
Online store image effect on perceived risks towards online purchasing behaviour

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Abstract: Online consumers have their own risk perception known as perceived risks. If consumers detected a variety of risks with the online purchase, consequently it will decrease the intention to shop online. The purpose of this paper is to examine the relationships between online store image towards perceived risks (financial, product-performance, time, delivery, psychological, privacy, social, and after-sale risks) and the relationship between perceived risks towards online purchasing behaviour. Data collected from 330 respondents who have experience in online purchasing suggested that online store images have influence financial, product-performance, time, psychological, social, and after-sale risks. Surprisingly, online store image has no effect on privacy and delivery risks. Meanwhile, financial, psychological, social and after-sale risks have influence on online purchasing behaviour. In other words, increased risk in product performance, financial, psychological and after-sale risks influence the online purchasing behaviour by reducing the intention to purchase the product. Therefore, online purchase platform providers, online retailers and online marketers should identify the online store image that is capable to reduce consumers' perceived risks thus leading to a positive purchasing behaviour. Additionally, consumers can gain knowledge about the risks that might be faced during online shopping activities.

Keywords: online purchasing behaviour; online store image; perceived risks.

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1 Introduction

The internet has developed into a global marketplace for marketers, retailers and consumers due to rapid expansion of communication and technologies. E-commerce relating to business-to-business and business-to-consumer has become a marketing channel that vital in business transactions for retailers and sellers. Marketers and retailers are able to sell products and to provide services to consumers within barriers of location and time. At the same time, consumers have various choices of products and services through this channel. Malaysian Communications and Multimedia Communications (2016) stated that Malaysian online consumers claimed that ease of delivery services and better price that provided by online retailers are the reasons to shop online. However, some issues deterring the Malaysian consumers from shopping online. Malaysian Communications and Multimedia Communications (2016) provided a data stated that there re declaration from 38% to 35.3% in 2014 to 2015 for online shopping usage in Malaysia. Therefore, a review from Dhanapal et al. (2015) clarified that website design, functionality, security and privacy, as well as consumers' perceived risks are the factors that affect consumers to shop online. Chen and Teng (2013) added that if online retailers are capable to create the feeling of usefulness, enjoyment, ease-of-use, trust, familiarity, and settlement performance which results in the effect of positive online store image (OSI). Aghekyan Simonian et al. (2012) stated that a positive store image is able to reduce consumers' perceived risks and thus leading to positive online purchasing behaviour (OPB). Zheng et al. (2012) stated that consumers are more concerned on the risks when doing online shopping compared to shopping at physical stores. Therefore, online retailers, online sellers and online platform providers must determine the elements that can be of major concerns to the consumers in order to dominate e-commerce marketplace. This study is to identify whether OSI is capable in influencing consumers' perceived risks and OPB among Malaysian online consumers.

2 Problem statement

One of the fears among consumers when shopping online is the inability to physically examine the products during purchasing (Ariff et al., 2014). These uncertainties result in variety of perceived risks when doing online shopping. However, these perceived risks can be reduced by the presence of OSI and lead to positive purchase intention as supported by the finding from Aghekyan Simonian et al. (2012). Chen and Teng (2013) stated that OSI that have traits of usefulness, enjoyment, ease-of-use, trust, familiarity, and settlement performance can psychologically create positive purchase intention among online consumers. Among Malaysian online consumers, financial risk (FR) is the main perceived risk associated with online shopping (Ariff et al., 2014). FR involves concern over monetary loss due to bad financial settlement security in the website (Tanadi et al., 2015). In addition, Malaysian online consumers try to avoid shopping online because the product information provided by online retailers does not reflect the actual products (Javadi et al., 2012). Therefore, Malaysian online consumers are concerned about the product performance when shopping online. Another risk that is a major concern to Malaysian online consumers is time or convenience risk (TCR) due to poor website functionality provided by online retailers (Ariff et al., 2014). Additionally, delivery risk (DR) is another perceived risk by Malaysian online consumer as the purchased products might be lost, damaged, and delivered to a wrong location (Ariff et al., 2014). Erdil (2015) suggested that privacy and psychological risks (PSY) are of major concern to Malaysian online consumers as their personal information may be misused and also due to loss of self-image resulting from bad product performance. Social risk (SR) poses the least risk as perceived by Malaysian online consumers due to prevention of loss of social status from purchased result (Morad and Raman, 2015). After-sale risk (ASR) has a great influence towards OPB as Zheng et al. (2012) claimed that online consumers in China are concerned about the after-sale service where they are unable to claim from online retailers after receiving a damaged product or a poor service. Therefore, the present study aim to create awareness among online platform providers about the importance of the OSI that can affect consumers' perceived risks and lead to a positive OPB. In a nutshell, this paper aimed to identify the relationships between OSI, consumers' perceived risks, and OPB. With the growing number of online retail sales, it is believed that online retail service will be a major choice over traditional retail based on the current world trend.

3 Research questions

This study aimed to identify whether OSI affects consumers' perceived risks resulting in consumers' OPB. Therefore, the research questions are stated below:

- 1 Does OSI influence perceived risks [FR, product-performance risk (PPR), time risk (TR), privacy risk (PR), PSY, SR, DR, and ASR]?
- 2 Does perceived risks (FR, PPR, TR, PR, PSY, SR, DR, and ASR) influence OPB?

4 Research objectives

The specific research objectives in this study are described below:

- 1 To examine the relationships between OSI and perceived risks (FR, PPR, TR, PR, PSY, SR, DR, and ASR).
- 2 To examine the relationships between perceived risks (FR, PPR, TR, PR, PSY, SR, DR, and ASR) and OPB.

5 Literature review

5.1 *Online purchasing behaviour*

Purchasing behaviour can be defined as a decision process for individuals to act in order to buy and use product. Consumers' buying behaviour can be influenced by four factors which are social, cultural, personal, and psychological as suggested by Rani (2014). The present study focuses on the psychological factors that influence the purchasing behaviour among consumers. Perception can be considered as one of the psychological factors which leading purchase decision which leads to the purchasing behaviour of individuals. According to Rani (2014), perception is a process for individuals to choose, organise, and analyse information in order to take reliable action. Rani (2014) added perception process can be divided into three types which are selective attention, selective distortion, and selective retention. The present study strongly focuses on selective attention in the perception process. This is because consumers who selective attention are sensitive towards information and more attentive depending on the stimuli or activities that individuals face in a certain environment. Based on study from Verhagen and Van Dolen (2009) stated that OSI plays important determinants to influence consumers purchase intention in online store at Netherland. Therefore, the researchers justify that OSI as external stimuli in order to relieve perceived risks that faced in online shopping activities in order to improve their purchasing result among Malaysian online consumers. Zhang et al. (2012) suggested consumers' perceived risks are normally identified as the common aspects in the business to consumers form of e-commerce. This indicates that perceived risks can be greater part of consumers' perception to determine their purchasing behaviour. Risk perception among online consumers can be minimised by positive of OSI. This can be supported by the study from Aghekyan Simonian et al. (2012) which added that OSI can be a representative of product quality which can reduce the risk perception among online consumers. In a nutshell, OPB involves consumer behaviour during online shopping including doubt, giving up, cutting down on spending and frequency as well as holding up on online purchasing due to perceived risks (Zhang et al., 2012).

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individuals to choose, organise, and analyse information in order to take reliable action. Rani (2014) added perception process can be divided into three types which are selective attention, selective distortion, and selective retention. The present study strongly focuses on selective attention in the perception process. This is because consumers who selective attention are sensitive towards information and more attentive depending on the stimuli or activities that individuals face in a certain environment. Based on study from the researchers believe that Malaysian online consumers are sensitive OSI as external stimuli in order to relieve perceived risks that faced in online shopping activities in order to improve their purchasing result. Zhang et al. (2012) suggested consumers' perceived risks are normally identified as the common aspects in the business to consumers form of e-commerce. This indicates that perceived risks can be greater part of consumers' perception to determine their purchasing behaviour. Risk perception among online consumers can be minimised by positive of OSI. This can be supported by the study from Aghekyan Simonian et al. (2012) which added that OSI can be a representative of product quality which can reduce the risk perception among online consumers. In a nutshell, OPB involves consumer behaviour during online shopping including doubt, giving up, cutting down on spending and frequency as well as holding up on online purchasing due to perceived risks (Zhang et al., 2012).

5.2 Online store image

Akroush and Al-Debei (2015) defined store image as the outcome of consumers' mindset when consumers heard the name or logo of online retailers' or online platform providers' websites. Therefore, OSI can be concluded as the outcome of the image from consumers according to physical and behavioural attributes of websites including design and its functions, products or services provided and consumer's interaction methods (Akroush and Al-Debei, 2015). However, Chen and Teng (2013) argued that OSI is only formed by online stores' properties and functionality contributing to psychological effects. The psychological factors consist of the image of usefulness, enjoyment, ease-of-use, familiarity, and trust as well as settlement performance. As a result, online retailers provide high-quality image with an innovative offer on the visual of the products, captivating website layout, detailed description of services or products, information on product functionality and excellent online transactions. Positive psychological store image can be defined as the online retailers' image concept. Therefore, OSI in this study is defined as the composition of the effects of OSI that contain six aspects which are usefulness, enjoyment, ease-of-use, familiarity, trust and settlement performance to create a positive OSI (Chen and Teng, 2013).

5.3 Financial risk

The definition of FR in the present study includes the possibility of monetary loss by consumers due to an item purchased arrived in poor condition or a bad purchase decision in online shopping (Kumar and Bajaj, 2016; Thakur and Srivastava, 2015). Kumar and Bajaj (2016) stated that consumers are concerned with monetary loss when shopping through the internet due to fraud of credit card issues among consumers. Furthermore, consumers also perceive FR involves limited availability of discount in online shopping compared to regular shopping at the store, and also extra charges towards delivery and

online transaction. Aghekyan Simonian et al. (2012) stated that a good OSI can reduce perceived FR in association with apparel products through online sales. This is because online stores can use safety cues as reduction in perceived FR (Aghekyan Simonian et al., 2012). Therefore, the following hypothesis between OSI and FR is proposed as shown below:

H₁ OSI will negatively influence perceived FR (OSI → FR).

According to Ariff et al. (2014), FR can influence consumers' attitude in online purchasing and behaviour among online shoppers in Malaysia. In addition, Javadi et al. (2012) stated that FR can influence consumers' attitude and behaviour among online shoppers in Iran. Therefore, the following hypothesis between FR and OPB is proposed shown as below:

H₉ Perceived FR will negatively influence OPB (FR → OPB).

5.4 *Product-performance risk*

The definition of PPR in the present study is the risk that consumers perceive products do not meet the expected performance in functionality and arrive in poor condition (Kumar and Bajaj, 2016). According to Asawa and Kumar (2016), PPR is a possibility for consumers to experience loss because items are of poor condition after purchasing. OSI is presented by product quality carried by online retailers (Aghekyan Simonian et al., 2012). Therefore, PPR can be reduced when sound brand names by well-known retailers are listed as products (Aghekyan Simonian et al., 2012). Therefore, the following hypothesis between OSI and PPR is proposed as shown below:

H₂ OSI will negatively influence perceived PPR (OSI → PPR).

Online shoppers in Malaysia are concerned about PPR when doing online shopping activities (Ariff et al., 2014). Furthermore, PPR has a negative influence on the purchase intention for digital and non-digital products (Dai et al., 2014). Therefore, the following hypothesis between PPR and OPB is proposed as shown below:

H₁₀ Perceived PPR will negatively influence OPB (PPR → OPB).

5.5 *Time or convenience risk*

The definition of TCR in this research is the possibility of a consumer to waste precious time due to a bad purchase decision including time taken to search for information, shops, and replacement of the product that does not meet the expectation (Zhang et al., 2012; Zheng et al., 2012). According to Kumar and Bajaj (2016), TR is the duration that consumers spend on product purchase. According to Javadi et al. (2012), convenience risk can be reduced through online retailers' great services and friendly website. A positive consumers' attitude for the functionality of website design such as product order submission can create more favourability on the OSI (Aghekyan Simonian et al., 2012) which reduce TR. Therefore, the following hypothesis between TCR and OSI is proposed as shown below:

H₃ OSI will negatively influence perceived TR or convenience risk (OSI → TR).

Kumar and Bajaj (2016) found that TR affects individuals studying in higher institutions in Punjab when shopping online. Moreover, the adverse effect on TR and OPB supports the finding of Arshad et al. (2015). As a result, the following hypothesis is proposed between TCR and OPB as shown below:

H₁₁ Perceived TR or convenience risk will negatively influence OPB (TR → OPB).

5.6 Privacy risk

PR can be defined as the possibility of risk that online sellers misuse consumers' personal information without appropriate ways and permission from consumers causing the consumers to feel frustrated (Thakur and Srivastava, 2015). Zendehtdel et al. (2016) stated that consumers are concerned about using e-commerce for shopping due to presence of security and privacy issues that online retailers fail to provide. Indeed, low confidence level among consumers towards the privacy and security protection is a reason for consumers not to complete their online transactions (Zendehtdel et al., 2016). Therefore, the following hypothesis between OSI and PR is proposed as below:

H₄ OSI will negatively influence perceived PR (OSI → PR).

Kumar and Bajaj (2016) stated that PR is significantly related to purchase intention among youth studying in higher educational institutes in Punjab. Moreover, Tanadi et al. (2015) claimed that PR is correlated to online intention among the generation-Y in Malaysia. Therefore, the following hypothesis between PR and OPB is proposed as shown below:

H₁₂ Perceived PR will negatively influence OPB (PR → OPB).

5.7 Psychological risk

According to Asawa and Kumar (2016), PSY is defined as a result of disappointment among consumers due to poor performance based on products or services that are purchased. It could lead to dissatisfaction or mental stress as suggested by Kumar and Bajaj (2016). In addition, PSY is defined as a possibility for consumers to feel the loss of self-image and self-concept based on products purchased (Asawa and Kumar, 2016). Consumers face the possibility of losing self-esteem due to the feeling of frustration over the poor performance of the purchased products (Zheng et al., 2012). Moreover, Ariff et al. (2014) stated that consumers are concerned about PSY due to problems that occur during online transaction when the products are expensive or are urgently needed. Therefore, the definition of PSY in the present study is the possibility for consumers to feel the loss of self-image and self-concept or being disappointed by product purchased due to poor performance (Asawa and Kumar, 2016). Thus, the following hypothesis between OSI and the PSY is proposed as shown below:

H₅ OSI will negatively influence perceived PSY (OSI → PSY).

Zheng et al. (2012) stated that PSY has a negative relationship towards attitude among online shoppers in China. However, a finding from Justin et al. (2012) argued that PSY does not have any impact on consumers' purchase intention. In the present study, the following hypothesis between PSY and OPB is proposed as below:

H₁₃ Perceived PSY will negatively influence OPB (PSY → OPB).

5.8 *Social risk*

Based on Asawa and Kumar (2016), blame from friends towards individuals due to the poor condition of products or services can be defined as a SR. Ariff et al. (2014) claimed that consumers fear over false transaction which results from reference groups including family members and friends. Therefore, the definition of SR in the current study is the possibility of a consumer to losses status within the social group due to defective products or poor services purchased from online shopping (Zheng et al., 2012). According to Zheng et al. (2012), online retailers must achieve personal risk relievers such as positive word of mouth, and more interaction between consumers and online sellers and more to reduce SR in online shopping. Therefore, the following hypothesis between OSI and the SR is proposed as below:

H₆ OSI will negatively influence perceived SR (OSI → SR).

Asawa and Kumar (2016) stated that SR is the possibility of loss in the form of value thinking towards individuals including friendship, respect, and esteem based on the result of online purchase. SR can be evaluated by preferred social group members towards individuals as a positive or negative perception (Asawa and Kumar, 2016). Therefore, the following hypothesis between SR and OPB is proposed as shown below:

H₁₄ Perceived SR will negatively influence OPB (SR → OPB).

5.9 *Delivery risk*

Ariff et al. (2014) and Zheng et al. (2012) defined DR as consumers who do not receive products purchased at the right time. DR occurs when consumers face long delivery process or products being damaged during the delivery process (Ariff et al., 2014; Zheng et al., 2012). Therefore, the definition of DR in this research is the possibility for consumers to feel frustrated due to the delivery process that results in product loss or damaged, or being delivered to a wrong place (Zhang et al., 2012). A long-term relationship can be created between consumers and online sellers based on a number of relative advantages gained from online retailers' website (Akroush and Al-Debei, 2015). Therefore, the following hypothesis between OSI and the DR is proposed as shown below:

H₇ OSI will negatively influence perceived DR (OSI → DR).

According to Tanadi et al. (2015), DR is significantly related to intention to shopping online among Generation-Y individuals in Malaysia. Javadi et al. (2012) explained that consumers fear that products ordered will not be delivered which will negatively affect attitude towards online shopping. Similarly, DR has a negative influence towards online purchase behaviour among China's online consumers (Zhang et al., 2012). Therefore, the following hypothesis between DR and OPB is proposed as shown below:

H₁₅ Perceived DR will negatively influence OPB (DR → OPB).

5.10 After-sale risk

The definition of ASR in this research is the possibility that the consumers at a disadvantage after the product has been purchased but the product does not perform as described by the retailers, a wrong products is sent, and no warranty is provided (Zhang et al., 2012). According to Zhang et al. (2012), ASR involves the risk that the consumers have to face after the product purchasing process is done in relation to product problems such as products that do not perform as described by retailers and more. Additionally, the ASR includes online retailers' problems such as online retailers' image, trustworthiness, and more which can be defined as risk by consumers after online sale is performed (Zhang et al., 2012).

Akroush and Al-Debei (2015) stated that relative advantages can create a positive website image among online consumers. Relative advantages can refer to after-sale services such as money guarantee, product warranty, and products or services advice. Zheng et al. (2012) pointed out that money-back guarantee is ranked as the third risk reduction strategies among online consumers in China. Therefore, the following hypothesis between OSI and the ASR is proposed as shown below:

H₈ OSI will negatively influence perceived ASR (OSI → ASR).

Zhang et al. (2012) stated that ASR has a negative impact towards online consumers' purchase behaviour in China. It can include products warranty such as products functionality, commercial disputes, and guarantee from online retailers. Therefore, the following hypothesis between ASR and OPB is proposed as shown below:

H₁₆ Perceived ASR will negatively influence OPB (ASR → OPB).

6 Research method

This study was carried out in quantitative method. The target population in this study is actual online shoppers whereby Malaysian online shoppers who have experience in doing online shopping within the age group between 20 to 39 years old. The selected target respondents in this study based on the data from Malaysian Communications and Multimedia Communications (2016) indicated 73% of individual in Malaysia are active online buyers aged between 20 to 39 years old. Besides, this can supported by the review form Lim et al. (2015) stated that youths are willing to adopt new technologies and have a high intensity to do online shopping.

The researchers used non-probability, convenience sampling techniques in this study since the researchers are unable to gain the accurate number of target respondents who have experienced online shopping within the age group of between 20 to 39 years old from various resources. Therefore, the researchers used G-power tools to perform power analysis in order to identify the sample size in this study and the required minimum sample size as 160 respondents for data collection. However, the researchers selected 300 target respondents to perform data collection process in order for maximise the result. However, the researchers collected 330 responses which 300 target respondents answered the online questionnaires formed by the researcher using Google Form and the remaining 30 responses were collected through questionnaire distributions around Kota Bharu, Kelantan.

The researchers distributed the online questionnaire through online and formed by Google Form. Moreover, two languages which are English and Malay are provided in online questionnaire to prevent confusion among target respondents when answering. The online questionnaire divided into four parts and described as below:

- Part A: Demographic profile.
- Part B: Perception of target respondents regarding OSI.
- Part C: Perception of target respondents regarding dimensions of perceived risk.
- Part D: Perception of target respondents regarding OPB.

The researchers apply nominal scale to respondents' personal information in Part A while the remaining parts of online questionnaire consist interval measurement scale (7-point Likert scale) based on majority of related past studies. All responses were analysed by Statistical Package of Social Science (SPSS) version 22.0 for descriptive analysis for the demographic profile. Moreover, the researchers used Smart PLS 3.0 software for the measurement model and structural model analysis. The measurement model analysis normally recognised as first stage and functional as measurement of reliability and validity while structural model analysis defined as the second stage and functional as hypothesis testing (Hair et al, 2012).

7 Summary of findings

Based on Table 1, 221 (67.0%) out of 330 respondents are female and the remaining 109 (33.0%) are male. In terms of race, Malay monopolised this study by 193 respondents (58.5%), followed by Chinese with 114 respondents (34.5%). Meanwhile, a majority of respondents is in the age group of 20 to 29 years old (307 respondents or 93.0%). Moreover, a majority of respondents is a Bachelor degree holder (207 respondents or 62.7%). Furthermore, most of the respondents in this study are students with a total number of 176 or 53.3% followed by respondents who work in the private sector (107 or 32.4%). With 149 out of 330 respondents, it is suggested that Lazada is the website they frequently shop in this study and followed Zalora (40 respondents), Hermo (22 respondents), Lelong (11 respondents), as well as Groupon (8 respondents).

Table 1 Respondent's demographic characteristics

<i>Demographic</i>	<i>Frequencies</i>	<i>Percentage</i>
<i>Gender</i>		
Male	109	33.0
Female	221	67.0
<i>Race</i>		
Malay	193	58.5
Chinese	114	34.5
Indian	10	3.0
Others	13	3.9

Note: Developed for research.

Table 1 Respondent's demographic characteristics (continued)

<i>Demographic</i>	<i>Frequencies</i>	<i>Percentage</i>
<i>Age</i>		
20 to 39	307	93.0
30 to 39	23	7.0
<i>Education</i>		
SPM	43	13.0
STPM	18	5.5
Diploma	39	11.8
Bachelor degree	207	62.7
Master degree	19	5.8
PhD	1	0.3
Others	3	0.9
<i>Occupation</i>		
Government sector	17	5.2
Private sector	107	32.4
Self-employed	18	5.5
Students	176	53.3
Unemployed	12	3.6
<i>Website most frequently shopped at</i>		
Lazada	149	45.2
Zalora	40	12.1
Shopee	32	9.7
Hermo	22	6.7
Lelong	11	3.3
Groupon	8	2.4
Others	68	20.6

Note: Developed for research.

As shown in Table 2, all indicators and variables in the present study are reliable and valid. Hair et al. (2012) clarified that loading values need to be more than 0.708 and the average variance extracted (AVE) value must be more than 0.5. Meanwhile, the composite reliability (CR) value must be more than 0.8 as suggested by Henseler et al. (2009).

The researcher decided to use the Heterotrait-Monotrait (HTMT.85) stringent criteria as a measurement as suggested by Kline (2011) is to identify the multicollinearity issues among constructs in this study. The result shows there are fewer multicollinearity issues among constructs since the value for each construct is less than 0.85.

Table 2 The measurement model analysis result

<i>Constructs</i>	<i>Item</i>	<i>Loading</i>	<i>CR</i>	<i>AVE</i>	<i>Validity</i>				
Online store image	OSI 1	0.681	0.926	0.534	Yes				
	OSI 2	0.700							
	OSI 3	0.794							
	OSI 4	0.765							
	OSI 5	0.776							
	OSI 6	0.739							
	OSI 7	0.769							
	OSI 8	0.739							
	OSI 9	0.672							
	OSI 12	0.688							
	OSI 13	0.706							
	Financial risk	FR 1				0.797	0.821	0.605	Yes
		FR 2				0.750			
FR 3		0.787							
Product-performance risk	PPR 1	0.777	0.899	0.690	Yes				
	PPR 2	0.827							
	PPR 3	0.863							
	PPR 4	0.853							
Time or convenience risk	TCR 1	0.720	0.874	0.635	Yes				
	TCR 2	0.820							
	TCR 3	0.822							
	TCR 4	0.820							
Privacy risk	PR 1	0.928	0.960	0.858	Yes				
	PR 2	0.955							
	PR 3	0.909							
	PR 4	0.912							
Psychological risk	PSY 1	0.788	0.862	0.675	Yes				
	PSY 2	0.838							
	PSY 3	0.837							
Social risk	SR 1	0.901	0.934	0.825	Yes				
	SR 2	0.916							
	SR 3	0.908							
Delivery risk	DR 1	0.924	0.933	0.823	Yes				
	DR 2	0.932							
	DR 3	0.863							
After-sale risk	ASR 1	0.895	0.932	0.821	Yes				
	ASR 2	0.910							
	ASR 3	0.913							

Note: Developed for research.

Table 2 The measurement model analysis result (continued)

<i>Constructs</i>	<i>Item</i>	<i>Loading</i>	<i>CR</i>	<i>AVE</i>	<i>Validity</i>
Online purchasing behaviour	OPB 1	0.784	0.930	0.726	Yes
	OPB 2	0.858			
	OPB 3	0.891			
	OPB 4	0.872			
	OPB 5	0.853			

Note: Developed for research.

Table 3 The HTMT stringent criterion

	<i>PPR</i>	<i>ASR</i>	<i>DR</i>	<i>FR</i>	<i>OPB</i>	<i>OSI</i>	<i>PR</i>	<i>PSY</i>	<i>SR</i>	<i>TCR</i>
PPR										
ASR	0.684									
DR	0.611	0.688								
FR	0.619	0.446	0.374							
OPB	0.578	0.643	0.486	0.556						
OSI	0.198	0.130	0.106	0.218	0.110					
PR	0.639	0.594	0.616	0.451	0.564	0.083				
PSY	0.546	0.548	0.595	0.577	0.694	0.191	0.644			
SR	0.494	0.507	0.531	0.695	0.618	0.169	0.474	0.841		
TCR	0.741	0.653	0.491	0.613	0.614	0.288	0.595	0.634	0.580	

Notes: Developed for research.

HTMT established at HTMT_{.85}.

OSI = online store image; FR = financial risk; PPR = product performance risk;

TCR = time or convenience risk; PR = privacy risk; PSY = psychological risk;

SR = social risk; DR = delivery risk; ASR = after-sale risk; OPB = online purchasing behaviour.

Table 4 The path coefficient result

<i>Relationship</i>	<i>Hypothesis</i>	<i>Direct effect (β)</i>	<i>Standard error</i>	<i>T-statistic</i>	<i>Significant</i>
OSI > FR	H ₁	-0.191	0.065	2.937	Significant
OSI > PPR	H ₂	-0.210	0.051	3.219	Significant
OSI > TCR	H ₃	-0.297	0.056	5.339	Significant
OSI > PR	H ₄	-0.082	0.063	1.306	Not significant
OSI > PSY	H ₅	-0.159	0.054	2.931	Significant
OSI > SR	H ₆	-0.200	0.050	3.982	Significant
OSI > DR	H ₇	-0.088	0.075	1.175	Not significant
OSI > ASR	H ₈	-0.139	0.069	2.021	Significant

Notes: Developed for research.

OSI = online store image; FR = financial risk; PPR = product performance risk;

TCR = time or convenience risk; PR = privacy risk; PSY = psychological risk;

SR = social risk; DR = delivery risk; ASR = after-sale risk; OPB = online purchasing behaviour.

Table 4 The path coefficient result (continued)

<i>Relationship</i>	<i>Hypothesis</i>	<i>Direct effect (β)</i>	<i>Standard error</i>	<i>T-statistic</i>	<i>Significant</i>
FR > OPB	H ₉	-0.089	0.051	1.749	Significant
PPR > OPB	H ₁₀	-0.051	0.062	0.818	Not significant
TCR > OPB	H ₁₁	-0.092	0.056	1.629	Not significant
PR > OPB	H ₁₂	-0.119	0.101	1.183	Not significant
PSY > OPB	H ₁₃	-0.215	0.066	3.250	Significant
SR > OPB	H ₁₄	-0.146	0.062	2.335	Significant
DR > OPB	H ₁₅	0.065	0.068	0.954	Not significant
ASR > OPB	H ₁₆	-0.283	0.061	4.677	Significant

Notes: Developed for research.

OSI = online store image; FR = financial risk; PPR = product performance risk; TCR = time or convenience risk; PR = privacy risk; PSY = psychological risk; SR = social risk; DR = delivery risk; ASR = after-sale risk; OPB = online purchasing behaviour.

Path coefficient is one of the analysis way to identify the degree of independent variables to dependent variable and significant impact as well. Since the researcher proposed directional hypothesis which indicated that the t-value must be more than 1.657 for significant testing as well as direct beta for measurement of relationship between variables that suggested by Hair et al. (2016). Based on Table 4, the direct effect for all hypotheses in this study are supported since all values in negative form. Although all the direct effect values are negative form. However, the significant impact measurement just supported 10 out of 16 hypotheses in this study. Therefore, six hypotheses are rejected in this study which are H₄, H₇, H₁₀, H₁₁, H₁₂ and H₁₅.

8 Discussion

The present study was conducted as a quantitative research study to measure the relationship between OSI and dimensions of consumers' perceived risks which are financial, product-performance, time or convenience, privacy, psychological, social, delivery and ASRs. In addition, this study intended to identify the relationship between dimensions of consumers' perceived risks and OPB. The total data of 330 were collected by the researcher in which 300 target respondents answered the online questionnaires formed by the researcher using Google Form and the remaining 30 responses were collected through questionnaire distributions around Kota Bharu, Kelantan. The collected data were analysed using the SmartPLS 3.0 and the analysis was formed based on the research framework in which OSI was the independent variable, dimensions of consumers' perceived risks were the independent variables or dependent variables, and OPB was the dependent variable. 16 hypotheses were proposed by the researcher in which Hypotheses 1 to 8 were identified as the effect of OSI towards dimensions of consumers' perceived risks while Hypotheses 9 to 16 identifies the effect of the dimensions of consumers' perceived risks towards OPB as shown in Table 4.

The first research objectives in the present study is to identify whether OSI influences dimensions of consumers' perceived risks in this study. The researcher proposed eight

hypotheses which stated that OSI will negatively influence each dimensions of consumers' perceived risks. Two hypotheses were rejected which are PR and DR which were not negatively influenced by OSI. The data findings indicated that t-values for both risks were less than 1.645 suggesting for rejection of the null hypothesis which stated by Hair et al. (2016). Therefore, it can be concluded that Malaysian online consumers' fear of the misuse of personal information invalid as online retailers provide great security protection as stated by Tanadi et al. (2015). Nonetheless, the finding in this study on DR is contradicted with previous study by Zhang et al. (2012) who indicated that DR is still considered as the greatest fear among Malaysian online consumers when shopping online. They added that this is due to the product purchased might get lost and damaged during the delivery process even though they bought the product from the established website. However, the researchers justified that the insignificant result on DR is caused by the third parties logistic companies. This can be supported from the current study by Xiao et al. (2018) stated that logistic partners plays significant roles with online retailers in order to complete online shopping process and logistic chain. It could be the respondents are not satisfied with the delivery even though they have a good perception towards the website. Based on the finding in the current study, positive OSI is capable to reduce FR among Malaysian online consumers if the online retailers or online purchase platform provider provide sense of high security towards financial settlement system and safety cue as also suggested by Zheng et al. (2012). Furthermore, Malaysian online consumers tend to purchase online products from familiar brand or online retailers indicating that OSI is able to reduce PPR which is also supported by the finding from Aghekyan Simonian et al. (2012). Additionally, great website design and functionality are capable to create positive OSI which directly can reduce TCR and PSY as supported by the finding from Chen and Teng (2013) and Tanadi et al. (2015). Positive OSI that can be achieved by positive word of mouth among social groups which can subsequently reduce social as suggested by Zheng et al. (2012). Lastly, positive OSI also can reduce ASR based on after-sale service that online retailers prepared for consumers (Zheng et al., 2012).

The second research objective in this study is to determine whether dimensions of consumers' perceived risks have influence on OPB. The researcher proposed eight hypotheses indicating that all dimensions of consumers' will negatively influence OPB in this study. From the eight proposed hypotheses proposed, only four hypotheses were accepted which are financial, psychological, social, and ASRs where the risks negatively influence OPB. The data suggests that Malaysian online consumers fear of the possibility monetary loss due to low security in the financial settlement system, overcharging the customers, and hacking of bank account as stated by Ariff et al. (2014). Furthermore, online consumers in Malaysia are concerned about the possibility of loss of self-image, self-concept, and self-esteem that results from faulty product that have been purchased online as also suggested by Zheng et al. (2012) and Kumar and Bajaj (2016). The finding is in agreement with Asawa and Kumar (2016) where Malaysian online consumers try to stay away from SR as they are concerned about losing status from their social groups. Last but not least, Malaysian online consumers in this study are concerned about product warranty, commercial disputes, and product guarantee that cannot be claimed from online retailers or online purchase platform providers after purchasing process indicating that ASR affects OPB that supported by similar finding was also discussed by Zheng et al. (2012).

9 Conclusions

The development of the internet has become an important marketing channel known as e-commerce to retailers, marketers, sellers as well as consumers given the variety of benefits provided. However, consumers tend to be concerned with a variety of risks known as perceived risks when shopping online that result in many consumers abandoning online shopping. Positive OSI can reduce consumers' perceived risks and lead to positive behaviour as stated by Aghekyan Simonian et al. (2012). Therefore, this paper intended to identify OSI that would negatively influence the eight dimensions of consumers' perceived risks (financial, product-performance, time or convenience, privacy, psychological, social, delivery, and ASRs), as well as the consumers' perceived risks, that would negatively influence OPB. This is due to the researcher's belief that this study is able to give great insights for current and future retail industry in Malaysia since online retailing will dominate the traditional brick and mortar retail based on current world trend by studying the importance of OSI to reduce perceived risks and lead to positive behaviour. The new conceptual framework in this study provided great insights about the affirmative OSI and how it is able to reduce consumers' perceived risks. Additionally, dimensions of consumers' perceived risks that will negatively influence OPB were also analysed. All findings in this study on the perception of OSI, consumers' perceived risks, and OPB are based on the experienced Malaysian online shoppers aged from 20 to 39 that can be categorised as the youth generation. In a nutshell, this study provided future research opportunities whereby future researchers carry out a new study by focusing specific websites or product categories like garments. Moreover, this study indicated that online purchase platform providers, online retailers or online marketers can identify the affirmative OSI that is capable of reducing consumers' perceived risks and lead to a positive purchasing behaviour. Moreover, consumers can gain knowledge about the risks that might be faced in online shopping activities and ways to handle them by through this research.

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