaviours essential to widespread adoption of e-commerce. Therefore, an understanding of the impact of trust is critical to both researchers and practitioners (McKnight et al., 2002). Moreover, trust is regarded as a multi-dimensional construct that takes into account previously identified notions of perceived risk (e.g., Cheung and Lee, 2001; McCole et al., 2010; McKnight et al., 2002; Tan and Sutherland, 2004). Drawing on Tan and Sutherland's (2004) conceptual approach and empirical studies (e.g., Cheung and Lee, 2001; McCole et al., 2010), we measure trust in the online environment (perceived online risk), and trust in the online vendor. Also included is trust in third party assurances, consumer propensity to trust, and the cultural environment of trust as antecedents of attitude and intentions to purchase online. These concepts are discussed in

more detail and the resulting hypotheses are drawn together in the conceptual model of the influence of perceived risk and trust on attitude and intentions depicted in Figure 1.

Insert Figure 1 here

3.1 Consumer attitudes and intentions towards purchasing online

Drawing on TRA, consumer attitude relates to the extent to which an individual makes a positive or negative evaluation about performing behaviour (Fishbein and Ajzen, 1975). For this study, consumer attitude towards online purchasing is defined as the extent to which a consumer makes a positive or negative evaluation about purchasing online (Andrews et al., 2007). Intentions are regarded as a suitable proxy of actual behaviour when it is not possible to measure such outcomes. However, participants in our study have all purchased online at least once and so their measured intention relates to continuing to purchase online. Focusing on consumers' continuation of a behaviour is important in the post adoption phase (Taylor and Strutton, 2010; Urban et al., 2009; Wu et al., 2010). Previous studies suggest that attitude is a predictor of intentions to purchase online (e.g. Doolin et al., 2005; Hernández et al., 2010; Ha and Stoel, 2009) or for e-commerce adoption in SMEs (Grandón et al., 2010; Nasco et al., 2008). Moreover, for individuals with direct experience of a phenomenon, such as having purchased online (e.g. Hernández et al., 2010), this attitude will be more easily accessible in their memory (Fazio and Zanna, 1981). Thus, we expect a positive relationship between consumer attitude and intentions to purchase online. Furthermore, we assume that this relationship holds in a Latin American context, thus we hypothesize the following:

Hypothesis 1: Consumer attitude towards purchasing online has a positive influence on consumer intention to purchase online.

3.2 Perceived Online Risk

Perceived online risk is identified by Cheung and Lee (2001) and McCole et al. (2010), and is similar to Tan and Sutherland's (2004) conceptualisation of institutional risk. It relates to the online environment where a consumer needs to trust the technology involved to undertake the various tasks involved in searching and purchasing (McCole et al., 2010; Tan and Sutherland, 2004). Perceived risk has consistently been identified as having a negative influence towards online behaviour, including purchasing (Kim et al., 2008). Forsythe et al. (2006) examined three factors: *financial risk*, *product risk* and *time/convenience risk*. Their findings suggest that all three factors negatively impacted on perceptions of the Internet for purchasing for those respondents who were visitors rather than purchasers. Additionally, those respondents who purchased on the Internet less frequently were more influenced by perceived risk in the Internet than those who purchased more frequently (Forsythe et al. (2006).

Research also has focused on a generalised perception of risk involved with the online environment, for example that it is uncertain, risky, and dangerous and has negative outcomes (Cheung and Lee, 2001; Chen and Barnes, 2007). Such perceptions are often associated with using the medium, that is, with the security and reliability of transactions over the Web, termed transaction risk (Biswas and Biswas, 2004). However, it is not necessarily the amount of money involved with the purchase, or the actual product itself, but being put at risk of losing money via credit card fraud (Andrews and Boyle, 2008; Bhatnagar et al., 2000; Biswas and Biswas, 2004). Substantive findings suggest that perceptions of risk about using the Web for purchasing can outweigh a consumer's perceptions about the benefits as well as acting as a primary barrier to doing so (Kuhlmeier and Knight, 2005; Yang and Jun, 2002; Bhatnagar and Ghose, 2004; Andrews and Boyle, 2008). Moreover, even when individuals do purchase online, they are still wary of the risks involved with the Internet environment (Andrews and

Boyle, 2008; Forsythe et al., 2006). We also assume that for a high risk avoidance culture such as Chile that this relationship would hold in a Latin American context, thus we propose the following hypothesis:

***Hypothesis 2:** Perceived online risk has a negative influence on consumer attitude towards online purchasing.*

3.3 Trustworthiness of the Online Vendor

In order to overcome some of the risks noted above, the notion of trust has been incorporated into studies of online purchasing (See Bourlakis et al., 2008 ; Urban et al., 2009). Trustworthiness of the online vendor has been identified in a number of studies (Jarvenpaa and Tractinsky, 1999; Jarvenpaa et al., 2000; McCole et al., 2010; Tan and Sutherland, 2004). This dimension examines the extent to which consumers place trust in the vendors from whom they purchase (Jarvenpaa and Tractinsky, 1999; Jarvenpaa et al., 2000). McCole et al. (2010) examined vendor trustworthiness, and found that this factor positively influences attitude towards online purchasing. Jarvenpaa, et al. (2000) found that trust in online vendors positively influenced consumers' attitudes towards the online vendor, which in turn influenced their willingness to buy.

Other evidence suggests that familiarity with an online store also has positive influence (e.g., Stranahan and Kosiel, 2007; Garbarino and Strahilevitz, 2004). Moreover, certain demographics, for example those under 60 and more highly educated people (Stranahan and Kosiel, 2007) and men (Garbarino and Strahilevitz, 2004) are more likely to purchase in unfamiliar online stores. By inference it can be assumed that, for these demographics, there was a level of initial perceived trust in the online vendors that enabled them to make purchases, as suggested by Wu et al. (2010). On average, evidence appears to suggest that consumer trust in the online vendor has a positive relationship with attitudes towards purchasing online, thus following hypothesis is stated:

Hypothesis 3: Consumer perceived trustworthiness of the online vendor has a positive influence on consumer attitudes towards online purchasing.

3.4 Trust in third party assurances

Studies further suggest that in order to reduce perceptions of risk in transacting in the Internet environment, and to increase perceptions of trust in the vendor, Internet firms should display third party assurances on their websites. Cheung and Lee (2001) term this concept as third party recognition suggesting that such assurance seals are recognised as being external to the online vendor. Vendors can provide certification indicators, such as Web assurance seals, Trustmarks or credit card symbols on their websites that increase an individual's propensity to trust act (Wu et al., 2010) and act as risk relievers (McCole et al., 2010). These can be statements about the encryption technology used or visual indications of secure payment systems through the use of specific logos or icons, e.g. Verisign (Andrews and Boyle, 2008). They represent third party seals of approval that are recognised and trusted by the public (Park et al., 2010). These third party assurances are used to help to relieve negative perceptions about the risks of conducting transactions online, thereby creating consumer trust in Internet stores (Biswas and Biswas, 2004; Drennan et al., 2006; Wang et al., 2004).

However, findings regarding consumer trust in third party assurances are mixed. For example, general awareness of such seals is low (Head and Hassanein, 2002) and that consumer do not look for such assurances but simply assume they are in place (Andrews and Boyle, 2008). McKnight et al. (2004) also found that seals do not influence consumer trust. In contrast, Park et al. (2010) found that third party assurance seals affect overall satisfaction suggesting that consumers have higher expectations of sites with seals. McCole et al. (2010) found that trust in third party assurance positively influenced attitude towards purchasing. As this discussion shows, there are mixed results regarding the influence of trust in third parties and requires ongoing examination. We take the view that since Chile is a high risk avoidance

culture, trust in third party assurances should influence attitude thus, the following hypothesis is stated:

***Hypothesis 4:** Trust in third party assurances has a positive influence on consumer attitude towards purchasing online.*

3.5 Consumer Propensity to Trust

A propensity to trust is a disposition to trust others in general (McKnight et al., 2002; Wu et al., 2010). It is theorised that a disposition to trust influences both online vendor trust and an individual's intentions to engage in trust-related behaviours on the Internet (McKnight et al., 2002); by inference, intentions to engage in online purchase behaviour. The concept includes the notion of faith in humanity and a general trust in others rather than focusing on specific Internet vendor issues (McKnight et al., 2002; Wu et al., 2010). Cheung and Lee (2001) discuss the propensity to trust, suggesting that it is an individual characteristic that is based on both experience and cultural environment. They argue that individuals who find it easy to trust are more likely to trust purchasing in the online environment compared to those who do not find it easy to trust.

Wu et al., (2010) suggest that such trust does not have to be based on experience or knowledge of a specific trusted party. Instead, a propensity to trust is based more on faith in humanity and general trust partly based on personality but also arising from an individual's socialisation towards trusting others. This notion is also supported by Gong (2009) who suggests that high trust cultures have a greater propensity to trust those in their own culture. Tan and Sutherland (2004) discuss dispositional trust in much the same way as Cheung and Lee (2001) and McKnight et al. (2002), regarding it as a personality trait.

McKnight et al. (2002) found that propensity to trust was positively related to personal innovativeness in their examination of the structure of trust. Findings in Wu et al. (2010) show that a disposition to trust was not significant for any of the hypothesised relationships in

their extensive study. Cheung and Lee (2001) offer propositions regarding this construct's relationships with other trust variables rather than attitude or intentions towards online shopping behaviour. However, it can be argued that because a propensity to trust arises from an individual's socialization, it is possible that it may act as a cultural normative influence that can be predicted to influence intentions in a TRA framework. Thus the following hypothesis is proposed:

Hypothesis 5: Consumer propensity to trust has a positive influence on consumer intention to purchase online.

3.6 Cultural Environment of trust with online purchasing

Tan and Sutherland (2004) state that cultural values have a role in people's disposition to trust. In extending this notion, Cheung and Lee (2001) included the cultural environment of trust in their scale development study, arguing that it is a dimension of an individual's propensity to trust in something or someone. Certainly the cross cultural literature supports the notion that a cultural environment of trust is a factor that needs to be considered (Cyr, 2008; Greenberg et al., 2008; Hofstede, 2001; Wu et al., 2010).

As a result many studies include country as the surrogate measure of cultural environment. The scale development work by Cheung and Lee (2001) identified that there is a dimension of a propensity or disposition to trust that can capture the cultural environment of trust. However no studies have been found that specifically examine this aspect of trust as a separate and measurable factor. We therefore include this dimension of propensity to trust as a separate construct and, as it is based on cultural dimensions and can be considered as a normative influence, we propose the following hypothesis:

Hypothesis 6: Cultural environment of trust has a positive influence on consumer intention to purchase online.

4. Research Design and Methodology

One thousand potential participants were extracted from a University's alumni database located in Santiago. The survey instrument was initially developed in English, which was then translated into Spanish by the native speaking research team member. This survey was then back translated by a colleague in Chile as suggested by (Brislin, 1970). A convenience sample of five Chilean consumers in Australia pre-tested the survey, resulting in refining wording for some of the items. To reduce the common method bias, semantic differential scales and 7-point Likert-type scales were used (Podsakoff et al., 2003). The survey was placed online and accessed through a URL hosted by the faculty of an Australian university. Potential participants were sent an email introducing the research team, the objectives of the study and an embedded link to the survey. A total of 182 participants completed the survey, representing a 17.6% response. Following the elimination of six cases with extensive missing data, 176 cases were used to test the proposed structural model. The sample comprised 55.7% females and 44.3% males with 100% having purchased at least one product or service on the Internet. The demographic characteristics of the participants are shown in Table 1.

Insert Table 1 here

The data shows that for the most part, these respondents have made online purchases from well known domestic retailer websites, such as falabella.cl (largest domestic department store), lan.com (largest domestic airline), jumbo.cl (largest domestic supermarket chain), ripley.cl (domestic department store), telemercadoeuropa.cl (online grocery retailer), and ticketmaster.cl (shows and concerts). Respondents have also purchased from foreign retail websites predominantly at amazon.com and e-bay.com. Furthermore, the most frequently purchased online products or services by respondents are computing and electronics, books and magazine subscriptions, air flight tickets, household bills, groceries, concert tickets and gifts.

4.1 Measurement

The survey questionnaire uses extant measures from the literature. *Consumer attitude towards online purchase* was measured with five items using a semantic differential scale adapted from Oliver and Bearden (1985). *Perceived online risk* was measured by 4 items from Andrews et al. (2007). The constructs *trustworthiness of the online vendor* and *trust in third party assurances* were measured by a three-item scale adapted from Cheung and Lee (2001). *Consumer propensity to trust* and *cultural environment of trust* were each measured with three items with the wording adapted from Cheung and Lee (2001). All of the foregoing items used 7 point Likert type scales with anchor points ranging from 1=totally disagree to 7=totally agree. The dependent variable, *consumer intentions to purchase online* was measured with 3 items adopted from Andrews et al. (2007). The sources of the construct measures and their standardized estimates are illustrated in Table 2. The correlations, means and standard deviations for the construct measures are shown in Table 3.

Insert Table 2 here

Insert Table 3 here

In the measurement purification process, item-to-total correlations, standardized Cronbach Alpha, Exploratory Factor Analysis (EFA) (all in SPSS), single measurement models, and Confirmatory Factor Analysis (CFA) (with AMOS 16) were conducted for all constructs. Considering common procedures in structural equations modelling (SEM), all measures in the CFA were used to test the proposed SEM model (Anderson and Gerbing, 1991).

5. Analysis and Results

For this study, structural equation modelling (SEM) in AMOS 17 was used to test the proposed model and the hypothesized paths. The SEM analysis shows a relatively good fit for the model ($\chi^2/df=1.702$, IFI=.915, TLI=.900, CFI=.913, and RMSEA=.063). Testing the reliability and validity of the construct measures was conducted using alpha reliability,

correlations, and CFA analyses and tests. As evidence of convergent validity, CFA results in Table 3 signify that most of the items are significantly associated with their hypothesized factors. To check and reduce the common method bias variance, the questionnaire initially mixed positive and negatively worded items. Further, to satisfy the statistical contention of common method bias variance, questionnaire items were re-coded to make all the constructs symmetric. Using Podsakoff and Organ's (1986) procedure, factor analysis was conducted for all constructs and illustrated that there was no single factor or any general factor that accounted for most of the variance in the independent and dependent variables. Thus, no common method bias variance issues were identified.

The results of the hypotheses testing are shown in Table 4. Four hypotheses are found to be significant.

Insert Table 4 here

The results of Hypothesis 1 indicates that consumer attitude towards purchasing online is significant and positively related to consumer intentions to purchase online ($\beta=.541, p=.014$), therefore **Hypothesis 1 is supported**. Results of Hypothesis 2 indicate that perceived online risk is significant ($\beta= -.209, p=.021$) and negatively related to consumer attitude towards purchasing online, therefore, **Hypothesis 2 is supported**. Hypothesis 3 proposes that trustworthiness of the online vendor is positively related to consumer attitude towards purchasing online. However the result of this hypothesis is not significant ($\beta=-.198 p=.158$), therefore, **Hypothesis 3 is not supported**. The results of Hypothesis 4 show that trust in third party assurances is positively but marginally related to consumer attitude towards purchasing online ($\beta= .259, p=.054$), therefore, **Hypothesis 4 is marginally supported**. Hypothesis 5 proposes that consumer propensity to trust is positively related to consumer intentions to purchase online. However the data indicates a significant relationship but in the opposite direction than hypothesized ($\beta=-.485, p=.018$), therefore, **Hypothesis 5 is not supported**.

The results of Hypothesis 6 indicate that the cultural environment of trust is positively and significantly related to intentions to purchase online ($\beta=1.824, p=.000$). Therefore,

Hypothesis 6 is supported.

Although the estimated model had a relatively good fit, there was a high correlation between two variables that were not tested in the model. The correlation matrix shows that trust in third party assurances and consumer intentions to purchase online have the highest correlation in the matrix. In order to further examine this link, a competing model was estimated to determine whether trust in third party assurances had a direct influence on consumer intentions to purchase online,. This competing model is depicted in Figure 2.

Insert Figure 2 here

The competing model shows a slightly better fit of the model ($\chi^2/df=1.689$, IFI=.917, TLI=.900, CFI=.915, and RMSEA=.063). In this model, four relationship paths are significant. First, similarly to the previous model, consumer attitude towards purchasing online (Hypothesis 1) is significant and positively related to intentions to purchase on the Internet ($\beta=.381, p=.046$). Perceived online risk (hypothesis 2) also remains significant and negatively related to consumer attitude towards purchasing online ($\beta=-.212, p=.022$). As with the first model, trustworthiness of the online vendor (hypothesis 3) is not significantly related to consumer intentions to purchase on the Internet ($\beta=-.156, p=.244$). Regarding hypothesis 4, when a hypothesized path is established between trust in third party assurances and consumer intention to purchase online, this relationship is positive and significant ($\beta=.552, p=.000$). However, in the original hypothesised path in model 1, which was marginally significant, the relationship between trust in third party assurances and consumer attitudes towards purchasing online becomes non significant ($\beta=.231, p=.092$). Thus trust in third party assurances is a factor that influences intentions, rather than attitudes. In the competing model, the relationship between propensity to trust and intention to purchase online (hypothesis 5) is

not significant ($\beta=-.017, p=.858$). Finally, cultural environment of trust (hypothesis 6) continues to be positive and significantly related to consumer intention to purchase online as in the previous model ($\beta=.600, p=.004$).

5. Discussion and Conclusions

5.1 Discussion of the findings

Most prior research on online purchasing behaviour has focused predominantly on developed markets such as the U.S., Europe, parts of Asia and Australia. However, less consideration has been given to Internet purchase behaviour in regions such as Latin America. Such countries have lower technology readiness at both the firm and consumer level (Donoso and Crittenden, 2008) and e-commerce adoption by companies is slower (Grandón et al., 2010; Nasco et al., 2008). The objective of our study was to investigate the role of trust and risk on Chilean consumers' attitudes and intentions of purchasing online and to determine if the constructs used in western research are relevant for Latin American studies of this nature. Drawing upon extant literature and developed within a theoretical framework of TRA, a model was tested. The findings provide interesting insights into Internet purchase behaviour for Chilean consumers.

Consistent with previous studies, Chilean consumers' attitude towards purchasing online was positively related to their intentions to continue to purchase online. This finding is supported in other studies where attitude has an effect on intentions to continue purchasing on the Internet when participants had already previous experience of doing so (Hernández et al., 2010). Thus, it can be argued that attitude towards a behaviour becomes less important with experience since it is more easily accessed from memory (Fazio and Zanna, 1981; Lee et al., 2002).

Although all respondents in our study had purchased online at least once, they still perceive that the Internet environment is risky, which is consistent with prior research (e.g.,

Bourlakis et al., 2008; Drennan et al., 2006; Kuhlmeier and Knight, 2005; McCole et al., 2010; Ha and Coghill, 2008). It is noted, however, that this belief is only influential on their attitudes and is not a barrier to their intention to continue purchasing online, as is supported in other studies of online purchasers (e.g. (Andrews and Boyle, 2008; Forsythe et al., 2006). Previous studies suggest that the more experience with online purchasing people have, the less risk they perceive in the Internet in general (Forsythe et al., 2006; Wang et al., 2010). This could be the case in our study, especially since the beta weight for this variable is particularly large. All participants in our study are university educated, thus they would have more Internet experience through studying (Maldifassi and Canessa, 2010).

Additionally, they are online purchasers, which suggests they have developed a level of initial trust with any website where they have purchased, as suggested in Wu et al (2010). Finally, it can be inferred that in our study the perceived benefits captured in the measure of attitude outweighs individuals' perceptions of risk, which is also consistent with Gong (2009). She suggests that for Latin American people who have greater experience with the Internet and Internet purchasing, perceived risk would have a diminishing effect on their attitude towards online purchasing, and therefore on their intentions to continue this behaviour.

It is also noted that trust in the online vendor was not significant in either of the models, although one would have expected it to be as suggested in both western research findings (e.g. Van den Poel and Leunis, 1999; Wu et al., 2010) and cross cultural findings (e.g. Jarvenpaa et al., 1999 and 2000). A partial explanation for this result could be that there are not very many online companies based in Chile, or that not many Chilean companies offer their customers online purchasing facilities at this present time (Grandón et al., 2010; Nasco et al., 2008). Wu et al., 2010 suggest that individuals use other factors to develop initial trust in a website to make their transaction, such as trust in third party assurance seals and website interactivity

features. While we did not test for website design features, many sites have features to enhance interactivity with visitors and return customers.

Additionally, it is possible that our participants are familiar with the brand names of the websites as they may have visited them on previous occasions before deciding to make a purchase. For example, our sample tended to purchase online with well known domestic retail stores such as Falabella, Ripley, Jumbo, as well as the regional airline Lan, all which have been operating in the marketplace for over 50 years. This means that potentially they were well known brand names. If they are well known companies, a positive relationship might exist between store familiarity and other aspects of trust, such as reputation (Stranahan and Kosiel, 2007) as well as trust in third party assurances (Park et al., 2010). Wu et al, 2010 found that such assurances were associated with initial trust when purchasing on unfamiliar websites in their experimental design. Moreover, the cross-cultural research (e.g. Cyr et al., 2005; Gong, 2009) suggests that in collectivist cultures there is a high propensity to trust insiders and higher levels of trust among their own culture.

Such assumptions are also supported by our findings for trust in third party assurances which in the first model had a marginal positive influence on attitudes. In the second model testing this variable it had a strong positive influence on intentions to purchase online. This finding provides insight into why trust in the online vendor might not be significant, in that Chilean consumers appear to actively trust these assurances, which are often external reassurances. Such inferences are supported as other studies suggest that third party assurances help to create consumer trust in Internet stores (e.g. Biswas and Biswas, 2004; Drennan et al., 2006; Wang et al., 2004), and are important for initial trust in a website (Wu et al., 2010). While findings in cross cultural research is somewhat mixed as to the value of third party assurance seals to increase perceptions of trust, our study adds support to those that

suggest having these seals on a website does have this benefit (e.g. Cheskin, 2000, cited in Cyr 2008; McCole et al. 2010; Park et al., 2010; Wu et al., 2010).

Consumer propensity to trust does not have a significant effect on attitude or intention to continue purchasing online, however, cultural environment of trust is significant and positively influences intentions to continue to purchase online. It is acknowledged, however, that the findings in cross-cultural research regarding propensity to trust is equivocal at best. Wu et al. (2010) found no significance for this variable and initial trust in a website and they suggest that other factors such as third party assurance seals and website features may have displaced a propensity to trust. A possible explanation for these findings in our study could be that since our sample is more highly educated and experienced with the Internet they are also more sophisticated in terms of their propensity to trust as a personal characteristic. Moreover, it is noted that people in high trust cultures, such as Chile, tend to trust others in their culture, reflecting a cultural normative influence (e.g. Cheung and Lee, 2001; Gong, 2009). TRA specifies that normative influences impact on intentions to perform behaviour, more so than impacting attitudes. This finding bodes well for Chilean small to medium sized enterprises when considering adding online retailing channels to the existing business operations.

6.2 Theoretical Contribution

The main theoretical contribution of this study is the application of TRA in a developing country located in Latin America, helping to support the generalizability of theoretical models outside developed markets. Moreover, the findings of this study contribute to the ongoing generalizability of consumer-centric models of online purchasing behaviour. Specifically our study helps to extend research on perceived risk and trust online by extending the context to a Latin American country with high levels of collectivism and uncertainty avoidance. Our findings test variables with good psychometrical properties developed in western studies in a Latin American context to examine their relevance to explain how these important factors

influence intentions to continue to purchase online. It will be noted in the findings that the variables that have the strongest explanatory power of Chilean consumers intentions, in addition to attitude ($\beta=.381$) are cultural environment of trust ($\beta =.600$) and third party assurances ($\beta=.552$). Perceived risk has a negative influence on attitudes only, thus it appears to be cancelled out by the stronger trust variables. Somewhat surprisingly, our study showed that trust in online vendors and a propensity to trust were not significant in our model.

Whether these findings are indeed cultural differences for Latin American consumers needs to be treated with caution as our study is not a cross-cultural one. Therefore, further research that compares Chilean or other Latin American consumers' perceptions of risk and trust is required. However, our study does create opportunities for interested researchers to further test these combinations of variables to gain further insights into their generalisability to a Latin American context.

6.3 Managerial Contributions

This study complements previous research on e-commerce adoption by SME managers in Latin America (Grandón et al., 2010; Nasco et al., 2008) by looking at the consumer perspective of online purchasing behaviour with a particular focus on perceptions of risk and trust. For marketing practitioners or SME managers, the findings provide tentative insights into which aspects of perceived risk and trust have the most influence on consumers' intentions to continue purchasing. While it is widely accepted that perceived risk in the Internet environment is the major barrier, our results suggest that this is not insurmountable. The findings show that it has the least influence of all of the variables that significantly impact on attitudes or intentions to purchase online. Moreover perceived risk only influences attitudes and our results suggest that consumers have a sufficiently positive attitude towards purchasing online to overcome such perceptions. Trust in the online vendor and a propensity to trust proved to be insignificant in our model. However, the findings for these two aspects

of risk should not be interpreted to mean that online companies should become complacent. Practitioners will note that the third party assurances are important and they should ensure that these seals are easily recognisable and clearly displayed on the Website. They must continue to allay their visitors' and return customers' concerns about the risks through actively creating and maintaining perceptions of trustworthiness in their role as the vendor and provider of secure transaction facilities.

Since perceptions of risk and trust are often cited as the barriers to online purchasing, our findings do give hope to Latin American firms planning to move into the online retailing space. Moreover, our findings may support Gong's (2009) statement that a rapid diffusion of business to consumer e-commerce may be anticipated as consumers move passed the initial adoption stage and become more appreciative of the benefits that purchasing online provides.

7. Limitations and Future research

Regarding the limitations of this study, the sample derives from a database of university alumni, thus they are more educated than the general population in Chile. However, previous studies have identified that the higher the social class the more likely that consumers adopt technology and the more useful they perceived it to be (Maldifassi and Canessa, 2010). In contexts like Latin America, social class is also indicative of higher education, thus using an alumni database is considered appropriate for obtaining a sample to conduct a survey on online purchasing behaviour. A second limitation is that the study focuses on consumers' perceptions of risk and trust towards purchasing online in a single country. As this is not a cross cultural study, while we may have found some evidence of possible cultural influences they should be treated with caution.

Future research should focus on testing the external validity of these findings by replicating this study in other Latin American countries that have a large consumer take up of the Internet, for example Brazil and Mexico. Moreover, future research for online purchasing

behaviour in Latin America should include a sample of non-purchasers for comparison purposes. We also suggest that future studies should explore additional antecedents of online purchasing behaviour such as the role of perceived benefits and social norms. Finally, this research could be replicated in other developing country contexts from different continents such as South-East Asia and Africa as suggested in Wresch (2003).

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Figure 1: Proposed Conceptual Model 1

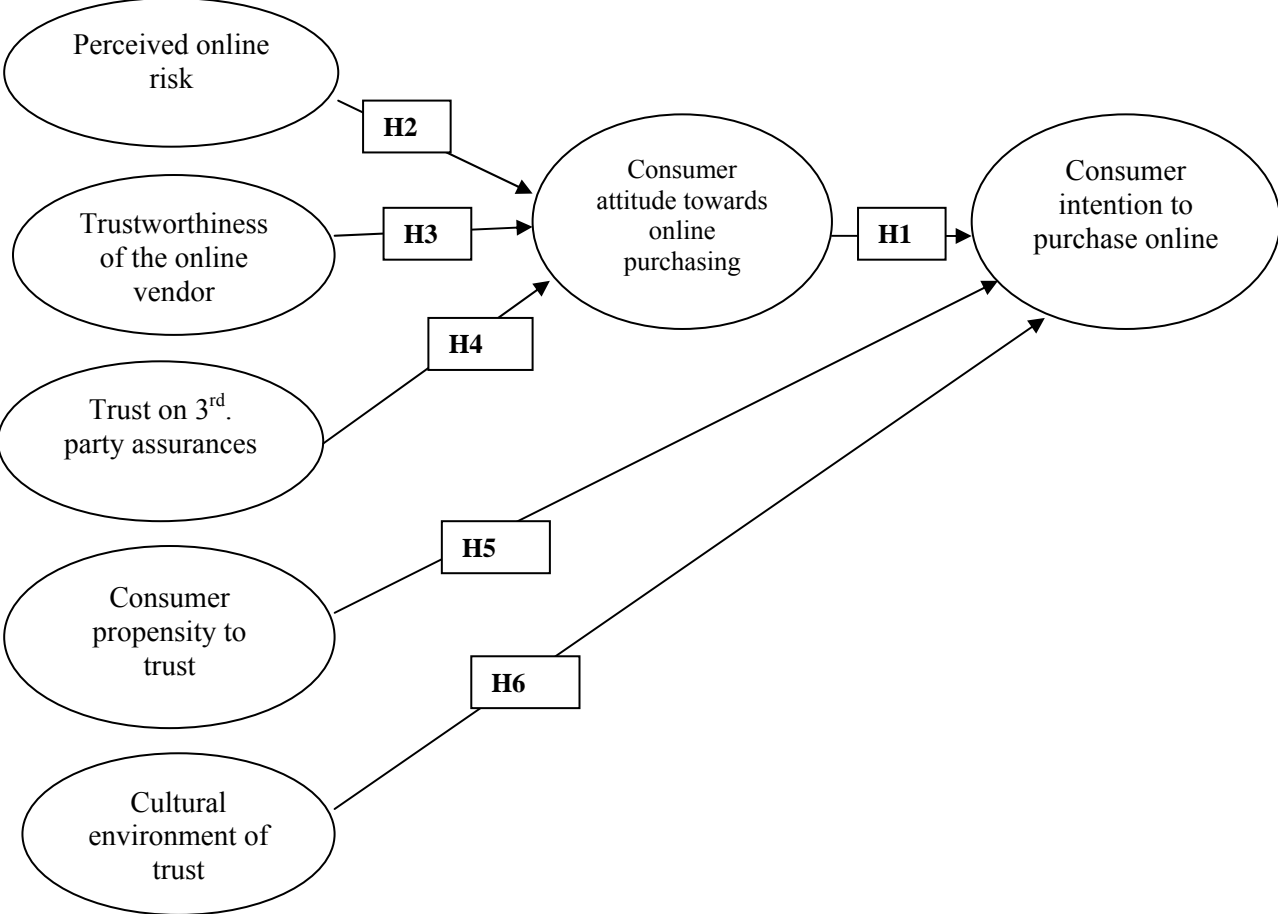


Table 1: Demographic Information of Respondents

		n	Valid %
Gender	Female	98	55.7
	Male	78	44.3
	Total	176	
Age	16 – 20	1	0.6
	21 – 25	12	6.8
	26 – 30	31	17.6
	31 – 35	56	31.8
	36 – 40	32	18.2
	41 – 45	21	11.9
	46 – 50	9	5.1
	51 – 55	9	5.1
	55 +	5	2.8
Total	176		
Marital status	Single no children	48	27.9
	Single with children	12	7.0
	Couple no children	32	18.6
	Couples with children	84	46.5
	Total	176	
Highest Level of Education	Less than 10 years of schooling	1	0.1
	12 years of schooling	4	2
	Technical/vocational qualifications	9	5.1
	Undergraduate degree (bachelors)	58	32.9
	Diploma	42	23.9
	Masters	59	33.5
	Ph.D. or ABD	3	1.5
	Total	176	
Main Occupation	Domestic/home duties	3	1.5
	Craft/tradesperson/factory work	0	0
	Office/clerical/administration	38	21.6
	Police/army	4	2
	Executive/manager	105	59.6
	Teacher/lecturer	11	6.3
	Retired	2	0.1
	Medical/nursing Information	6	3.4
	Technology	6	3.4
	Other	11	5.8
	Total	176	

Table 2: Construct Measures and CFA Results

Constructs	Sources	Indicators	*Std Estimate
Consumer intention to purchase online ($\alpha = .957$)	Measure from Andrews et al. (2007), adapted from Karahanna et al. (1999).	I plan to continue using the Internet to make purchases in the next six months.	.956
		It is likely that I will continue to use the Internet to make purchases in the next six months	.920
		I intend to continue using the Internet to make purchases in the next six months.	.944
Consumer Attitude towards online purchasing ($\alpha = .763$)	Measure adapted from Oliver and Bearden (1985)	Overall, I believe that using the Internet for purchasing is: bad/good	.609
		is not useful/useful	.440
		Is ineffective/effective	.772
		Is very risky/not very risky	.600
		Not easy/easy	.743
Consumer propensity to trust ($\alpha = .819$)	Measure adapted from Cheung and Lee (2001)	It is easy for me to trust people and most things in my life	.690
		My tendency to trust people or things in my life is high	.895
		I tend to trust people and things in my life even when I have little knowledge about them	.751
Trustworthiness of the online vendor ($\alpha = .488$)	Measure adapted from	Internet stores want to be known as vendors who keep their promises and commitments	.613
		Online retailers have more to lose than to gain by not delivering on their promises or commitments	.560
		Internet stores could not care less about servicing a person from Chile [R]	.354
Trust on 3 rd Party Assurances ($\alpha = .770$)	Measure adapted from Cheung and Lee (2001)	There are many reliable third party certification bodies (entities) available for assuring the trustworthiness of the Internet stores	.801
		I think third party certification bodies (entities) such as e-trust are doing a good job.	.639
		Existing third party certification bodies (entities) are adequate for the protection of Internet shoppers' interests.	.739
Cultural environment of trust ($\alpha = .523$)	Measure from Cheung and Lee (2001)	A high degree of trust exists in my family	.350
		People in my community trust each other	.357
		I live in a high trust society	.537
Perceived online risk ($\alpha = .822$)	Measure from Andrews et al., (2007), adapted from Jarvenpaa et al. (2000).	I feel safe making purchases on the Internet using my credit card [R]	.831
		I feel safe giving my personal details to an online organization if requested [R]	.832
		Compared with other ways of making purchases, I think that using the Internet is more risky.	.603
		There is too much uncertainty associated with using the Internet to make purchases.	.832

Table 3: Means, Standard Deviations and Correlations

	Mean	Std. Dev.	INT	ATT	POR	TOV	TTA	CPT	CET
INT	5.49	1.21	1	.377**	-.569**	.491**	.747**	.234**	.390**
ATT	5.65	0.90	.377**	1	-.398**	.096	.371**	.132	.251**
POR	3.66	1.38	-.569**	-.398**	1	-.339**	-.566**	-.211**	-.271**
TOV	5.33	1.14	.491**	.096	-.339**	1	.455**	.087	.226
TTA	4.92	1.22	.747**	.371**	-.566**	.455**	1	.093	.265**
CPT	4.17	1.39	.234**	.132	-.211**	.087	.093	1	.410**
CET	4.49	1.06	.390**	.251**	-.271**	.226	.265**	.410**	1

***. Correlation is significant at the 0.01 level (2-tailed)*

**. Correlation is significant at the 0.05 level.*

Legend: INT=Intentions to purchase online, ATT=Attitude towards purchasing online, POR=Perceived online risk, TOV= Trustworthiness of the online vendor, TTA= Trust on third party assurances; CPT= Propensity to trust, CET= Cultural environment of trust

Table 4: Results of Hypotheses Testing in Model 1

Hypotheses	Path directions		Est.	St. Err.	z	P	Result
H ₁	AT	→ INT	.541	.220	2.459	.014	Supported
H ₂	POR	→ AT	-.209	.090	-2.315	.021	Supported
H ₃	TOV	→ AT	-.198	.140	-1.413	.158	Not Supported
H ₄	TTA	→ AT	.259	.134	1.935	.054	Marginally Supported
H ₅	CPT	→ INT	-.485	.204	-.373	.018	Not Supported
H ₆	CET	→ INT	1.824	.419	4.333	.000	Supported

Legend: INT=Intentions to purchase online, ATT=Attitude towards purchasing online, POR=Perceived online risk, TOV= Trustworthiness of the online vendor, TTA= Trust on third party assurances; CPT= Propensity to trust, CET= Cultural environment of trust

Figure 2: Competing Model 2

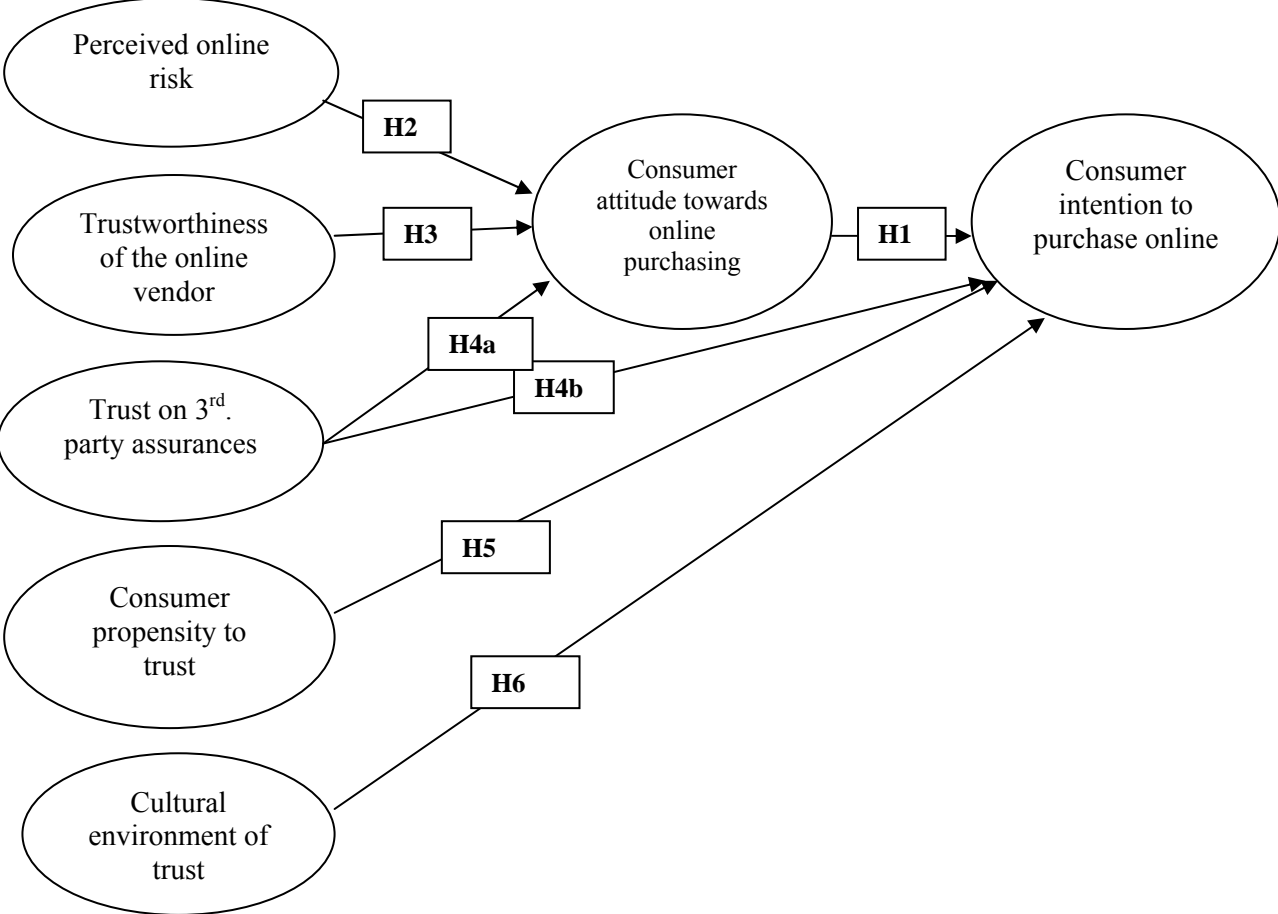


Table 5: Results of Competing Model 2

Path directions			Est.	St. Err.	z	p
ATT	→	INT	.381	.191	1.993	.046
POR	→	ATT	-.212	.093	-2.283	.022
TOV	→	ATT	-.156	.134	-1.166	.244
TTA	→	ATT	.231	.138	1.883	.092
TPA	→	INT	.552	.136	4.068	.000
CPT	→	INT	-.017	.097	-.179	.858
CET	→	INT	.600	.209	2.872	.004

Legend: INT=Intentions to purchase online, ATT=Attitude towards purchasing online, POR=Perceived online risk, TOV= Trustworthiness of the online vendor, TTA= Trust on third party assurances; CPT= Propensity to trust, CET= Cultural environment of trust