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ONLINE CUSTOMER SHOPPING BEHAVIOUR: THE MEDIATING ROLE OF ONLINE PERCEIVED RISK

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ABSTRACT

The studies of online purchase intention have been done extensively throughout the world by testing many predictors. Due to the rapid growth of technological advances affecting internet users suggest other new predictors considered as an online purchase intention element. This study suggests customer review, online store image, and perceived online risk (an element of a mediating factor) as three main variables that drive customers to purchase online. A simple convenience sampling method was used to analyse the responses from online users via the online questionnaire web surveys. Multiple regressions and Sobel tests were used in this study to test the hypotheses. The result shows that online customer review and online store image have a positive relationship with the perceived risk online as well as perceived risk itself also has a positive relationship with online purchase intention. Consequently, in terms of mediating factors, perceived risk online is seen as a mediator for both online customer review and online store image with online purchase intention. Having said that, the study hopes that the findings would help boost the online retail industry as a contributor to the country's economic development.

Keywords: Online customer review, online store image, online purchase intention, online perceived risk.

INTRODUCTION

Traditional shopping is time consuming if the consumer cannot decide what to buy. Instead, online shopping is a facility that allows consumers to shop anytime and anywhere. Traditional approaches are identified to rely on word of mouth (WOM) among customers who are satisfied to influence prospective buyers. With that, shop owners will invest in improving their storefront image in terms of decor, appearance, maintaining good relationships with customers, and welcoming buyers to buy from their store. Now, when more customers opt for online shopping, researchers find it interesting to investigate on how the electronic word of mouth (e-WOM), also known as customer reviews and online store images, affects customers' intentions to shop online (Luo, Ba & Zhang 2012; King, Racherla & Bush 2014; Matute, Polo-Redondo, & Utrillas 2016; Hussain., Guangju, Muhammad, Ilyas, Mustafa & Jianzhou 2018).

Previously, empirical studies (Wu, Lee, Fu & Wang, 2014; Hasan 2016; Wu, Ke & Nguyen 2018) have identified through tested customer surveys, images of online stores have influenced online shopping behaviour among customers, but there is a gap in reviewing the effect of customer reviews and online store images. This study investigates further the impact of customer reviews on online store images and the best online store image effects in affecting customers to write reviews. In addition, customer perceptions about online shopping safety also tend to affect their desire to purchase online because they are terrified of the risks that they may face in the online shopping process and this may affect the intent of their purchase. The level of customer confidence to engage in online shopping takes place when there are security and reliability of the transaction through the web and it is called a transaction risk (Bianchi & Andrews, 2012). Concerns about privacy and security are among the key factors that influence the level of trust and confidence of consumers in online shopping as they seek protection against the risk of misuse of personal information, financial loss or fraudulent activities. Therefore, the study also examines the role of online perceived risk as mediation in the online shopping process.

This study uses a Theory of Planned Behaviour (TPB) that has been developed from the theory of reasoned action (TRA) introduced by Fieshbein and Ajzen (1975). Eventually, Pavlou and Fygenson (2006) examined the use of e-commerce users using TPB and the results showed that TPB predicted the attitude and behaviour of users. Thus, this study is designed to examine the relationship between the two variables discussed; online customer reviews and online store images in identifying the intentions to buy online mediated by the online perceived risk and is expected to explain what encourages Malaysian customers to buy.

LITERATURE REVIEW

Online Customer Review (OCR)

Word of mouth (WOM) has been widely identified as a source of non-commercial and reliable information that has a significant influence on the creation of a consumer attitude and purchase behaviour. Consumers require social interactions, economic incentives, and value-enhancing self-esteem as the major drivers of eWOM engagement (Hussaina et al., 2018). With the rapid growth of the internet, online customer review or also known as eWOM has appeared as a mode for consumers to involve in noncommercial advertising, sharing and discussing a personal involvement on products and certain brands. It provides important information to influence other people's purchasing decisions (Zhang, Cheung, & Lee, 2014). eWOM is a medium of communication among the customers amplifying the value of customer perceptions and customer loyalty intentions toward the marketer's online products.

Typically, retailers ask customers who have used a product or service to rate it in the form of text (for example, a statement form) or give a rating in the form of figures such as star ratings on the retailer's website. The customer review functions are divided into two; first, the review provides product/service information and secondly, the survey leads to suggestions from an experienced customer's perspective. Written reviews offer more informative information as it describes emotions, feelings and facts to readers, while numeric reviews appear in standardized scales and coded assessments (Hu, Koh, & Reddy, 2014). Since customers provide non-coercion or pressured reviews from the seller, therefore, the reviews are purer, sincere, have greater credibility value, more easily associated with and more likely to arouse customer's buying intention. To and Ho (2014), Jimenez and Mendoza (2013) and Maxham (2001) were among researchers who had tested the positive impact of customer surveys on online buying behaviour. eWOM and purchase intentions are found to be important, which suggests that social media interactions among clients generate eWOM that affect the intent of consumer purchases. Zhang and Hanks (2018) identified that with positive eWOM, products will be more informative and because of that, consumers will portray more positive, encouraging attitudes and purchasing intention. Significantly, positive eWOM influences positive attitudes towards the products (Tata, Prashar & Gupta 2019). Kunja and GVRK (2018) specified that interactions of the social media amongst the customers generate a constructive link between eWOM and consumers' purchase intention. Similarly, study done by Arif (2019), pointed out that eWOM and brand images are noticeable and positively affect the intent of customers' purchases. Likewise, Gruena, Talai, Osmonbekov and Czaplewskia (2006), suggested that customers realize the effects of eWOM on the customers' view of the product values and the likelihood to recommend the product, but does not affect the intention of consumer buying behaviour. Zhu, Li, Wang, He and Tian (2020) discovered that quality information from positive online surveys has a more significant effect on online purchase intentions.

Online Store Image (OSI)

Store image is defined as a brand name set associated with a store in the user's memory. An online store image functions as a collective diversity or component making of a store image (Van der Heijden & Verhagen, 2004). Studies have been conducted to examine the relationship between the store image and the customer's intention to purchase. Consumers are considered at risk when they shop at an online store as compared to shopping at conventional stores (Zheng, Favier, Huang, & Coat, 2012). Therefore, consumers choose to shop at conventional stores instead of online stores. Aghekyan-Simonian, Forsythe, Kwon and Chattaraman (2012) concluded that shop images have been certified to reduce the financial risk in both clothing items for the brick and mortar store environment and online shopping. One of the recommendations suggests that an online business entity should have a distinct set of components as a way for customers to recognize that virtual store businesses are completely different from each other (Verhagen & van Dolen, 2009). The consequences of positive online store image are able to foster the senses of usefulness, enjoyment, ease-of-use, trust, familiarity and settlement performance from online retailers (Chen & Teng, 2013). Online store image components include online store use, online store fun, online usage facility, online store style, online store understanding, online store trusts, and online shop solutions (Van der Heijden & Verhagen, 2004). Past researchers have empirically tested the important and positive relationships between store images and online purchase intention (Aghekyan-Simonian et al., 2012; Verhagen & van Dolen, 2009; and Van der Heijden & Verhagen, 2004). A constructive image of online stores is important for store sellers as it creates a sense of safe and secure when consumers shop based on favorable online store images (Akroush & Al-Debei, 2015). Furthermore, a dazzling technique of positive word-of mouth will generate positive online store image (Zheng et al., 2012).

Online Perceived Risk (OPR)

Perceived risk is the individual subjective faith about possible harmful effect from the purchase decision or behaviour which cannot be forecasted with assurance (Diallo, 2012). It is also a consumer's expectation of the loss to be incurred. During the shopping process, consumers are overwhelmed by the perceived risk and consumers' behaviour for online shopping is influenced by their willingness to bear the risks that may occur during the closing of any transaction made on the web. Online risk is a situation where users need to be confident with the technology involved to begin the task of finding and buying what they seek (Bianchi & Andrews, 2011). In order to reduce their hesitation and risks related with their shopping options, consumers depend on the risk reducing signals such as good brands or store reputations (Aghekyan-Simonian et al., 2012). Additionally, the risks in online transactions are likely to arise from the inability of users to examine and compare product quality and provide personal information that needs to be uploaded on the web (D'Alessandro, Girardi & Tiangsoongnern, 2012) To make online purchases, among the major factors affecting the behaviour of users to engage them are safety and privacy concerns (Komiak & Benbasat, 2004).

Privacy is identified as protecting user information from being infringed or being accessed by other users, systems or networks while security is described as a situation that guarantees or makes security, protection, guard or defend (Kim, 2005). In term of consumer behaviour in online shopping, privacy concerns will be more geared towards factors such as personal detail, credit card and bank account numbers or other related information that may be misused by third parties. Any attempt to misuse this information can cause an unpleasant feeling thus reducing the level of consumer confidence in online shopping services. The higher the risk perception that consumers encounter, there are less chances for them to proceed with their purchase decisions. Tanadi, Samadi and Gharleghi (2015) argued probable cause of bad decisions made by making purchases in online shopping can make consumers feel uncomfortable and would reduce the level of consumer confidence to shop online.

Online purchase intentions (OPI)

Consumer purchase intention denotes the effort to purchase goods or service. Grewal, Krishnan, Baker and Borin (1998) purported that purchase intention is a commonly used predictor of subsequent buying and it supports the tie among purchase intention and store image The intention to purchase online is the major consequence of various online shopping context factors (Ling, Chai & Piew, 2010). Pappas (2016) stated that the trust between online retailers and consumers is very important as these relationships can drive purchasing intentions. In addition, Pappas (2016) concluded that intention is often recognised as an end-user buying behavior to purchase online, therefore, it is vital for retailers to comprehend its importance.

Users who choose online purchases will expect to enjoy more online environments than physical environments (Lin, 2011). Among other factors of online purchases being preferred are the ease of use and usefulness (Childers, Carr, Peck & Carson 2001). Widely around the world, studies have been conducted on purchase intention tested for many predictions. However, due to the rapid development of technology that affects internet users, new predictors need to be considered as elements of online purchase intentions. This study suggests customer reviews and online image are regarded as the key advances to clarify customers' motivation to buy online together with online perceived risks as the mediating factor. Twenty years ago, Li, Kuo and Russell, (1999) reviewed demographic factors such as age, gender and education regarding the use of online purchase customers. In fact, an earlier online purchase experience has also been recognized as having a significant effect on the purchase intention in the Western context (Shim, Gehrt & Lotz, 2001). Ling et al. (2010) argued that the important outcomes of shopping orientation through online purchase intentions do not only occur in the West, but also in other parts of the world such as Malaysia.

Relationship between OCR and OPR

Due to the uncertainty of seller behaviour or risk of losing personal information through hacker attacks, users often hesitate on transactions with online sellers (McKnight, Choudhury & Kacmar, 2002). Therefore, in helping users conquer the risks and uncertainties they perceived, trust indicates a crucial function. Consequently, Dhanasobhon, Chen and Smith (2007) conducted a research on online transactions, it is discovered that an online assessment message helps consumers to make purchase decisions. eWOM proposes users a useful and handy means in making assessment and lessen the risk (Gellerstedt & Arvemo, 2019). Hence, the online customer reviews or electronic words from the mouth (eWOM) are very important to consumers before they decide to buy online due to the risks they will bear. Such risks will generally affect the user's trust behaviour. If users feel more at risk, they will ask more questions or request for further information to confirm the details in the eWOM. But if users feel that the risk that they are facing are low, then their readiness to purchase goods or services will be higher.

The understanding on online behaviour of the eWOM's positive and negative impact can benefit marketers in their quest to market and sell their products online. The perceived risk is a blend of consumer result on their buying decisions and readiness to receive possible consequences. Hussain et al., (2018) and Liang (2015) pointed out that the eWOM has a positive influence on the perceived risk based on their study of electronic oral communication and understanding repurchase intention.

Relationship Between OSI and OPR

When shopping online, the inability to examine the products would increase the perceived risk as consumers are unable to use their five senses before purchasing. Therefore, online store image plays the role in how the users evaluate the store founded on its practical potentials and environmental features. Online store image can be determined by user images based on website design and functionality, product or service and how communication occurs between online retailers and online users (Akroush & Al-Debei, 2015). According to Tan (1999), to reduce perceived risk when purchasing online, the online customers tend to purchase famous brand name products from famous portal webs. Thus, it can be concluded that in order to reduce perceived risk, the product brand image and online store image play an important role. Meanwhile, perceived risk consists of two uncertain support factors and negative results (Cocx & Rich, 1964) and the result of consumer's bad feelings or difficulties due to online shopping activity (Ariff, Sylvester, Zakuan, Ismail & Ali, 2014; Hong, Zulkiffli & Hamsani, 2016).

Relationship Between OPR and OPI

The consumer buys online shopping behaviour, including the perception of risk, has become a significant research topic since the growth of the internet with the world popularity of online shopping increased by 44.3% in 2017 (Saleh, 2017) and it is the third most favoured internet activity (Li & Zhang, 2002). Studies identified that purchasing product online always make consumer feel uneasy due to the risk that they might encounter. In fact, consumers continue to feel that using the internet to buy is risky (McCole, Ramsey, & Williams, 2010; Bianchi & Andrews, 2012). Risk means there will be a chance that the actual results will differ from what is expected (Athearn, 1971). Hence, the perceived risk that is strongly considered in interpreting customer behaviour and the unwillingness of consumers to buy online can be considered as a direct impact of the perceived risk (Gerber, Ward & Goedhals, 2014). Van der Heijden, Verhagen and Creemers (2003), discovered that perceived risk has a negative impact on consumers' attitude or intention to purchase online. Similarly, Zhang, Tan, Xu and Tan (2012), Masoud (2013), and Ariff et al., (2014) identified that the intention to shop online were affected by perceived risk. As expected, the greater the perceived risk, the lower the online

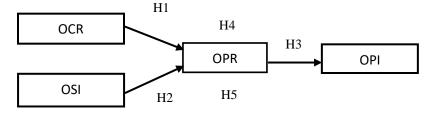purchase intention. Thus, perceived risk has an extreme potential to influence consumers' purchase intention.

Mediating Effect of OPR between OCR and OPI

Pavlou and Fygenson (2006) discovered that online transactions are the relationship between intention and behaviour that assume people are trying to make rational decisions based on existing information (eWOM for example). Customers who choose an online website to shop depend on what the previous user-generated content called reviews to make a purchase decision each time. Basically, customers' intentions to buy online rely on previous reviews or eWOM results. Users feel less confident and threatened with online stores because two-way communication does not exist, and they depend solely on the eWOM. Therefore, eWOM becomes an important guiding tool for online shoppers to shop online (Roy, Datta & Basu 2017). Kim, Ferrin and Rao (2008) examined how trust and risks influence the purchasing decisions of internet users, and it is concluded that among the variables reviewed, perceived risk and website information have a strong impact on purchase decisions. Finding a referral through eWOM is part of the level of information retrieval in the purchasing decision process and based on perceived risk theory; eWOM lowers the perceived risk, hence drives online purchase intention (Indiani, Rahyuda, Yasa & Sukaatmadja 2015). eWOM is one of the most influential ways to decrease consumers' perceived risk by providing advice from the online community when consumers shop online (Praharjo & Kusumawati, 2016).

Mediating Effect of OPR between OSI and OPI

Online store image has the ability to influence purchase intention indirectly by reducing risk perceptions (Aghekyan-Simonian et al., 2012; Hong et al., 2019a). Jarvenpaa and Tractinsky (1999) signified that online buying intentions and online perceived risk show a negative relationship between one another. Clearly, the higher the connection between the perceived risk and the online store, it would result in lower intentions to buy from that online stores. To increase higher purchasing opportunities, product brand image and store image are the solution (Derbaix, 1983). As a result, the perceived risk is detected as a mediating variable between the brand and the store image and purchase intentions. Based on this thought and together with the findings of empirical studies from Agarwal and Teas (2001, 2004), this study expects that perceived risk does play a mediating role between store image and purchase intentions. Having the backdrop discussion, the study hypothesizes that:

H1: There is a significant relationship between OCR and OPR
H2: There is a significant relationship between OSI and OPR
H3: There is a significant relationship between OPR and OPI
H4: OPR mediates the relationship between OCR and OPI
H5: OPR mediates the relationship between OSI and OPI

OCR - Online Customer Review; OSI - Online Store Image.
OPR - Online Perceived Risk; OPI - Online purchase intentions

Figure 1: *Framework of the study*

METHODOLOGY

Measures

Using a quantitative approach, this study was conducted on online users using self-reported survey questionnaires designed and published on the web survey. An invitation letter along with the hyperlink to the website of the questionnaire were sent to the potential respondents via email for them to fill up the questionnaire on the web survey. The data covered all over peninsular Malaysia using the convenience sampling method. All the measurements used in this study were adopted and/or adapted from previous studies. Data was collected using self-administered questionnaires. 29 items were adapted from established instruments and were operationalized using 7-point Likert scales, ranging from 1=strongly disagree to 7=strongly agree.

Measurements for online image were from ven der Heidjen and Verhagen (2004) with 7 items, customer review from Hennig-Thurau, Gwinner, Walsh and Gremler (2004) with 11 items, online perceived risk from Andrews, Kiel, Drennan, Boyle and Werawardeena (2007) with 6 items, adapted from Jarvenpaa and Tractinsky (1999), and online purchase intentions with 5 items were from Zhang, Cheung and Lee (2014) and ven der Heidjen and Verhagen (2004). Multiple regression in SPSS 26.0 and Sobel tests were used in this study to test the hypotheses with the total number of 280 respondents.

Respondent Characteristics

Table 1 demonstrates the demographic profile of the respondents by gender, age, residency, education level, occupational status and monthly income. In term of gender, the male respondents represented 22.14 percent of the total respondents, while female respondents represented 77.86 percent of the total respondents. 44.64 percent of the respondents earned monthly household incomes above RM 5,001, with 55.36 percent of households reporting income less than RM 5,000. Many respondents (72.86%) were from the mature adult age group, ranging from 30 to 40 years old, and a high proportion came from postgraduate education backgrounds (64.6%). Finally, majority of the total respondents worked full-time and lived in the urban area.

Demographic variable	Item	Frequency	Percentile
Gender	Male	62	22.14
	Female	218	77.86
Age	18-20	1	0.36
	21-23	2	0.71
	24-26	17	6.07
	27-29	43	15.36
	30-40	204	72.86
	Above 40	13	4.64
Residency	Urban	188	67.14

	Rural	92	32.86
Education Level	SPM and certificate	9	3.21
	Diploma	8	2.86
	Bachelor	31	11.07
	Master and PhD	232	82.86
Are you	Full time worker	263	93.93
	Part time worker	3	1.07
	Student	10	3.57
	Housewive	4	1.43
Monthly Income	<RM1000	6	2.14
	RM1001 - 2000	16	5.71
	RM2001 - 3000	23	8.21
	RM3001 - 4000	43	15.35
	RM4001 - 5000	67	24.00
	>RM5001	125	44.64

Factor Analysis

Factor analysis, under the extraction method of principle component analysis using the varimax rotation with Kaiser Normalization was conducted to analyse the items. The exploratory factor analysis (EFA) shows that three-factor OCR with 6 items, OI with 7 items and OPR with 3 items. Only items with loadings higher than 0.60 were retained for further analysis Thus, 8 items were deleted from 24 items all together. The entire new factors were checked for reliability: customer review (.837), online image (.918), and online perceived risk (.771). Table 1 is the EFA for all the constructs.

Table 1

Exploratory factor analysis and reliability analysis of the constructs

Construct	Item	Factor		
		1	2	3
Online Customer Review	When I buy a product online, the impact of negative online reviews on my purchasing decision is greater for expensive goods.	.845		

	If I don't read the reviews presented on the website when I buy a product online. I worry about my decision.	.769
	Other reviewer's rating of usefulness of the review affects my purchase decision.	.765
	Consistency of reviews posted on the website affects my purchase.	.764
	I believe that the product reviews on the internet are neutral (not bias).	.762
	Other reviewer's rating of usefulness of the review affects my purchase decision.	.748
Online	The website offers dependable services.	.821
Store	This website retailer is reliable.	.810
Image	The website of this online retailer keeps my best interest in the minds.	.810
	The online retailer wants to keep promises and obligation.	.781
	The online retailer is trustworthy and honest.	.777
	The website of this online retailer offers secure personal privacy	.736
	This website provides reliable information.	.676
Online Perceived	It is necessary to compare with other ways of making purchases first before getting into online transactions.	.729
Risk	It is safe to make purchases on the internet using the credit card.	.691
	Providing credit card information through the web would not matter if products provided are of a high quality.	.630

Hypotheses Testing

To test the hypotheses 1, 2 and 3, multiple regression analyses were conducted. The hypotheses described the relationship between OCR and OPR, OSI and OPR as well as OPR and OPI. The results of the regression in the first and second hypotheses indicated ($R^2 = .10$, F (1,398) = 38.72, p < .000) and ($R^2 = .33$, F (1,398) = 198.35, p < .000) respectively. It is found that both OCR and OSI have significant relationships with online perceived risk ($\beta = .30$, t = 6.22, p < .000), and ($\beta = .58$, t = 14.08, p < .000) respectively. Finally, the third hypothesis was also tested using multiple regressions that described the relationship between OPR and OPI; ($R^2 = .29$, F (1,398) = 161.68, p < .000) and ($\beta = .54$, t = 12.72, p < .000). It is found that online perceived risk has a significant relationship with online purchase intentions. Thus, based on the results, all of the hypotheses are supported.

In analysing the mediating factors as in hypothesis 4 and 5, firstly, the study needs to establish three conditions to determine whether mediation has occurred:

1. The IV predicts the DV
2. The IV predicts the mediator
3. The mediator predicts the DV

by obtaining the correlation coefficients for these three relationships. Based on Table 2, it is indicated that all three conditions are met.

Table 2

Internal consistency and correlation matrix

Construct	α	OCR	OI	OPR	OPI
Online Customer Review (OCR)	.84				
Online Image (OI)	.92	.469**			
Online Perceived Risk (OPR)	.71	.298**	.513**	.	
Online Purchase Intentions (OPI)	.93	.519**	.686**	.479**	

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

To test the mediation effect (H4 and H5), this study applied Baron and Kenny's (1986) method together with the Sobel test (Preacher and Leonardelli, 1982) as to measure the significant level of the indirect effects. The outcomes indicated that the test statistic for OCR → OPR → OPI ($t = 3.38$, $p = .000$) and OI → OPR → OPI ($t = 2.46$, $p = .01$) signified online perceived risk (the mediator) mediated both the hypotheses (Table 3). Therefore, H4 and H5 are supported.

Table 3

Mediating Effects of Perceived Risk through Customer Review and Online Image on Online purchase intentions

	t- value	p- value	Support
Hypotheses 4			
Perceived Risk through			
OCR to OPI	3.38	0.000	Mediates
Hypotheses 5			
Perceived Risk through			
OI to OPI	2.46	0.01	Mediates

RESULTS AND DISCUSSION

On average, most respondents are between the ages of 30 and 40 who are usually people with a stable income. In term of education level, most respondents have a Master or PhD degree. In addition, most respondents live in urban areas with a busy lifestyle and majority of them come from middle and high-income groups. This could indicate that their online purchase will be influenced by their socioeconomic. Contradict to a study by Hernández, Jiménez and Martín (2011), it is identified that socioeconomic characteristics do not affect online shopping. Surprisingly, Lubis (2018) indicated that among the consumers in Medan City, North Sumatera Province, Indonesia, online shopping decisions are strongly influenced by income levels but not level of education.

Based on the findings, (H1) the result discovers that online customer reviews have a significant relationship with online perceived risks. This finding is similar to the study conducted by Hussain et al., (2017) with a sample of 300 respondents and data taken through questionnaires from several provinces in the Republic of China showed that online customer reviews have a positive effect on perceived risks. In a similar way, Praharjo and Kusumawati (2016) also agreed that online customer survey is one of the most convincing methods to reduce the perceived risk of consumers by offering advice from the online community. The Internet is considered the best platform to provide information. Concomitantly, reading comments or reviews online has become a standard approach for online users to find information before making an online purchase decision. Therefore, online retailers should manage the best strategies to increase the usability of the online community, provide all company-related information, directly encourage customers to share their experiences to attract other users to purchase online.

As for H2, the relationship between online store images and online perceived risks, the result indicates that there is a significant relationship. The result of this study is similar to Hong et al., (2019b) who identified that there is a significant relationship between the image of online stores with the perceived risks among Malaysian online consumers. Van der Heijden and Verhagen (2004) and Aghekyan-Simonian et al., (2012) agreed that the factors associated with the image contribute to most online purchasing attitudes. In addition, if online images can appeal to users, they can stimulate attitudes and encourage their behavioural beliefs towards retailers and products at the same time (Chen, Ching & Tsou, 2007). Online store image becomes a prominent factor in online purchase since the inability of the consumer to sense, touch, feel or try on products before purchasing and thus, will have a significant relationship with risk perceptions.

The result of this study (H3) reveals that online perceived risk has a significant relationship with online purchase intentions. Similar to a study conducted by Gazali and Suyasa (2020) which concluded that the increased risk felt by consumers when shopping online will result in a decrease in consumer purchasing decisions for online shopping. Customers are also always concerned about the risks they may face when conducting online shopping transactions such as disclosing personal information like credit card numbers, bank accounts and so on as there are potentials of these information being stolen and manipulated by third parties. However, the level of risk can also be affected depending on the category of products purchased online and acceptance by the customer against the risk. Therefore, online shoppers with experience in online shopping would experience less risk (Huang, Schrank & Dubinsky, 2004) as compared to new shoppers, as the convenience and risk are important to them (Rezaei et al. 2014). Furthermore, according to Phornprapha and Suthatorn (2017), in term of online buying intention, it is influenced by perceptions of product value, shopping experience, and service. Meanwhile, Ventre and Kolbe (2020) concluded that perceived risk does not directly influence online purchase intention. Therefore, it can be concluded that perceived risk does not affect the intention of consumers to buy online. Regardless of the mixed results, it is a need to reduce online shopping risks where online retailers could provide detailed information about their company and their security policy

considerations to avoid cyber fraud for better e-commerce transactions. Furthermore, it is very imperative for online retailers to increase the consumers' knowledge of the products. For instance, provide a website link that offers clear and detailed information about the products. By making information about products accessible, retailers enable consumers to be better informed and can indirectly reduce perceived risks.

In examining the mediating effects of online perceived risk between online customer review on online purchase intentions (H4), the result shows that perceived risk mediates the relationship. The lesser the risk perceived by the customer through good, informative and convincing online customer reviews, it will help to decrease the risks involved in shopping online and the lower perception of risk will increase the online purchase intention. Taking a step further, Praharjo and Kusumawati (2016) discovered that perceived risk has an effect on online customer review and repurchase intention through a survey of 116 Traveloka account followers on Twitter. Online customer review is one of the most influential ways to decrease consumers' perceived risk by providing advice from the online community.

Finally, in examining the mediating effects of online perceived risk between online store image on online purchase intention (H5), the result reveals that perceived risk mediates the relationship that could enhance online shopping, which subsequently influences consumers' willingness to purchase online. The study's result is congruent with Aghekyan-Simonian et al., (2012), in which they notified perceived risk mediates the effect of store images on purchase intention in online shopping. The result suggests that having a positive online store image will decrease the perceived risk, which in turn affects consumers' intention to purchase online. Perceived risk variable was meaningful in mediating the relationship image perception and purchase intention. For example, retailers should constantly improve the style, provide more reliable information and offer secure personal privacy in gaining the customers' trust. Likewise, with more creative ways and attributes used by store retailers to maintain store image, the better effect in decreasing the risks involved in shopping. The findings indicate that perceived risk in online retailing is still the issue that is being debated. Online perceived risk has been identified to be related with online customer review and purchase intentions of customers. Simultaneously, it is also associated with store image and with customers purchase intention. Thus, the perceived risk acts as the mediating factor between online customer review and store image in encouraging customers to purchase online.

IMPLICATION, CONCLUSION AND FUTURE RESEARCH

An online perceived risk is a significant topic in discussing online purchase intentions. Communication technology advancement has made it effective for retailers to make sales and reach their customers easily. Unlike traditional physical retail strategies, digital or virtual retail on websites provide flexibility where high numbers of customers can be achieved. The presence of the internet makes it easier to shop online. Comprehending how consumer make decision to purchase online in the context of online retail is very important for all online retailers. Thus, it is imperative for online retailers to study consumer behaviour towards purchase intentions. This study investigates the relationship between online customer review and online store images in determining the intentions for online shopping. Furthermore, by studying the role of risk considered as mediator in the above relationships, this study contributes to the development of conceptual models that illustrate the relationship between online images, online customer reviews and online perceived risks that are considered mediator of online purchase intentions. Since all the hypotheses are supported and showed positive relationships, this study expects to provide important implications for the future research and practice.

This study does not only enhance in-depth understanding of customer behaviour in online shopping, it also provides an overview of existing literature on online purchases. Based on the findings, this study recognizes the following management implications. First, it informs marketers about the importance of consumer risk perceptions to be adopted as a strategy in reducing the risk that users face during the internet shopping process. In practice, conscious marketers need to intelligently act to enhance their efforts in building a dynamic and competitive online marketplace. In addition, online retailers should offer many benefits to potential customers such as cost efficiencies, flexibility, brand recovery, and wider market coverage. Therefore, to achieve a better understanding of this issue, future research can include larger sample sizes and more items on the variables. A study on the age factor between age groups and computer literacy can be highlighted for future research. In addition, this study can also be expanded by incorporating customer behaviour involved in international online purchases. However, this study is subjected to some limitations. Firstly, the survey was distributed and responded online through a web-based survey and in the early stages of the study, researchers faced the problem of getting cooperation from the respondents. Also, since a link to answer the questionnaire on the net was sent directly to the responding email there is a probability that the link was sent to recipient's inactive email address or the respondents themselves ignored the email that was sent. Thus, this led to a low response rate. In addition, the method used restricts the study from asking open-ended questions as there is no room for direct interactions. Without a proper interview session, it limits the researcher from exploring more responses and finds it a challenge to verify data permissions, thus, may lead to less reliable data. In conclusion, convenience sampling in this survey may not be appropriate because respondents are only obtained from a specific group of users. Hence, does not represent the population. Future research should consider teaming up with more online retailers to review customers online as soon as they make a purchase so the results can be more general.

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