Direct and Indirect Effects of Perceived Risk and Website Reputation on Purchase Intention: A Mediating Role of Online Trust

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Abstract

Success in electronic commerce relies greatly on customer's trust. While other studies have examined various factors affecting the online trust, a few have researched on the joint effects of perceived risk and website reputation on purchase intention using online trust as a mediator. The current study attempts to fill the gap. 300 samples of online shoppers participated in web-based questionnaires using a quota sampling technique. Based on the confirmatory factor analysis (CFA), the measurement is valid and reliable. Using the structural equation modeling (SEM) technique, we confirmed the significant direct effects of the perceived risk and the website reputation on the purchase intention. Furthermore, both factors did have the significant indirect effects on the intention through the online trust. In addition to extending theoretical insight into the online trust as a mediator for the effects of the perceived risk and the website reputation on the purchase intention, web-based vendors may adopt the findings to adjust their online stores to raise customer's trust and ultimately increase the possibility of the purchase.

Key words: Online Trust, Perceived Risk, Website Reputation, Purchase Intention

JEL classification: C51, M15, M31

Introduction

Online trust has played a critical role in electronic commerce (Kim and Lennon, 2013; Kim, et al, 2003). Vendors must ensure that their websites are equipped with all of the contents that contribute to the high amount of visitors' trust such that they would like to place an order instantly. One of the critical factors that affect a visitor's intent to purchase is whether the online transaction is safe (Corbitt, et al., 2003). Not all
visitors would find the online store trustworthy and place an order without having certain concern. It is common that the risk-conscious visitors might not establish online trust firmly thereby giving up easily their intent to make a purchase. Although previous research has ascertained the connection among antecedent factors and the online trust (Kim and Lennon, 2013; Urban, et al., 2009; Yoon, 2002), the results are not conclusive. It is therefore interesting to examine the extent to which the visitors’ perceived risk affects their purchase intention directly or through their trusting beliefs.

Not only does perceived risk effect trust, website reputation could draw online customers to trust a web-based store (Einwiller, 2003; Yao, Li, 2008). Kotha et al. (2001) contended that people prefer to buy more from reputable websites than from unfamiliar stores. When customers browse websites, their decisions to buy are based on information in the sites. Should the information lead the website visitors to feel positive, they are likely to make a purchase (Eroglu, et al., 2001; Luo and Cook; 2007). In the past, online sellers are solely responsible for crafting their online stores, ranging from handling all technical requirements to ensure the store’s functionalities to arranging all visual items so the store display is aesthetically appealing. Yet, the increasing number of services has offered sellers more choices of hosting online stores. Such services including Facebook merchant, iTrueMart, or weloveshopping yield large flexibility in running the online stores. Nonetheless, the sellers must comply with rules set up by the services. As a result, the visitors’ trust could be attributable to the website reputation. Einwiller (2003) verified that the website reputation is one of important antecedents of online trust. The evidence was from both electronic commerce and economics fields.

Once customers find electronic commerce websites trustworthy, they could have strong intent to shop at the websites (Eroglu, et al., 2003). In other words, online purchase intention is a consequence of trust. Indeed, researchers have evaluated the extent to which online trust could contribute to the high volume of actual purchase. However, it is fairly difficult to have access to the actual sale since many vendors are uncomfortable sharing the actual figures with researchers. As a result, the purchase intention is often adopted in lieu of the actual purchase (Kim and Lennon, 2013; Urban, et al., 2009). Therefore, the current study expects to achieve the following objectives:

- To test effects of perceived risk and website reputation on trust;
- To test indirect effects of perceived risk and website reputation on purchase intention moderated through trust; and
- To examine direct effects of perceived risk and website reputation on purchase intention.

**Literature Review**

Online trust has gained remarkable research attention (Corbitt, et al., 2003; Kim, et al., 2003; Urban, et al., 2009). Compiled from various literature, it is defined as the willingness to be vulnerable to the actions of the other party (e.g., an online vendor) based on the expectation of what the party would deliver. Trust typically deals with relationships between at least two parties. In the electronic commerce context, it could be a buyer’s or a vendor’s trust. The online vendors however tend to have more control on web-based transactions than the buyers. Such control includes the design of the stores, the technical security provided for customers or the back-end operation. As a result, the buyer’s trust has been the prime issue of research including the current study.

Previous research on online trust can be classified into two major groups. The first group looks at trust as a process while the second considers it as a unified concept. As a process, researchers have made an effort to understand how trust is developed. McKnight, et al. (2002) validated the process through which online trust is formed, developed, and transformed into behaviors. Their model states that web visitors are disposed to trust as they are visiting websites. In addition to the disposition, visitors’ perception of the institution environment (e.g., structural characteristics of the stores including security seals; or the trust that was transformed from the offline context related to the store such as the brand equity or the product information) will lead them to develop trusting beliefs (Shankar, et al., 2002). Based on psychology theories, the trusting beliefs together with the disposition to trust and the institution-based trust will drive an intent to engage in certain trust-related behavior. McKnight, et al (2002) also confirmed three common
components of the trusting beliefs: competence, benevolence, and integrity. In fact, viewers consider the content provided on websites and subsequently assess the extent to which they would trust sellers (Eroglu, et al., 2001). Such content including online review or website reputation may be so compelling that the viewers are willing (or unwilling) to engage in online transactions (Hunter and Mukerji, 2011). The trust is therefore the cognitive process.

As a unified concept, trust is examined in relation to other variables. Numerous studies have addressed the antecedents and the consequences of online trust. In other words, trust is a significant mediator of many other concepts (Shankar, et al., 2002). Among many antecedents of online trust, we are interested in risk perceived by customers and reputation of a website. In this study, the perceived risk is defined as a customer’s perception of uncertainty in the transaction through websites or in the outcome of the transaction. A fair amount of previous work has addressed customer’s perceived risk but they often used different terms such as perceived insecurity or perceived uncertainty (Urban, et al., 2009; Yoon, 2002). While the other terms are acceptable, they often connote technical aspects of an electronic commerce system. However, our study attempts to address such perception from the customer’s perspective. According to Urban, et al (2009)’s remark, if customers are empowered by contents on websites or by careful store layout design, they are likely to trust and later engaged in an online transaction. Examining what contributed to online trust, Yao and Li (2008) reported the negative correlation between customers’ perception of risk while doing online transaction and their trust in electronic commerce. Using the Stimulus-Organism-Response (S-O-R) model as a conceptual framework, Chang and Chen (2008) confirmed the correlation between visitor’s perceived risk and their trust in the online retailing context. With interest in the Irish Gen-Y’s purchase intention to do online shopping, Galezfiskwa (2014) discovered the higher the risk, the less the online trust. It is in line with Ling, et al., (2011) who did a similar survey on Malaysian online shoppers. As a result, our first hypothesis will be as follows.

**H1: customers’ perceived risk is negatively related to their online trust.**

The other antecedent of trust in which we are primarily interested is website reputation. It is defined as customers’ positive perception of the website as a result of their exposure to the details in it or their prior experience associated with the website (e.g., residents in a real estate project may regard the website of condominium developed by the real estate company differently from those who have no prior experience). According to Kim and Lennon (2013), the website reputation consists of two sets of information cues. One is the intrinsic cues including the attributes directly related to the website and the other is the extrinsic cues including the other attributes unrelated to the website. The customers’ perceived reputation of the website is thus a function of the two information cues (Kim and Lennon, 2013). The example for the former would be an advertising message or a picture of promotional items whereas that for the latter is a background color or the layout that is responsive to a variety of access devices.

Heijden, et al (2003) remarked that little attention was given to examine the connection between website reputation and online trust. Most of previous literature has addressed whether technical attributes could enhance the trust. Yao and Li (2008) used the structural equation modeling technique to confirm the positive relationship between website reputation and trust on one Chinese website. Also, Yoon (2002) discovered the significant correlation between trust and website reputation (or in Yoon’s term is the site properties). Moreover, Kim and Lennon (2013) verified the negative link between website reputation and perceived risk. According to Eroglu, et al.’s (2001) model which is based on the Stimulus-Organism-Response (S-O-R) framework, trust can be viewed as the cognitive aspect of the Organism. The online trust is in the viewer’s mind concerning an online transaction through a website (p. 181). Eroglu, et al. (2003) confirmed two types of effects of online store’s atmospheric aspect (e.g., website reputation). First, it significantly leads to the visitors’ response after their visits. That is, they may enjoy the visit to a store and ultimately make a purchase or they may be so confused and frustrated that they must leave the store instantly and refrain from a revisit. Second, the atmospheric aspect substantially contributes to the visitors’ cognitive states (e.g., their perceived risk or their trust). Upon their first visit, the visitors will develop their affective states of mind. The visit could be pleasant or intimidating depending largely on visual contents or textual details on the website. Such affection could lead to various amounts of trust. Despite the noted effect of website reputation on visitors online trust, empirical studies to validate the effect is rare. Only
Bente, et al (2014) who confirmed the link between the website reputation and the visitors’ trust among German and Arab users. In addition, the online purchasing behavior between these two groups was insignificant, implying common online behavior across two cultures. Therefore, Hypotheses 2 and 3 will be stated as follows.

\[ H2: \text{customers’ perceived website reputation is positively related to their trust, and} \]
\[ H3: \text{customers’ perceived website reputation is positively related to their perceived risk.} \]

The consequence of online trust in electronic commerce is the extent to which customers have made a purchase with satisfaction. However, the major limitation in measuring such consequence is (1) lack of access to the actual purchase and (2) invalid measurement of satisfaction if the purchase does not take place but is only assumed. As such, many researchers turned to measure purchase intention (Shankar, et al., 2002; Urban, et al., 2009; Zhu, et al., 2009). The purchase intention in the current study is defined as the likelihood that an online purchase may take place on a website. This is an instance of trust-related behaviors (McKnight, et al., 2002; Yoon, 2002) or benefits of electronic commerce (Kim, et al., 2003). Regarding the Stimulus-Organism-Response (S-O-R) framework, the purchase intention is comparable to the Response component. In other words, it is a visitor's response to an electronic commerce website after his or her trust was established. In their attempt to verify the online trust model, McKnight, et al (2002) propose the direct link between the trusting beliefs and the trust-related behavior. Although online trust has been under many investigations, there are few empirical studies that have confirmed the link between the trust and the purchase intention. The online trust was found to have significant yet indirect effect on purchase intention (Kim and Lennon, 2013; Zhu, et al., 2009). These two studies confirmed the effect mediated through customers’ perceived risk. By virtue of trust, we strongly believe that the higher the trust, the more likely the purchase intention. Consequently, Hypothesis 4 will be stated as the following.

\[ H4: \text{customers’ online trust is positively related to purchase intention.} \]

The online visitors’ purchase intention may indirectly depend on their perceived risk and their perceived website reputation through their online trust as a mediator. Nonetheless, the perceived risk and the perceived website reputation may have direct effects on the purchase intention. Intuitively, if people perceive a certain amount of risk in making an online transaction, they are likely to make no purchase. On the contrary, if they perceive a high reputation of the online store, the purchase could be possible. In an attempt to validate the Stimulus-Organism-Response (S-O-R) model of online retailers, Eroglu, et al (2003) confirmed the direct effects of the Stimulus on the Response construct. Online trust was also found to have direct effect on visitors’ purchase intention and to act as a mediator passing the effect of perceived risk or perceived website reputation through the intention (Galeziewska, 2014; Chang and Chen, 2008; Ling, et al., 2011; Zhu, et al., 2011). As a result, Hypotheses 5 and 6 are as the following. Figure 1 shows the study’s conceptual model with the four proposed hypothesis.

\[ H5: \text{customers’ perceived risk is negatively related to purchase intention, and} \]
\[ H6: \text{customers’ perceived website reputation is positively related to purchase intention.} \]

**Research and Methodology**

**Questionnaire Development**

The survey questionnaire consisted of five major sections. Section 1 asked five questions to measure subjects’ perceived risk. The scales were adjusted from Man (2006). In Sections 2 to 4 were each five questions measuring their perception of website reputation, their trust in electronic commerce and their purchase intention, respectively. The scales were based on Mansour and Yaghoob-Nejadi (2009) and Chang and Chen (2008). Section 5 asked the subjects’ demographics. The questions in Section 1 to 4 used five-point Likert-type items, anchored by 1 = least agreement and 5 = most agreement. Given that the subjects are Thai, we translated all items into Thai and had them checked by two faculty members in the language institute to ensure the translation quality. We subsequently pretested them with two members in
Chulalongkorn Business School and five online shoppers to assess the face validity. We made a few changes based on comments from the pretest participants.

Figure 1: Conceptual framework consisting of four constructs and proposed hypotheses

Sampling and Data Collection

The current study adopted a web-based survey because the target subjects are those who have been engaged in online shopping activities or have at least once completed an online transaction. As a result, we had a few screening questions at the beginning of the survey to recruit only qualified subjects. Furthermore, according to comments from one pretest subject, it would have been difficult for subjects to respond properly to questionnaire items if they have had no frame of reference. In other words, we could not have just asked their perception of website reputation without giving what the website is. As a result, we specifically refer to one of the most accepted electronic commerce website in Thailand: weloveshopping.com. To draft and manage the online questionnaire, we decided to use the service at surveymonkey.com. We also relied on the quota sampling technique to ensure online shoppers in four age groups: less than 15 years old, 16-25, 26-35, 36-45 and 46 or higher. According to Dillman (2000), we needed at least 60 subjects in each age group, yielding the total of 300 survey participants. The call for research participants were placed through multi channels including personal email contacts and various online discussion boards on electronic commerce topics. Included in the call for research participation is the explanation through which the sample’s participation was assured (1) the anonymity and confidentiality and (2) no right or wrong answer. Such explanation followed the recommendations of Podsakoff, et al. (2003) and Chang, et al (2010) to minimize the problem of common method variance (CMV). We were finally able to have the 300 qualified subjects within the two-month data collection. Of the 300 participants, 71 percent were educated to a college level or above, 41 percent were still students, and 33 percent were staff in private companies. 37 percent had at least one time experience completing online shopping but all of them admitted their online shopping activities, ranging from looking for the best offer, locating product comparison to searching for product reviews.

Analysis

In line with the two-approach recommended by Anderson and Gerbing (1988), we first confirmed the measurement using the confirmatory factor analysis (CFA). The structural equation modeling (SEM) was then estimated for hypothesis testing. In addition to the two-step approach, descriptive statistics were provided.
Both the measurement model and the structural model were assessed using the maximum likelihood method (Chang and Chen, 2008) in AMOS (version 22). To evaluate the fit of the model, the comparative fit index (CFI), the goodness of fit index (GFI), the adjusted goodness of fit index (AGFI), the normed fit index (NFI) and root mean square error of approximation (RMSEA) were assessed in addition to the chi-square test. In general, model fit is considered to be adequate if GFI, NFI and CFI are larger than 0.9, AGFI is larger than 0.8 and RMSEA is smaller than 0.08 (Hair, 2013).

Findings

Measurement Model

The measurement model yielded the ratio of the chi-square to the degrees of freedom ($\chi^2$/df) is 2.355, which falls within the suggested value of 5 or below (Hair, 2013). In addition, all indices appear to confirm the measurement model (CFI=0.941, GFI=0.898, AGFI=0.858, NFI=0.903 and RMSEA=0.067). As a result, there was an acceptable fit between the model and the observed data.

Furthermore, each construct was evaluated separately by examining the indicator loading for statistical significance and assessing the construct’s reliability and variance extracted (Hair, 2013). As shown in Table 1, the Cronbach’s alpha for each of the four constructs is higher than 0.7, the threshold of which is considered acceptable (Nunnally, 1978). Also, the composite reliability value for each construct is larger than 0.7, confirming the construct reliability. To establish the measurement’s discriminant reliability, we adopted the average variance extracted technique. As reported in Table 2, the value of the average variance extracted for each of the four constructs is higher than 0.5, the threshold of which is considered acceptable (Hair, 2013). After the measurement was deemed valid and reliable, descriptive statistics of the four constructs were computed and shown in Table 3. An examination of skewness and kurtosis in Table 3 validated the normal distribution of all four constructs since the absolute values of the two statistics are all less than one (Mulylle, et al., 2004).

Structural Model

To assess the model structure and to test all hypotheses, AMOS (version 22) was used with the maximum likelihood method. Given the multiple and interrelated dependence relationships among the constructs, the structural equation modeling technique is appropriate. The overall fit of the model is acceptable. The ratio of chi-square to the degrees of freedom ($\chi^2$/df) is 1.914, indicating a good fit. The other indices confirm acceptable fit of the model (CFI=0.960, GFI=0.913, AGFI=0.878, NFI=0.921, RMSEA=0.055 with the p-value of 0.179, and HOELTER .05=188).

Table 1: Measurement model fit indices for reliability and validity

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Cronbach’s alpha</th>
<th>Composite reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived risk</td>
<td>0.861</td>
<td>0.871</td>
</tr>
<tr>
<td>Website reputation</td>
<td>0.883</td>
<td>0.927</td>
</tr>
<tr>
<td>Trust</td>
<td>0.844</td>
<td>0.847</td>
</tr>
<tr>
<td>Purchase intention</td>
<td>0.866</td>
<td>0.900</td>
</tr>
</tbody>
</table>

Notes: Criteria: Cronbach’s alpha > 0.70, and composite reliability

Table 2: Correlation matrix and Average Variance Extracted (AVE)

<table>
<thead>
<tr>
<th></th>
<th>Perceived risk</th>
<th>Website reputation</th>
<th>Trust</th>
<th>Purchase intention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived risk</td>
<td>0.714</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Website reputation</td>
<td>-0.494 (0.244)</td>
<td>0.717</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trust</td>
<td>-0.656 (0.244)</td>
<td>0.502 (0.244)</td>
<td>0.527</td>
<td></td>
</tr>
<tr>
<td>Purchase intention</td>
<td>-0.622 (0.244)</td>
<td>0.534 (0.244)</td>
<td>0.643</td>
<td>0.642</td>
</tr>
</tbody>
</table>

Notes: Correlation coefficients in each cell and average variance extracted (AVE) on diagonal; *** p-value <.000; and in parenthesis is the squared correlation.
The result shown in Figure 2 supported all hypotheses. Perceived risk and website reputation have significant effects on trust, supporting H1 and H2. It implies an amount of trust is significantly attributable to perceived risk and website reputation. While the effect of the perceived risk is negative, that of the website reputation is positive. Also, the website reputation contributes significantly to the perceived risk. H3 is therefore supported. However, the higher the reputation, the less the risk. Finally, the trust, the perceived risk and the website reputation jointly explain the purchase intention. H4, H5, and H6 are thus supported. Note that both of the perceived risk and the website reputation have direct and indirect effects on the purchase intention, albeit at varying degree and with different directions. All direct, indirect and total effects are in Table 4. Further discussion will be in the next section.

Figure 2: Summary of results in hypothesized structural (standardized) model
Notes: Significant at p<0.05, χ²=287.115, df=150 (p-value=0.000), CFI=0.960, GFI=0.913, AGFI=0.878, NFI=0.921, RMSEA=0.055 with p-value of 0.179, and HOELTER .05=188.

Table 4: Direct, indirect, and total effects

<table>
<thead>
<tr>
<th>Dependent variables</th>
<th>Independent variables</th>
<th>Perceived risk</th>
<th>Website reputation</th>
<th>Trust</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct effect</td>
<td>Perceived risk</td>
<td>n/a</td>
<td>-0.558</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>Trust</td>
<td>-0.604</td>
<td>0.293</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>Purchase intention</td>
<td>-0.230</td>
<td>0.195</td>
<td>0.484</td>
</tr>
<tr>
<td>Indirect effect</td>
<td>Perceived risk</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>Trust</td>
<td>n/a</td>
<td>0.337</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>Purchase intention</td>
<td>-0.292</td>
<td>0.433</td>
<td>n/a</td>
</tr>
<tr>
<td>Total effect</td>
<td>Perceived risk</td>
<td>n/a</td>
<td>-0.558</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>Trust</td>
<td>-0.604</td>
<td>0.630</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>Purchase intention</td>
<td>-0.522</td>
<td>0.628</td>
<td>0.484</td>
</tr>
</tbody>
</table>

Notes: Standardized estimates are shown. All estimates are significant at p-value < 0.05
Conclusion

The findings provide support for the conceptual framework in Figure 1 and for the hypotheses regarding the structure of the four constructs. The analytic results demonstrate that customers’ perceived risk and the website reputation significantly affect their online trust, and in turn, their purchase intention toward online transaction. In other words, online trust is a mediator through which effects of the perceived risk and the website reputation pass onto the purchase intention. Also, the direct effect of the perceived risk and that of the website reputation on the purchase intention are found significant in the present study. Based on the Stimulus-Organism-Response (S-O-R) concept, the website reputation, seen as the Stimulus, significantly affects the perceived risk and the trust, both of which are seen as two instances of the Organism. The discussion are below.

First, the results show that the purchase intention is directly and indirectly attributable to the perceived risk, the website reputation and the online trust. The contribution is large for the R2 = 0.667. While all of the three factors directly affect the purchase intention, the perceived risk and the website reputation did have the indirect effect mediated through the trust on the intention. Based on Table 4, the total effects of the three factors on the intention are -0.522, 0.628, and 0.484, respectively. That is, the website reputation appears to have the highest amounts of impact on the intention whereas the trust contributes to the purchase intention the least. Both effects are positive, implying the high amounts of the website reputation or the trust will result in the high amount of the purchase intention. The effect of the perceived risk is also significant but in the opposite direction. Such effect could be expected because once visitors perceive the large amount of risk in doing an online transaction, they are unlikely to make any online purchase. Only work of Chang and Chen (2008) included all four constructs in the current study. We have confirmed their results. However, the online trust in their study had the highest total effect on the purchase intention followed by the perceived risk and the website reputation (or the website quality in their work). Given the Taiwanese in Chang and Chen (2008) and Thai in the present study, our findings point to cultural differences in perceptions regarding the online commerce. Besides Chang and Chen’s (2008) work, other previous studies had addressed a few links investigated in the present work. Examining roles of trust, risk and purchase intention among Irish online shoppers, Galeziewska (2014) confirmed the positive effect of trust and the negative effect of perceived risk on purchase intention. Yet, Comegys, et al., (2009) discovered no relationship between the perceived risk and the actual first buying transaction; nonetheless, trust still played a significant role in the purchase.

Second, customers’ online trust is proved to be the significant mediator through which the effects of the perceived risk and the website reputation pass onto the purchase intention. Table 4 demonstrates that the indirect effect of the two factors mediated through the trust are of -0.292 and 0.433, respectively. The different signs indicate different direction of the effects. Considering only the magnitude, the website reputation appears to have more significant indirect effect through the trust on the purchase intention than does the perceived risk. Indirect effects of the perceived risk and the website reputation on the purchase intention were also reported in Chang and Chen (2008). Called in their study as the website quality, the website reputation had less indirect effects on the intention than did the perceived risk. Based on the differences in the posited links in Chang and Chen (2008); however, the comparison between their and our studies must be made with caution. Using the structural equation modeling technique, Ling, et al., (2011) confirmed the indirect effect of Malaysian online shoppers’ perceived risk on their purchase intention through the online trust.

However, the effects of the perceived risk and the website reputation on the purchase intention were not only mediated through the trust, but also direct on it. Considering only the direct effects on the purchase intention from the three sources, the effect of trust is the most substantial (e.g., 0.484) while that of the website reputation is the least (0.195). Also as expected, the direct effect of the perceived risk is in the reverse direction from those of the website reputation and the trust. Our findings on the direct effects are in line with Chang and Chen (2008), Sun, et al., (2010) and Zhu, et al., (2011) in which the direct effect of the website reputation on the online trust was confirmed. It is therefore reasonable to claim that both online...
trust and perceived risk directly affect purchase intention and the effect of the former on the intention is more substantial than that of the latter.

Third, based on the Stimulus-Organism-Response (S-O-R) concept, the website reputation can be seen as a stimulus for online visitors to perceive different degrees of risk associated with online transaction. It is evident in the present study that the perception of the risk depends reversely on the website reputation. Should visitors note the reputation of the website, they would perceive significantly less risk. However, Sun, et al., (2010) failed to verify the direct effect of the website reputation on the perceived risk. Nonetheless, the website reputation did have direct effect on the purchase intention (see Figure 2). This may post the limitation on the application of the S-O-R concept. Had the concept been robust, the effect of the website reputation on the purchase intention (i.e., seen as the Response component of the S-O-R concept) would have been mediated only through the trust.

Finally, using the structural equation modeling, the online trust was remarkably explained by the perceived risk and the website reputation for the R2 = 0.649. Considering the total effects of both factors on the trust (see Table 4), the website reputation appears to contribute more to the trust than does the perceived risk. Yet, the direct effect of the perceived risk is more significant than that of website reputation. It implies the indirect effect of the website reputation on the online trust (0.337) happens to be larger than its direct effect (0.293). This may hence emphasize the importance of applying the Stimulus-Organism-Response (S-O-R) concept and the structural equation modeling technique to examine the direct, indirect, and total effects of the perceived risk and the website reputation on the online trust. It further implies that the trust is more sensitive if visitors perceive the reputation of the website than if they perceive the risk associated with the online transaction. Such finding is in line with Yao and Li (2008).

The study’s findings offer both theoretical and practical contributions. Three issues on the theoretical insights are as follow. First, we are able to validate the framework proposed in Figure 1 using the structural equation modeling technique on data collected in Thailand. It verified that the online trust is a significant drive to the visitors’ purchase intention, in addition to the direct effects from their perceived risk and perceived reputation of the website. Second, the perceived risk and the website reputation hold the distinctive direct effects on the purchase intention as well as the indirect effects mediated through the trust. Adding to much research which recognizes the mediating role of the online trust, our findings confirm the significant and direct effects of the two factors on the purchase intention. Finally, our results on the highest total effect of the website reputation on the purchase intention, as compared to those of the perceived risk and the online trust point to the critical adoption of the Stimulus-Organism-Response (S-O-R) concept to examining influential factors in the online retailing context.

Also, our discovery has practical utility. First, practitioners must be attentive to antecedents of online trust. Since the perceived risk and the website reputation accounted for the large portion of trust, online vendors should look for a design guideline for an electronic commerce website to gain high reputation. Such recommendation is a result of the website reputation being found to have higher impact on the online than does the perceived risk. Second, all three factors (i.e., the perceived risk, the website reputation and the online trust) have the significant total effects on the purchase intention. Practitioners must therefore put effort to manage them sensibly. If the budget is the issue, their focus may be on crafting the website to earn reputation since it has the largest total effect on the purchase intention.

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References


