

Consumer's Perceived Communicational Risks in Predicting Internet-Based Shopping Intention

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ABSTRACT

It is widely known in the related literature that consumer's perceived communicational risks act as a chief barrier to their online purchase decision. Though, in such regards, few of the most recent text focused precisely towards a modified fact that the consumer's shopping intention may depend on their perceived communicational risks in an online trade. Still, a very little attention has been kept to this precise concept leaving an academic gap. This research aims to contribute towards closing the research issue as such. By gathering data through existing literature, the researchers probe into the total force. The findings uncovered that the global web vendors' efforts to lessen certain types of communicational risks such as performance, financial, psychological and time will improve consumers' intentions to purchase online. Consequently, the future researches are recommended to be undertaken in order to explore and refine the measurement scales used to measure perceived communicational risk and online purchase intention. Moreover, a longitudinal study is also recommended to discover how the consumers' behavioral intention toward Internet changes over time due to the rapid development of this communicational technology.

Keywords: *Online communication, Online shopping, Online marketing, e-business, Perceived risk, Perceived financial risk, Trust, Purchase intention.*

INTRODUCTION

Modern consumer behavior is facilitated by easy communicational access to Internet technology and online purchase. The scholars have found several benefits of online purchase over traditional purchase. For example, Peterson et al. (1998) note that the Internet allows consumers to shop or browse 24/7 without having to travel to shopping malls. Wolhandler (1999) notes that the Internet provides a more enjoyable purchasing experience because it offers savings of money and time, extensive product selection, no queuing, no shipping costs, and no pressure from sales people. However, despite these benefits, consumers still have concerns related to this new method of communication (Hong and Yi, 2012). In fact, many

consumers feel that online purchase process is riskier than the traditional purchase process (Hong and Yi, 2012). For these consumers, there are various issues. First, many customers do not feel comfortable looking at products and deals online and then communicate them on Internet. According to Janssen (2014), these consumers still prefer going to stores to verify the product's quality and communicate to a salesperson before spending their money. Second, many consumers feel insecure about making payments online when they are not certain where the money is going. Since there is an increased possibility of fraud on the Internet, online communication is not sufficient to calm the fears of this community. Third, many consumers are irritated by spam emails for promotional offers and new deals. Spam emails, particularly on social networking sites, have reduced the value of online contents in the eyes of many consumers.

Concerns that lead to a consumer not communicating to purchase are generally referred as perceived risks (Forsythe and Shi, 2003; Taylor, 1974). The concept of perceived risk was developed in the early 1960s. According to Cox and Rich (1964), one major reason for consumer uneasiness is the uncertainty that their buying goals will be attained. They further note that perceived risk is a main source of such uncertain feelings. Murray (1991) also observed similarly that when making a particular decision, a consumer's uncertainty about gain or loss is represented by their perceived risk. Thus, perceived risk can be considered as the measure of risk perceived by a consumer when intending towards a particular purchasing decision. The risks regarding online purchases are serious and could be higher for some commercial enterprises than others.

In the 1960s, when traditional purchasing were the norm, consumers perceived higher risk in making in-home (e.g., mail or phone order) purchase decisions (Akaah and Korgaonkar, 1998; Cox, 1967). According to Cox and Rich (1964), while arranging an in-home delivery, the consumer's prime fear was not receiving the desired product. It was found by Spence et al.(1970) and Gillett (1970) that consumers felt in-home purchasing was risky because of their inability to do pre-purchase examinations, the difficulty of returning faulty or unsatisfactory goods, and ethical concerns about the businesses they were buying from. Due to these reasons, consumers felt that Internet purchase intention was much riskier (Tan, 1999). In a few recent studies (i.e. Hong and Yi, 2012; Biswas and Biswas, 2004; Forsythe and Shi, 2003; Bhatnagar et al., 2000), the scholars considered online purchase intention to be riskier than in-store purchase intention. However, to date, it appears that scholars have not provided enough evidence to predict those precise components of perceived risk which could be a communication barrier to online purchase intention. Therefore, the aim of current research is to address this academic gap.

LITERATURE REVIEW

Components of Purchase Communicational Risk

There were notable individual contributions (i.e., by Akram, 2008; Pavlou, 2003; Liao and Cheung, 2001; Miyazaki and Fernandez, 2001; Jarvenpaa and Leidner, 1999) found to address the above mentioned research issue. The researchers (e.g. Cheng et al., 2013 etc.) confirmed several perceived risk factors in their studies. Among these reviewed components, two were

found to be merged concepts. Several past researchers (i.e. Suresh and Shashikala, 2011; Dabhade, 2008; Corbitt et al., 2003) analyzed the concept of delivery risk together with the concept of time risk. Similarly, several researchers (e.g. Suresh and Shashikala, 2011; Corbitt et al., 2003) analyzed the concept of social risk together with the concept of psychological risk. Altogether, this research summarizes four prime elements of online consumer's perceived risk: product performance risk, financial risk, psychological risk and time-loss risk (See Table 1). The following sub-sections review these four perceived risk components in detail.

Table 1: Summary of Past Literature - Components of Purchase Communicational Risk

Author(s)	Financial risk	Product performance risk	Psychology risk	Time risk	Delivery risk	Social risk
Brosdahl and Almousa, 2013	√	√	√	√		
Cheng et al., 2013	√	√		√		√
Hong and Cha, 2013	√	√	√		√	√
Nepomuceno et al., 2013	√	√	√	√		
Hong and Yi, 2012	√	√	√	√	√	√
Aghekyan-Simonian et al., 2012	√	√		√		
Suresh and Shashikala, 2011	√	√	√	√		√
Yu, 2009		√				
Dabhade, 2008	√	√	√	√		
Hassan et al., 2008	√	√	√	√		√
Bhatnagar and Ghose, 2004		√				
Naiyi, 2004	√	√			√	
Moore, 2004	√	√	√	√		√
Forsythe and Shi, 2003	√	√	√	√		
Corbitt et al., 2003	√	√	√	√		√

METHODOLOGY

To measure comprehensible study outcomes, a qualitative study was conducted. Although, to gather with such investigation, various primary approaches can generally be used, the present study focused on data gathering through recent past researches in the related context. For this reason, several study related material (i.e. journal, reports, conference papers, websites, articles) were evaluated. Saunders et al. (2007) suggested that through utilization of such approach, more accurate and reliable information can be obtained. The analysis is presented in subsequent section.

RESULTS AND DISCUSSION

Product Performance Risk

The fear of an online purchaser of not receiving the expected product is related to perceived product performance risk (Forsythe et al., 2006; Torkzadeh and Dillion, 2002). Several scholars (i.e. Forsythe and Shi, 2003; Torkzadeh and Dillion, 2002; Bhatnagar et al., 2000; Jasper and Ouellete, 1994) observe that the prime attribute behind high product performance risk is the consumer's inability to test the product physically. The level of communicational risk associated with the online product's performance might depend upon the type of product. For example, an online consumer might feel less risk when purchasing standardized items such as computers, records or electronic products, but might feel high risk when purchasing un-standardized items such as the latest fashion apparel offering a particular feel, fit, color or fabric (Forsythe et al., 2006).

The definition of product performance risk can differ according to its context (Dabhade, 2008). For example, in the context of traditional product performance, scholars (i.e., Jacoby and Kaplan, 1972) use "physical risk" as a term to refer to injury or health hazard to the human physical structure. On the other hand, in online product performance, scholars (i.e., Dabhade, 2008) use terms such as product functioning error risk. Moreover, few recent scholars (i.e. Forsythe et al., 2006) define service-related risks, such as an unsatisfactory product return policy.

Bhatnagar et al. (2004) note a few other risks in online product performance, such as product complexity and product quality. In fact, product quality was observed to be the most common perceived risk in this regard by several other scholars (i.e. Hong and Cha, 2013; Hong and Yi, 2012; Naiyi, 2004; Corbitt et al., 2003). In the context of product complexity, scholars have different points of view. For example, Hong and Cha (2013); Suresh and Shashikala (2011) argue that online products carry complexity risk in terms of potential differences in appearance, whereas Akram (2008); Dabhade (2008) Hassan et al. (2006) argue in terms of differences in size. Akram (2008) argues that online products carry complexity risks in terms of potential differences in color. Therefore, an online consumer might feel the risk of receiving a product that is different in appearance, color or size than that advertised on the website.

Several other risks linked to product performance are also discussed by scholars. For example, Hong and Yi, 2012; Naiyi (2004) note that an online advertised product could represent a fake brand. Initially, a consumer might be encouraged to purchase a fake product due to a low price, but the ultimate effect of such a transaction might lead to a higher perception of risk in the broader context of online shopping. Besides fake brand risk, consumers

might feel it is risky to shop online when they cannot feel and touch the product at the time of purchase (Akram, 2008; Dabhade, 2008; Hassan et al., 2006). Such risk is greater in purchases of apparel such as t-shirts, jeans, trousers, etc. Nevertheless, such risks can be reduced through increased experience of online purchasing by Internet users (Bhatnagar and Ghose, 2004).

Table 2: Summary of Items of Perceived Performance Risk

Author(s)	Aspects or Items									
	Lower in quality than that advertised	Different in appearance than that the picture shown	Different in size than that advertised	Different in color than that advertised	Different in functioning than that advertised	Fake brand	Unsatisfied product return policy	Inability of product feel	Inability of product touch	Inconsistent to self-expectation
Hong and Cha, 2013	√	√								
Hong and Yi, 2012	√				√	√				
Suresh and Shashikala, 2011		√								
Akram, 2008			√	√				√	√	
Dabhade, 2008			√					√	√	
Forsythe et al., 2006		√	√					√	√	√
Hassan et al., 2006			√					√	√	
Naiyi, 2004	√						√			√
Torkzadeh, 2003								√	√	
Corbitt et al., 2003	√									
Bhatnagar et al., 2000								√	√	
Jasper et al., 1994								√	√	

In Table 2, the product performance risk factors are summarized. From the table, it is evidenced that various factors play a major role in the past literature (i.e., low product quality, differences in product appearance, differences in product size, inability to touch/feel products, and inconsistent product performance). On the other hand, various product performance risk factors make a minor contribution in the literature (e.g., differences in color, difference in functioning, fake brands, and unsatisfactory product return policies). For this study, the researcher decided to relate these factors for several reasons: First, in terms of examining the theoretical relationship between perceived performance risk and trust, some factors in Table 2 were found to be related in the past studies. For example, Hong and Cha (2013) used two risk factors in this regard (low product quality and differences in product appearance). In their study, empirical data was applied in an online survey of 206 undergraduate students at a Korean university. The study proposed that online consumer's perceived performance risk negatively influenced trust. Thus, enough support exists to relate these factors to the current study based on past study evidence. Second, in terms of examining the theoretical relationship between perceived performance risk and purchase intention, various factors in Table 2 were found to be used in past studies. For example, Akram (2008) measured four risk factors (difference in product size, difference in product color, inability of product feel and inability of product touch) in his study of 245 French online participants. His work proposed that a consumer's perception of risk does influence their online purchase intentions. Final, to review, in terms of examining the theoretical relationship among perceived performance risk, trust and purchase intention, there are a few factors discussed in Table 2 (i.e., inconsistent product performance, unsatisfied product return policy) but not found in the literature, probably due to their minor contributions. Nevertheless, the researcher found these factors as useful to relate as a contribution to the body of knowledge.

Financial Risk

The consumer's risk of losing money during a transaction is mainly linked to financial risk (Lee et al., 2001; Fram and Grady, 1997). Suresh and Shashikala (2011) and Bhatnagar et al. (2000) observe that, in comparison to in-store purchasing, financial risk is more common in Internet purchasing. This is perhaps due to increasing consumer concerns about credit card fraud (Forsythe et al., 2006; Lee et al., 2001). As noted by Forsythe et al. (2006), consumers feel hesitant to communicate their credit card information on the Internet and usually limit themselves as website visitors. Other scholars (Suresh and Shashikala, 2011; Dabhade, 2008; Forsythe et al., 2006; Naiyi, 2004) associate financial risk with several other factors such as lack of trust in websites, fear of buying the wrong product by mistake, their credit card being over-charged, not receiving the correct product, and the lack of a money-back guarantee.

Several recent scholars (i.e. Hong and Cha, 2013; Dabhade, 2008; Akram, 2008; Hassan et al., 2006) observe one other financial risk linked to online consumers: high product prices. This risk factor can be assigned to several related concerns. For example, a consumer might feel that a web vendor is charging a hidden fee to him or her. Such feelings of risk can be more common when communicating services on the Internet (e.g., online tutor services, online vending consultancy services, etc.). At the time of the online transaction, the communicate orders as per the listed price. However, as the service process proceeds, the web vendors might

claim various other transaction-related payments or charges through notifications such as 'delivery process will stay blocked until the client pay further'. In fact, the web vendor might also collect the payment directly from the customer's bank account, as they already know the credit card number (since it was provided at the time of the initial transaction). Therefore, the client might have to deal with an emotional blackmail situation, which can ultimately lead him or her to become less interested in purchasing online in the future.

Naiyi (2004) noted other financial risk factors linked to online consumers. First, many consumers claim that online retail stores usually provide smaller discounts on products compared to traditional retail stores. Such claims can be attributed to the fact that in traditional retail stores, consumers can conveniently communicate the cost of a product, whereas online retail stores usually don't provide the possibility of negotiation. Secondly, many consumers claim that online products are overpriced when combined with the delivery fee. Such claims become more valid if the product is ordered online and shipped to another country. For example, a consumer communicating a product online might face unexpected receiving charges, such as customs duties.

The above financial risk factors are summarized in Table 3. It is evident from the table that the risk of credit-card number theft is the most discussed factor by scholars (i.e. Suresh and Shashikala, 2011; Akram, 2008; Dabhade, 2008; Forsythe et al., 2006; Lee et al., 2001; Fram and Grady, 1997; Bhatnagar et al., 2000). Other major financial risk factors include high prices in comparison to traditional retail store prices (Hong and Cha, 2013; Akram, 2008; Corbitt et al., 2003); hidden fees (Suresh and Shashikala, 2011; Akram, 2008; Hassan et al., 2006); product delivery loss (Dabhade, 2008; Forsythe et al., 2006), no money back guarantee (Suresh and Shashikala, 2011; Forsythe et al., 2006); and wrong purchases (Dabhade, 2008; Hassan et al., 2006). Table 3 shows financial risk factors that have made a minor contribution in the literature, such as smaller discounts in comparison to traditional retail stores (Naiyi, 2004); excessive fees for product delivery (Naiyi, 2004); and sales fraud (Hong and Cha, 2013). In this study, the researcher relate these factors for several reasons: First, in terms of examining the theoretical relationship between perceived financial risk and trust, three factors (i.e. high price, sales fraud and monetary loss) in Table 3 were found to be used by Hong and Cha (2013) in their study. Moreover, Thaw and Mahmood (2009) related credit-card number theft as a financial risk factor in their study of 222 Malaysian online participants. Both studies found that consumer trust is negatively associated with perceived financial risk in online transactions. Second, in terms of examining the theoretical relationship between perceived financial risk and purchase intention, some factors in Table 3 were found to be related in past studies. For example, Aghekyan-Simonian et al. (2012) used two risk factors (credit card number loss and monetary loss) in their study of 875 female American college students. Akram (2008) used three financial risk factors in his study (credit card number theft, high price, and hidden charges). Both studies propose that consumer perception of financial risk influences online purchase intention. Finally, few of the factors (sales fraud, wrong purchase) in Table 3 were not found in the past literature to relate with the theoretical relationship between perceived financial risk, trust and purchase intention. Nevertheless, in terms of contribution to existing knowledge body, the researcher decided to relate these factors with the current study.

Table 3: Summary of Items of Perceived Financial Risk

Author(s)	Aspects or Items											
	Credit card number loss	High price in comparison to traditional stores	Low discount in comparison to traditional stores	Product delivery loss	Over-charged fee on online payment	Over-charged fee for product delivery	Sales fraud	Monetary loss	Hidden fee charges	No money back guarantee	Error-based purchase	Wrong purchase
Hong and Cha, 2013		√					√	√				
Suresh and Shashikala, 2011	√								√	√		
Akram, 2008	√	√							√			
Dabhade, 2008	√			√							√	√
Forsythe et al., 2006	√			√						√	√	√
Hassan et al., 2006	√								√			
Naiyi, 2004			√		√	√		√				
Corbitt et al., 2003		√										
Lee et al., 2001	√											
Bhatnagar et al., 2000	√											
Fram and Grady, 1997	√											

Psychological Risk

The mental stress or dissatisfaction caused to a consumer while communicating a purchase is mainly linked to psychological risk (Jacoby and Kaplan, 1972). In the online context, the application of psychological risk reflects a consumer's frustrations around communicating a transaction (Dabhade, 2008). Such frustration can be caused by transaction delays, unclear direction in web orders, rejection of requests for specific product features, impreciseness to personal image, unpleasant shopping experiences and social isolation (Hong and Cha, 2013; Hong and Yi, 2012; Suresh and Shashikala, 2012; Dabhade, 2008; Forsythe and Shi, 2003).

Unnecessary tension (Suresh and Shashikala, 2011; Akram, 2008; Hassan et al., 2006) is another feature of perceived psychological risk in online purchasing. Such risk is found to be more common among consumers who have less Internet experience. For that reason, these consumers usually find websites complicated to use. These consumers are likely to suffer psychological discomfort (Akram, 2008; Hassan et al., 2006) and frustration over not reaching their buying goal (Hong and Cha, 2013). For example, an online consumer, when communicating a transaction, might not be able to understand product descriptions due to a shortage of experience on the Internet. Such online consumers might also neglect to use a web vendor's chat or messaging portal. Consequently, the transaction process becomes uncomfortable, making the online consumer frustrated or even disappointed over not achieving his or her buying goal.

Hong and Yi (2012) and Suresh and Shashikala (2011) noticed that few consumers perceive online purchasing as risky as compared to traditional shopping due to their mental or physical health. For example, a color-blind consumer might not prefer online purchasing. On the other hand, a consumer with a skull injury might not prefer online purchasing due to physical concerns. Such risk features seem to be low in terms of intensity, as modern information and communication technology includes various safety tools that can protect users from such hazards. However, cases like 'electric battery charger burn outs' cannot be completely ignored, especially in the hot-weather locations.

In one recent study, Hong and Cha (2013) noticed that online consumers might perceive risk in low-grade products offered to them through websites. On eBay, for example, consumers are often offered the same product at various prices, yet each online seller claims that they offer a genuine brand. Meanwhile, online sellers occasionally offer a product at a low price nowhere near the manufacturer's actual price list. While claiming their brand's originality, web vendors practice is to sell low-class products. Consequently, such practices lead to an intense perception of psychological risk in some consumers (Dabhade, 2008).

Table 4 summarizes this section by reviewing the factors of online consumers' perceived psychological risk. The major scholarly contribution in this regard was found to be the risk of imprecise fit to self-image (Hong and Cha, 2013; Suresh and Shashikala, 2011; Corbitt et al., 2003; Forsyth and Shi, 2003). Other major psychological risk factors include unpleasant purchase experiences and social isolation (Akram, 2008; Hassan et al., 2006; Forsyth and Shi, 2003). Table 4 shows several minor contributions as well (e.g., mental and physical illness (Hong and Yi, 2012; Suresh and Shashikala, 2011); specified feature request denials (Hong and Yi, 2012; Forsyth and Shi, 2003); and low-grade product offers (Hong and Cha, 2013). The researcher related these factors in the current study based on given reasons: First, several past studies have related the factors in Table 4 to the theoretical relationship between perceived psychological risk and trust. For example, in one recent study, Amin and Mahasan (2014) used four psychological risk factors (psychological discomfort, unpleasant purchasing experience, health risk and imprecise to self-image). In another recent study, *personal information loss* was used by Thaw and Mahmood (2009). Both studies suggest that there is a significant negative relationship between perceived psychological risk and trust. Second, in terms of examining the theoretical relationship between perceived financial risk and purchase intention, several factors

Table 4: Summary of Items of Perceived Psychological Risk

Author(s)	Aspects or Items										
	Imprecise fit to self-image	Specified feature request deny	Low class offered product	Unpleasant e-shopping experience	Psychological uncomfoting	Unnecessary tension	Too much social isolation	Low level internet usage skills	Mental illness while using internet	Physical illness while using internet	Disappointment from the frustration of not achieving a buying goal
Arslan et al., 2013	√				√						
Hong and Cha, 2013	√		√								√
Yap et al., 2012			√								
Hong and Yi, 2012		√						√	√		
Suresh and Shashikala, 2011	√							√	√		
Akram, 2008				√	√		√				
Hassan et al., 2006				√	√		√				
Corbitt et al., 2003	√										
Forsythe and Shi, 2003	√	√		√			√				

in Table 4 have been found to relate in past studies. These include loss of personal information (Dai et al., 2014; Zhang et al., 2012); social isolation (Akram, 2008); psychological discomfort (Akram, 2008; unpleasant purchasing experience (Akram, 2008); health risk (Zhang et al., 2012); unnecessary tension (Dai et al., 2014) and imprecise to self-image (Zhang et al., 2012). All the studies propose that a consumer's perception of given risk factors risk influence their online purchase intention. Final, to review, in terms of examining the theoretical relationships among perceived psychological risk, trust and purchase intention, there are a few factors in Table 4 (i.e. low class offered products) that were not found to be related in the literature. Nevertheless, the researcher found these factors useful to relate in the current study in terms of his contribution to the body of knowledge.

Time Loss Risk

The associated danger of time loss during a purchase related communication process is linked to perceived time risk (Roselius, 1971). In the online context, time risk can refer to the time

taken to navigate, browse and communicate on the Internet (Nepomuceno et al., 2013; Hong and Yi, 2012; Forsythe et al., 2006; Naiyi, 2004; Forsythe and Shi, 2003). Time loss can be caused by slow downloads, especially for high-resolution images (Forsythe et al., 2006). Time loss can also occur due to a website's low functional attributes, such as site design, ease of navigation and submitting product orders. Hence, the consumer's time risk evaluation can be biased by a favorable image and functionality of a website. In a traditional retail store environment, a store's image has been found to reduce time risk (Dabhade, 2008; Roselius, 1971); likewise, the image of an online store or website should relieve the effects of such risk (Dabhade, 2008).

Several scholars (i.e. Hong and Yi, 2012; Suresh and Shashikala, 2011; Dabhade, 2008; Corbitt et al., 2003) believe that time uncertainty about product delivery is another perceived risk for online consumers. The strength of this risk is mainly attributed to the postal services of a specific country. Online consumers might be wary in countries where national postage service is either slow or infrequent. The communication process becomes riskier if the online product return ratio is higher in those countries (Akram, 2008; Dabhade, 2008; Hassan et al., 2006). Therefore, most consumers prefer traditional store purchasing due high uncertainty that a web vendor will delivered a product within the promised time (Hassan et al., 2006).

The factors related to perceived time loss risk are summarized in Table 5. As seen in the table, various factors play a major role in the literature. These factors are: time taken for information searches (Hong and Cha, 2013; Hong and Yi, 2012; Forsythe et al., 2006; Littler and Melanthiou, 2006; Naiyi, 2004; Forsythe and Shi, 2003); uncertainty about delivery time (Hong and Yi, 2012; Suresh and Shashikala, 2011; Dabhade, 2008; Corbitt et al., 2003); time taken to search for an appropriate online merchant (Dabhade, 2008; Forsythe et al., 2006; Forsythe and Shi, 2003); and lengthy or complex return procedures (Akram, 2008; Dabhade, 2008; Hassan et al., 2006). In Table 5, various factors (*over-long communication processes, lengthy payment procedures, time losses due to system fluctuations, and overlong withdrawal times*) play a minor role in the literature but are included in the current study for the following reasons: First, the factors discussed in Table 5 have been related by several past researchers to the theoretical relationship between perceived time loss risk and trust. For example, two time-loss risk factors (taking too long to search for information and over-long purchase return procedures) are related by Amin and Mahasan (2014). In addition, two time loss risk factors (too long to search for information and over-long communication processes) are used by Hong and Cha (2013).

Both studies found a significant negative relationship between perceived time loss risk and trust. Second, in past studies, various factors were found to relate to the theoretical relationship between perceived time loss risk and purchase intention. For example, Masoud (2013) relates four risk factors (*too long to search for information, uncertainty over delivery time, overlong purchase return procedures, and time loss due to system fluctuations*). Aghekyan-Simonian et al. (2012) used one other factor: time-consuming searches to find appropriate online vendor. Zhang et al. (2012) related an additional factor (over-long withdrawal time). All of these studies propose that consumers' perceptions of time loss risk influence their online purchase intentions. Final, in past studies, some factors in Table 5 were not found to relate to the theoretical relationship between perceived time loss risk and purchase intention. These factors are: over-long communication processes, and lengthy

Table 5: Summary of Items of Perceived Time Loss Risk

Author(s)	Aspects or Items							
	Too long to search for appropriate web vendor	Too long to search the information	Too long communication process	Too long payment procedure	Uncertainty of the delivery time	Time loss due to system fluctuations	Over long purchase return procedure	Over long withdraw time
Hong and Cha, 2013		√	√					
Aliyu et al. (2012)	√							
Hong and Yi, 2012		√		√	√			√
Suresh and Shashikala, 2011					√			
Akram, 2008							√	
Dabhade, 2008	√				√		√	
Forsythe et al., 2006	√	√				√		
Hassan et al., 2006							√	
Naiyi, 2004		√						
Corbitt et al., 2003					√			
Forsythe and Shi, 2003	√	√						

payment procedures. Nevertheless, the researcher found these factors useful to relate in the current study in terms of his contribution to the body of knowledge.

CONCLUSION

Recently, more and more businesses have continued to communicate through Internet to conduct an efficient online transactional environment for their consumers. Such an environment enables consumers to break down all communication barriers, and make convenient shopping available to them 24/7. As a result, both increases in online sales and increases in the number of consumers suggest steady e-business growth. Such steadiness is driven through the enhancement of web-based networks and low transactional expenditures. Nevertheless, the consumers' perception of online purchase risks remains an obstacle to global

e-business growth. In such context, it is reasonable to assert those global web vendors' efforts to lessen certain types of communicational risks such as performance, financial, psychological and time will improve consumers' intentions to purchase online.

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