



The Effect of Perceived Risk on Consumer's Online Purchase Intention at Zalora for Muslim Clothing Product

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Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

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ABSTRACT

Aims: This study examines the effect of perceived risk on consumers' online purchase intention at e-commerce for a specific clothing product. Mainly, in this research, there are six perceived risk factors: Financial risk, product risk, security risk, time risk, social risk, and psychological risk.

Place and Duration of Study: This study was conducted in Indonesia, without any specific domicile in determining the respondents, from November 2022 to June 2023.

Design/Methodology: This study uses a quantitative approach with data collection methods in an online questionnaire and is determined using non-probability purposive sampling. Data was obtained by distributing online questionnaires to 250 respondents who know Zalora (following the predetermined criteria). This research was processed using IBM SPSS Statistic 26.

Results: This study's results show the negative effects of product risk and time risk on consumers' online purchase intention. On the other hand, it also shows that there is no effect from financial, security, social, or psychological risks on consumers' online purchase intention.

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Keywords: *Financial risk; product risk; security risk; time risk; social risk; psychological risk; online purchase intention; e-commerce.*

1. INTRODUCTION

Purchase intention is used to measure a consumer's tendency to buy a product, and the relationship between the two components can be interpreted as "the stronger the purchase intention, the greater the consumer's desire to buy a product" [1]. According to the 2019 Global Online Market Ranking, the number of people shopping online has increased significantly in recent years. Online shopping is considered to have become an essential part of consumers' daily routines, so buying and selling products and or services via the Internet is referred to as online shopping (online shopping) [2]. Meskaran et al. [3] define online purchase intention as consumers' readiness to purchase via the Internet. George [4] defines buying behavior via the Internet as the process of buying products, services, and information via the Internet, George [4] defines this term based on the previous definition from Azjen and Fishbein [5] regarding consumer behavior and interests. Therefore, online buying interest in a web-shopping environment will determine consumer interest in online purchases [3].

In the terms of Online shopping, there are also several factors that can influence consumer buying interest [6]. According to Heijden et al. [7]. unlike offline consumers, online consumers face the risks of purchasing through websites such as credit cards, fraud, and not receiving product rights after ordering. Consumers consider online shopping riskier than offline shopping, which provides satisfaction in physical purchases where consumers can see, feel and touch the product before purchasing [7]. George [4] states that many consumers decide not to shop online because of consumer concerns about the spread of personal information and privacy.

Perceived risk can be defined as the consumer's belief that they will suffer from negative and uncertain outcomes when purchasing online [8]. Kanade and Kulkarni [9] found that aspects that have an impact on consumer behavior are Perceived Risk (risk of products, money, information, debit/credit cards, products not delivered, improper delivery, etc.). Financial loss, breach of privacy and security, and loss of product quality are considered the principal risks of shopping in e-commerce [10]. Based on research by Ariffin et al. [6]. there are six risks

related to consumer risk perception with the consumer's online purchase intention. The six risks are financial risk, product risk, security risk, time risk, social risk, and psychological risk. Therefore the main purpose of this research is to examine the effect of these factors. Based on the explanations above, the main question of this research is, is there any effect or influence between the six factors of perceived risk and consumers' online purchase intention.

2. LITERATURE REVIEW

2.1 Theory of Perceived Risk

Since Bauer first introduced it in 1967 [27], researchers have begun to study the issue of risk perception widely. Dowling and Staelin [28] define risk perception as the construction of a perceived situation that has been defined into various types. Perceived risk is closely related to the process of finding and selecting product/service information before making a purchase [22]. If consumers do not get a shopping experience that is in accordance with their purchase goals (purchasing goals), then the perceived risk will increase [29]. Perceived risk is defined as the uncertainty about the bad results that consumers might get when making a purchase [34], and the possibility of dissatisfaction when buying a product that is not in accordance with the purpose of purchasing the product [13]. The amount of risk perceived by consumers is a function of two main factors, namely the amount at stake in the purchase decision and the individual's subjective feeling that he will "win" or "lose" all or part of the amount at stake [35]. Perceived risk refers to consumer buying behavior, where there is uncertainty about the risks that may occur in the future. This uncertainty will directly impact consumer buying interest [36]. Now people making purchases would expect that they would be exposed to risk; therefore, today's younger generation avoids risks by not making purchases online [37]. In this study, there are six risk factors examined, namely financial risk, product risk, security risk, time risk, social risk, and psychological risk.

2.1.1 Financial risk

"Financial risk is defined as the potential loss of money. It includes consumer insecurities related

to online credit card use, which is a significant barrier to online purchases” [38]. Popli and Mishra [39] define financial risk as the possible cost of repairs required for products purchased online. Financial risk is the primary risk considered when shopping online [40]. Illusions about discounts can lead consumers to waste their money on unimportant goals [6]. Moreover, in Pakistan, 97% of people do not share their personal information with sellers in e-commerce, and they prefer to buy in cash using the COD (cash on delivery) feature [40].

2.1.2 Product risk

Product risk is the perception that the purchased product may fail to function as initially expected [41]. Product risk relates to the performance or quality of goods and services consumers choose through online shopping. In addition, product risk is usually associated with buying merchandise that may not work as it should [14]. Bhatnagar et al. [42]. also stated the losses incurred when a brand or product does not function as expected, mainly due to the inability of buyers to evaluate product quality online accurately. Shopping online will make it difficult to inspect goods physically; consumers must rely on very limited information and images that can only be displayed on a computer screen [43].

2.1.3 Security risk

“Security risks are situations where consumers feel they have lost their personal information, and online retailers use that information and provide it to others without permission” [44]. Youn [45] states that “the security of personal information is related to uncertainty about how online companies handle personal information and who has access to that information”. “Security risks consist of potential losses due to online fraud or hacking, which expose the security of users transacting over the Internet” [16]. According to Karnik [46], as “internet vendors already exist globally, consumers' risk perceptions of online shopping also increase, especially when they feel that security on the Internet is inadequate. It is agreed that one of the barriers to online shopping is fear of a lack of security” [47]. In addition, “online shoppers are faced with the fear of losing their personal information” [48].

2.1.4 Time risk

“In online shopping, time risk has been defined as the potential loss of time and effort, including

issues related to website navigation, waiting times for product receipt, time spent returning faulty items, and processing and shipping delays” [49]. “Time risks often include inconveniences incurred during online transactions due to difficulties in navigating and/or sending orders or delays in receiving products” [50]. Cases [51] stated “time risk as the possibility that time is wasted searching for information and making purchases, and the purchase turns out to be bad”. Time risk is one-factor influencing consumer buying behavior via the Internet [52]. “Sometimes consumers can leave the site without buying anything because they cannot find the desired product” [39].

2.1.5 Social risk

“Social risk is the risk that choosing a lousy shopping place will result in social embarrassment” [53]. “Social risk refers to the perception that a product purchased can result in disapproval by family or friends” [31]. “Social risk also refers to the potential for loss of status in social groups because one of them is product incompatibility or disapproval of using the Internet as a shopping channel. Social risk is also recognized as the level of consumer confidence that consumers will be evaluated and assessed negatively because of their product (brand) preferences. The possibility of a loss of image or social status felt by purchasing certain brands or products via the Internet is stated as a social risk. Usually, consumers try to get guidance or approval from their social group to reduce social risk” [24]. Solomon and Rabolt [54] added that “social risk refers to self-esteem and self-confidence, which causes insecure and uncertain consumers to be the most vulnerable”. In addition, social risk can involve fear, especially from family and friends who disapprove of their online purchases [39].

2.1.6 Psychological risk

“Psychological risk refers to the perception that there is a negative effect on customer satisfaction or satisfaction that a defective product may cause. This can prevent many consumers from providing information to web providers for access to the information offered on these websites” [55]. “With the complex nature of online shopping, consumers inherently feel more psychological risk when buying products online than consumers who buy traditionally” [56].

2.2 Online Purchase Intention

Online buying interest describes consumers' desire to buy online products and/or services [30]. Consumers' willingness to buy products or services through shops on the Internet is defined as an intention to buy online [31]. Online purchase intention can be defined as the desire of consumers to make purchases through mobile applications [32]. Thus, online buying interest can be concluded as consumers' strong desire and willingness to purchase products or services via the Internet. In addition, Iqbal et al. [33]. define online purchase intention as the desire of consumers to use Internet services to purchase goods and services or compare product prices. Thus, online buying interest can be concluded as consumers' strong desire and willingness to purchase products or services via the Internet.

2.3 Conceptual Framework

Conceptual Framework is shown in Fig. 1.

2.4 Hypothesis Development

“Financial risks play an important role for those who choose to shop online. This relates to financial risks that pose threats, lead to unwanted feelings, and affect consumer behavior” [72]. In a similar study on a private label, the financial risk perceived by consumers negatively influences their purchase intention, as stated by Bhukya and Singh [12]. Financial risk is also indicated as a strong influence on consumer online buying interest in apparel products.

H1: Financial risk has a negative effect on online purchase intentions.

“Product risk is the reason why many consumers do not want to buy products via the Internet and therefore is considered to have a significant influence on consumer behavior toward online shopping. When orders and products do not meet consumer expectations, consumers tend to think that the product is not worth the price they pay” [19]. “Product quality description and appearance lead to product risk causes, which significantly affect consumers' ability to understand products. The inability to check the product, perhaps the display of inadequate product information, increases consumer anxiety” [73;74].

H2: Product risk has a negative effect on online purchase intentions.

A study by Thompson and Liu [75] found a significant relationship between security risk and interest in buying online. Online shopping depends on many things, such as personal data security. Previous research has shown that security risk negatively affects consumer buying behavior [66;37]. Martin and Camarero [76] show that “consumers avoid online shopping because of inconvenience because most consumers are afraid of losing their credit card information resulting in credit card theft. Thus, they conclude that security risk significantly influences online shopping intentions”.

H3: Security risk has a negative effect on online purchase intentions.

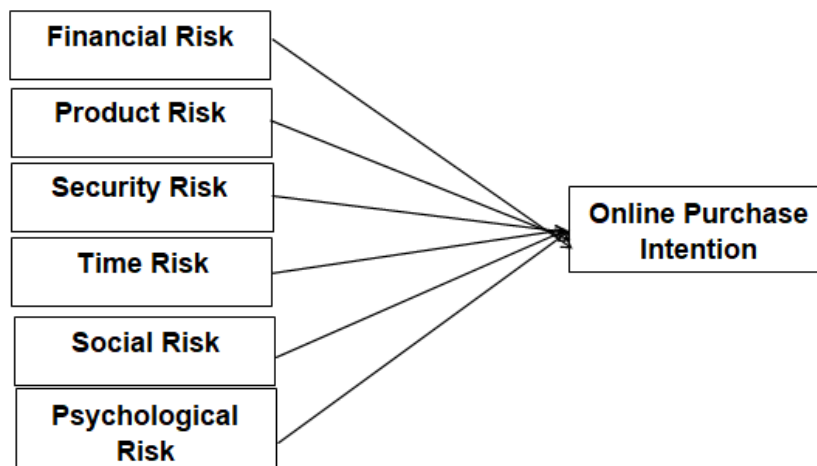


Fig. 1. Conceptual framework

“Online shopping requires remote transactions so consumers who buy online cannot use or consume products immediately and must wait for the products to be delivered” [77]. “Consumers may experience dissatisfaction, low repurchase intention, or intention to complain due to delays from the purchase process to actual receipt and consumption” [77]. A study focusing on online consumers in South Africa found that 26% of respondents complained about delivery problems online shopping [78].

H4: Time risk has a negative effect on online purchase intentions.

Consumers may decide not to engage in online shopping because they fear rejection or ostracization by society because of the types of products they buy or the online retailers they may use [56]. In addition, according to Han and Kim [79], social risk is negatively related to consumer buying interest in Taobao, China's online marketplace.

H5: Social risk has a negative effect on online purchase intentions.

Psychological risk was found to influence consumers' online purchasing decisions and explains why many consumers purchase products online only after checking and trying the product in-store for the first time [80]. Psychological risk is negatively related to consumer buying interest in Taobao, China's online marketplace, as supported by Han and Kim [79].

H6: Psychological risk has a negative effect on online purchase intentions.

3. METHODOLOGY

3.1 Measurement

The research method used in this study is quantitative. The data used in conducting this research is primary data. The primary data in this study were obtained directly by conducting an online survey using the Google Form application. In addition, this questionnaire was distributed via social media, namely Whatsapp, Instagram, and Line, using the questionnaire link that the researcher posted or sent via personal chat. Variable measurements in this study were measured using four Likert Scales. The scale

has the following information: a) Score 1 = strongly disagree, b) Score 2 = disagree, c) Score 3 = agree, and d) Score 4 = strongly agree. The composition of the questions in this research questionnaire consists of two parts, namely:

Part I: Descriptive Questions

Respondent information, such as gender, age, religion, last education, occupation, and income. In addition, there are also screening questions that can ensure respondents know Zalora e-commerce.

Part II: Variable Questions

Financial risk (6 items), product risk (5 items), security risk (5 items), time risk (5 items), social risk (4 items), psychological risk (4 items), and online buying interest (4 items).

3.2 Sampling and Data Collection

The technique used in this research is non-probability convenience sampling. Convenience sampling technique, also called non-probability sampling method where a person is selected for inclusion in the sample because that person is most accessible to the researcher. This could be due to geographic proximity, availability at a particular time, or willingness to participate in research. Simply put, the researcher decides what needs to be known and tries to find people who can and are willing to provide their judgment based on their knowledge or experience [57]. The researcher chose one of the e-commerce sites, namely Zalora, as the object because Zalora is an e-commerce site with a large number of users in Indonesia. “Zalora is an online fashion and beauty store that offers a wide range of clothing, accessories, shoes, and beauty products for men and women. Then, to be more precise, this research will focus on Muslim fashion products sold online through Zalora. Muslim clothing is various types of clothing worn by Muslim women following the provisions of Islamic law, intended to cover body parts that are inappropriate to be shown to the public” [26]. The sample in this study was taken with a condition that the respondent must know Zalora e-commerce. This is because this study aimed to determine buying interest in Muslim fashion products at Zalora.

3.3 Data Analysis

“Descriptive analysis is the first stage of data analysis in this research. Data will be grouped in frequency tables based on certain characteristics and expressed in percentage frequencies or displayed visually using pie charts, tables, etc” [81].

Second is statistical analysis. Statistical analysis is used to determine the effect of the independent variables on the dependent variable and to prove or test the hypotheses that the authors propose. The analysis technique used in this study was multiple regression using IBM SPSS Statistics 26. This study performed factor analysis, reliability test, the classical assumption test, and regression analysis.

The first stage is factor analysis using the component matrix method, where the factor loading value used in this study was 0.350, according to the reference from Hair et al. [58]. Valid indicators on each variable can be used for further tests. Meanwhile, invalid indicators in the component must be removed and retested in the same way.

The second stage is the reliability test, where this test was performed using Cronbach's Coefficient Alpha if Cronbach's Alpha > 0.6, the instrument can be declared reliable [59].

The third stage is the classical assumption test. This study has three types of measurements: multicollinearity test, heteroscedasticity test, and normality test. The multicollinearity test was carried out in order to be able to test whether the regression model found a correlation between the independent/independent variables [62]. The heteroscedasticity test was carried out in order to be able to test whether, in the regression model, there is an inequality of variance from the residuals of one observation to another [62]. The normality test was carried out in order to be able to test whether, in the regression model, the dependent variable and independent variable both have a normal distribution or not [62].

The last stage is regression analysis. Multiple linear regression analysis is an analytical technique used when there is more than one hypothesized independent variable that influences one dependent variable [60]. Ghazali [61] said that apart from measuring the strength of the relationship between two or more variables, the regression analysis also shows the direction of the relationship between the

independent and dependent variables. Therefore in this study, there are three types of measurements, namely partial test (T-test), simultaneous test (F-test), and R squared (R^2). The measurement can be called significant if the statistical test value is in the critical area or the area where H_0 is rejected, while the measurement can be called insignificant if the statistical test value is not in the critical area or H_0 fails to be rejected [62].

4. RESULTS AND DISCUSSION

4.1 Respondent Characteristics

The characteristics of respondents [Table 1] is an explanation of the results of the analysis of the profile data of 250 respondents from the results of the questionnaire, which are classified based on several characteristics.

Table 1 shows that the majority of participants in this study were female respondents (81,2%), with an age range of 20-25 years old that involved 158 respondents (63,2%) and had an average monthly income of IDR 1.000.001 - IDR 3.000.000 with a total of 79 respondents (31,6%). Table 1 also shows that most participants in this study were Muslim respondents (88%). Furthermore, the data shows that most of the respondents of this study were a student (123%), and most of them were bachelor-master-postgraduate degrees (49,2%).

4.2 Measurement Model: Factor Analysis and Reliability Test

Table 2 shows the result of factor analysis on each item from the independent variables. The factor loading value used in this study was 0.350, according to the reference from Hair et al. [58]. Valid indicators on each variable can be used for further tests. In contrast, indicators that are invalid on the component must be removed and retested. Validity is the degree of accuracy or feasibility of the instrument used to measure what will be measured [82]. In this study, almost all of the items were found valid because they have higher value than the factor loading (0.350) as it can be seen in the Table 2. On the other hand, there were two items from two variables were found invalid. Thus they were removed and not included in the Table 2.

Table 3 shows the result of the reliability test conducted on each variable. Reliability testing is used to measure data consistency or reliability of each research instrument in each variable [83].

This reliability test was performed using Cronbach's Coefficient Alpha. The instrument can be declared reliable if Cronbach's Alpha > 0.6 [59]. From Table 3, it is known that the Cronbach's alpha value is greater than 0.6. Thus, all variables in this study are reliable.

4.3 Structural Model Analysis

The result of the Classical Assumption test in this study is presented in Table 4, Fig. 2, and Fig. 3. Therefore, from Table 4, it can be determined that there is no effect of multicollinearity in the regression model (VIF < 10, Tolerance > 0.1). Fig. 2 shows that the residuals in the scatterplot image appear to spread randomly, and the points spread above and below the number 0 on the Y axis. It can be concluded that there is no effect of heteroscedasticity in the regression model. Lastly, figure 3 also shows that the data is spread

around the diagonal line of the normal plot graph and follows the direction of the diagonal line and the histogram shows a normal distribution pattern. Therefore it can be concluded that the residual data is normally distributed.

Multiple linear regression is used to determine the effect of financial risk, product risk, security risk, time risk, social risk and psychological risk on online purchase intention. Table 5 presented the result of the multiple regression analysis, which suggests that there are only two out of six variables, namely, product risk (Sig. < α , α = 0.05, Sig. = 0.029) and time risk (Sig. < α , α = 0.05, Sig. = 0.000) that were found negatively and significantly affect consumer's online purchase intention, whereas the other four variables were found to be insignificant, namely, financial risk (Sig. \geq α , α = 0.05, Sig. = 0.154), security risk (Sig. \geq α , α = 0.05, Sig. = 0.411),

Table 1. Characteristics of respondents

Category	Item	f	%
Gender	Male	47	18.8
	Female	203	81.2
	Total	250	100
Age	17-20	20	8
	20-25	158	63.2
	26-30	40	16
	31-35	28	11.2
	35-40	4	1.6
	Total	250	100
Religion	Islam	220	88
	Christian	18	7.2
	Catholic	12	4.8
	Total	250	100
Education	Students	76	30.4
	Associate Degree	51	20.4
	Bachelor-Master-Postgraduate Degree	123	49.2
	Total	250	100
Occupation	Students	123	49.2
	Civil Servants	2	0.8
	Teachers/Lecturers	1	0.4
	BUMN/BUMD	4	1.6
	Private Employees	84	33.6
	Entrepreneur	35	14
	Jobless	1	0.4
	Total	250	100
Monthly Income	<IDR 1.000.000	16	6.4
	IDR 1.000.001 - IDR 3.000.000	79	31.6
	IDR 3.000.001 - IDR 5.000.000	67	26.8
	IDR 5.000.001 - IDR 7.000.000	63	25.2
	>IDR 7.000.000	25	10
	Total	250	100

Source: Primary data processed (2023)

social risk (Sig. $\geq \alpha$, $\alpha = 0.05$, Sig. = 0.271) and psychological risk (Sig. $\geq \alpha$, $\alpha = 0.05$, Sig. = 0.460). The coefficient of determinant (R^2) of perceived risk is 0.206, indicating that 20.6% of the variables in online purchase intention have

not been significantly represented by the six perceived risk factors (financial risk, product risk, security risk, time risk and psychological risk). There is still another 79.4% which is explained by other variables that is not included in this study.

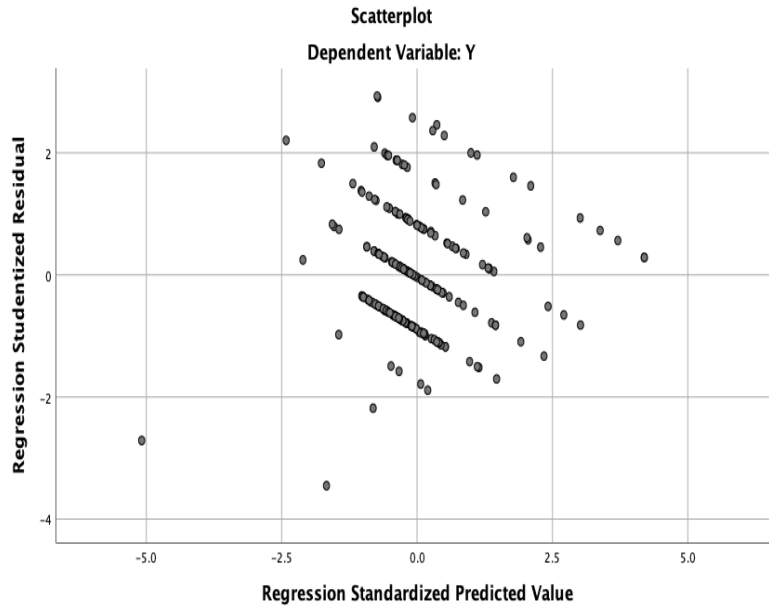


Fig. 2. Heteroscedasticity test
Source: Primary data processed (2023)

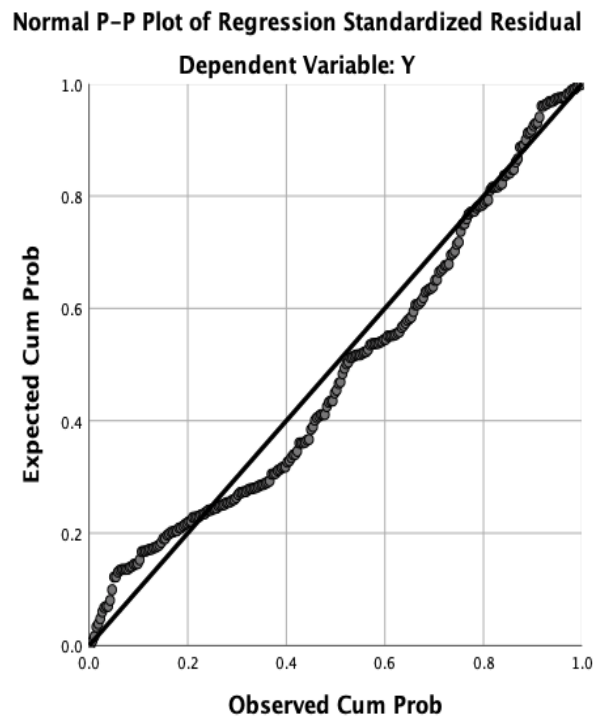


Fig. 3. Normality test
Source: Primary data processed (2023)

Table 2. Factor analysis on variables

Construct	Items	F1	F2	F3	F4	F5	F6	Validity
Financial Risk	I do not trust the online company	0.791						Valid
	Transaction security	0.915						Valid
	Product may not be worth the money I spent	0.840						Valid
	Shopping online can involve a waste of money	0.820						Valid
	I tend to overspend	0.836						Valid
	I might get overcharged	0.897						Valid
Product Risk	The description may not be accurate		0.755					Valid
	I am unable to find the desired product							
	It is difficult for me to compare the quality of a similar to product		0.778					Valid
	I might not receive the exact quality of a product that i purchased		0.818					Valid
			0.751					Valid
Security Risk	The website can be insecure			0.842				Valid
	I feel safe giving my personal details to an online organization if requested			0.809				Valid
	The online shopping company may disclose my personal information				0.833			Valid
	I feel that my credit or debit card details are not secured					0.816		Valid
Time Risk	Finding the right product through online is difficult				0.492			Valid
	Communicating with the seller may require a lot of time				0.878			Valid
	Impatient to wait for the product arrived				0.396			Valid
	I may not be able to wear this clothing item on time				0.472			Valid
	Buying a product online can involve a waste of time				0.835			Valid

Social Risk	The purchased product may result in diasapproval by family	0.759	Valid
	Online shopping may affect the image of people around me	0.742	Valid
	Online products may not be recognized by relatives or friends	0.651	Valid
	My signing up for and using an XXX would lea to a social loss for me because my friends and relatives think less highly for me	0.668	Valid
Psychological Risk	I cannot trust the online company	0.838	Valid
	I fear the apparel will not be delivered appropriately	0.851	Valid
	I could be frustrated if I am dissatisfied with the quality of the product	0.580	Valid
	The thought of purchasing this tablet PC gives me a feeling of unwanted anxiety	0.832	Valid

Notes: N = 250; items with factor loadings less than 0,350 were deleted
Source: Primary data processed (2023)

Table 3. Reliability analysis

Construct	No. of Items	Cronbach Alpha
Financial Risk	6	0.923
Product Risk	4	0.801
Security Risk	4	0.853
Time Risk	5	0.607
Social Risk	4	0.665
Psychological Risk	4	0.787
Online Purchase Intention	4	0.601

Source: Primary data processed (2023)

Table 4. Multicollinearity test

Independent Variable	Tolerance	VIF
Financial Risk	0.256	3.912
Product Risk	0.242	4.172
Security Risk	0.142	7.037
Time Risk	0.823	1.216
Social Risk	0.728	1.374
Psychological Risk	0.220	4.554

Source: Primary data processed (2023)

Table 5. Multiple regression analysis

Dependent Variable	Independent Variable	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
Online Purchase Intention	Financial Risk	0.075	0.052	0.160	1.430	0.154
	Product Risk	-0.132	0.060	-0.251	-2.192	0.029
	Security Risk	-0.058	0.071	-0.123	-0.823	0.411
	Time Risk	-0.393	0.065	-0.375	-6.023	0.000
	Social Risk	-0.055	0.050	-0.073	-1.104	0.271
	Psychological Risk	-0.047	0.063	-0.089	-0.740	0.460
	Adjusted R square	0.206				

R square = 0.225
Sig. F = 0.000

Source: Primary data processed (2023)

4.4 Discussion

4.4.1 The effect of financial risk on consumers' online purchase intention

The finding of H1 is contrary to the previous studies from Ariffin et al. [6]. and Çemberci et al. [63]. They both stated that financial risk has a negative effect on consumer's online purchase intention. In this study, financial risk is found to be insignificant. Even so, this finding aligns with previous studies from Zheng et al. [13] and Mamman et al. [64]. According to Zheng et al. [13]. this can happen because previously, consumers who wanted to shop online were

worried about payment security when the online payment system had not been perfected. Then, the payment system has been well developed so that shopping sites or third-party payments guarantee payment security. In addition, Mamman et al. [64]. also found results similar to this study. According to him, this could be due to the nature or personal perception of the respondents and/or increased safety against the use of credit cards in the Nigerian financial system that makes consumers confident. Coupled with students or students whose average income is not yet high, they tend not to buy expensive things online.

4.4.2 The effect of product risk on consumers' online purchase intention

The finding of H2 aligns with the previous studies from Masoud [65] and Ariffin et al. [6]. Masoud [65] found it difficult to assess product quality via the Internet or literally touch and examine products via the Internet, which is one of the reasons product risk perception factors are important and significant. In addition, according to Ariffin et al. [6], there is also concern that the non-delivery of products that have been ordered will have a negative impact on online shopping attitudes. Consumers can also feel dissatisfied if the size of the product ordered needs to be more accurate. This can happen because there are many standard clothing sizes, such as US and European standard sizes, which will cause miscommunication when the standards used are not clearly stated to customers in the description of clothing sizes.

4.4.3 The effect of security risk on consumers' online purchase intention

The finding of H3 contradicts the previous studies from Masoud [65] and Ariffin et al. [6]. They both stated that there is a negative relationship between security risk and online purchase intention. In this study, security risk is found to be insignificant. Nevertheless, this result was also found in previous studies by Dai et al. [19] and Arora and Rahul [66]. In a study by Dai et al. [19] perceptions of privacy/security risk are not affected by the online shopping experience for digital and non-digital products. In contrast to perceived product risk and financial risk, it can directly affect product buyers if the product does not perform well or has a higher price than other online retailers. In both scenarios, the buyer experiences instant dissonance and regrets his purchase decision. In contrast, privacy/security risk does not necessarily carry direct harm or consequences to the purchaser. It thus may not be as relevant a construct as the other two types of risk perception. In other words, even though buyers are more concerned about privacy issues related to online shopping, it still does not affect their purchasing decisions for certain transactions [19]. Then, Arora and Rahul [66] added that security risks are now lower because e-banking transactions are safer. Several passwords secure every online transaction to be able to use e-banking. What is more, now e-commerce websites also have the option to 'continue as guest' and are not required to fill in details of the consumer's personal information other than basic contact details. Because

transactions in e-commerce are widespread in metropolitan cities of India, consumers no longer need to provide their basic personal information [66].

4.4.4 The Effect of time risk on consumers' online purchase intention

The finding of H4 aligns with the previous research by Almousa [67], consumers in Saudi Arabia perceive higher time risks when shopping for clothing products via the Internet. This is because consumers in the country make all purchases online across borders, as there are no online apparel vendors in Saudi Arabia. International shipments take more time to deliver, and there is a greater chance of delays in receiving the goods or non-delivery of the goods. Zhang et al. [52] also added that "time risk greatly affects online consumer buying behavior. Consumers find that buying products online can be a waste of time. This is because no precise search engine fulfills the specific desired product. Therefore, consumers spend most of their time searching for websites to satisfy their wants and needs. Coupled with the complicated ordering method, it takes more time". In addition, consumers tend to be impatient to wait for their products to arrive at their address immediately after placing an order [6].

4.4.5 The effect of social risk on consumers' online purchase intention

The finding of H5 is contrary to the previous findings from Ko, et al. [68] and Bhatti and Rehman [69]. They both stated that social risk negatively affects consumers' online purchase intention. Even so, this finding aligns with the previous research by Masoud [66] found that perceived social risk did not affect online shopping. In addition, this also shows that shopping online does not result in the judgment or approval of family members because it is solely a consumer's decision to purchase through an online store. The decision to shop online also does not determine the characteristics of the people around consumers because it has become the norm for people from all walks of life to start tending to use technology to shop. In addition, products purchased online do not need to be acknowledged by relatives and friends because this is based on individual preferences and tastes. Therefore, it can be concluded that social risk does not perceive consumers' purchase

intention to shop online [6]. Likewise, in research by Andrian and Selamat [70], where it was found that social risk did not affect online purchase intentions in Indonesia.

4.4.6 The effect of psychological risk on consumers' online purchase intention

Lastly, the finding of H6 is also contrary to the previous studies from Bhunkya and Singh [12] and Ariffin et al. [6]. which the findings from their studies stated that psychological risk has a negative effect on online purchase intention. However, the result of this study aligns with Featherman and Pavlou [11]. They found that psychological risk was the only perceived risk with the lowest impact. This was also found in a study by Pi and Sangruang [71] that the perception of psychological risk was not statistically significant. Although considered an important risk perception that influences consumer behavior, this study did not find any effect. This can be caused by the respondents' research object, brand, product category, and lifestyle [71]. Zheng et al. [13] also found that psychological risk does not significantly affect the intention to buy clothes online.

5. CONCLUSION

This study's main goal is to examine perceived risk's effect on consumer's online purchase intention. In addition, this study involves six factors of perceived risk, namely, financial risk, product risk, security risk, time risk, social risk, and psychological risk, as the variables that affect the consumer's online purchase intention. These six variables have been hypothesized to have a significant and negative impact on consumer's online purchase intentions (H1, H2, H3, H4, H5, H6). Nevertheless, this study's result indicates that only two variables (product risk and time risk) have negative and significant effects on consumers' online purchase intention. Meanwhile, the other four variables (financial risk, security risk, social risk, and psychological risk) are insignificant.

Theoretically, this research is helpful to enrich and add to the literature in the marketing field. The results of research on the effect of perceived risk with six risk variables (financial risk, product risk, security risk, time risk, social risk, psychological risk) on online consumer buying interest are expected to provide benefits to the parties concerned, such as the Zalora company and various other online businesses.

Based on the results of this study, product risk, and time risk were found to have a negative effect on online purchase intention. Meanwhile, the other four variables, namely financial risk, security risk, social risk, and psychological risk, did not affect online purchase intention. Therefore, online business people can use this research as a reference in developing marketing strategies. Perceived risk can be handled by gaining the trust of consumers. If consumers believe in the company, then consumers will likely have a higher purchase interest. Thus, company managers need to create various marketing strategies to gain the trust of these consumers.

This research was not specifically designed to evaluate factors related to the moderator and mediator effects of perceived risk and online purchase intentions. Thus, it is suggested for the future researchers to add mediator for this research model.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Doods WB, Monroe KB, Grewal D. Effects of price, brand, and store information on buyers' product evaluations. *Journal of Marketing Research*. 1991;28:307-319.
2. Roy P, Datta D. Determinants of consumer buying behaviour towards online and offline shopping. *International Journal for Research in Engineering Application & Management*. 2022;8(3).
3. Meskaran F, Ismail Z, Shanmugam B. Online purchase intention: Effects of trust and security perception. *Australian Journal of Basic and Applied Sciences*. 2013;7(6): 307-315.
4. George JF. The theory of planned behavior and Internet purchasing. *Internet Research*. 2004;14(3):198-212.
5. Fishbein M, Ajzen I. Belief, attitude, intention, and behavior: An introduction to theory and research. *Journal of Business Venturing*. 1977;5:177-189.
6. Ariffin SK, Mohan T, Goh YN. Influence of consumers' perceived risk on consumers' online purchase intention. *Journal of Research in Interactive Marketing*; 2018.

7. Heijden F, Tuquerres G, Regtien PPL. Time-of-Flight estimation based on covariance models. *Measurement Science and Technology*. 2003;14(8):1295-1304.
8. Park S, Tussayadiyah IP. Multidimensional facets of perceived risk in mobile travel booking. *Journal of Travel Research*. 2016;56(7).
9. Kanade VS, Kulkarni MP. M. Understanding consumer buying behavior in an online (Web store) and offline (Service Retail store) for entertainment services in Nashik City. *Purakala*. 2020; 31(21).
10. Chiu CM, Wang ET, Fang YH, Huang HY. Understanding customers' repeat purchase intentions in B2C e-commerce: The roles of utilitarian value, hedonic value and perceived risk. *Information Systems Journal*. 2014;24(1).
11. Featherman MS, Pavlou PA. Predicting e-services adoption: A perceived risk facets perspective. *Int. J. Human-Computer Studies*. 2003; 59:451-474.
12. Bhukya R, Singh S. The effect of perceived risk dimensions on purchase intention. *American Journal of Business*. 2015;30(4): 218-230.
13. Zheng L, Favier M., Huang P, Coat F. Chinese consumer perceived risk and risk relievers in e-shopping for clothing. *Journal of Electronic Commerce Research*. 2012; 13:262-263.
14. Tham KW, Dastane O, Johari Z, Ismail NB. Perceived risk factors affecting consumers' online shopping behaviour. *Journal of Asian Finance, Economics and Business*. 2019;6:245-256.
15. Hsien M, Tsao W. Reducing perceived online shopping risk to enhance loyalty: Website quality perspective. *Journal of Risk Research*. 2014;17(2):241-261.
16. Soltanpanah, H., Shafe'ei, R., & Mirani, V. A review of the literature of perceived risk and identifying its various facets in e-commerce by customers: focusing on developing countries. *African Journal of Business Management*. 2012;6:2888-2896.
17. Hsu SH, Bayarsaikham BT. Factors influencing on online shopping attitude and intention of mongolian consumers. *International Journal of Management Studies*. 2012;5.
18. Liao Z, Cheung MT. Internet-based e-shopping and consumer attitudes: An empirical study. *Information & Management*. 2001;38(5):299-306.
19. Dai B, Forsythe S, Kwon W.-S. The impact of online shopping experience on risk perceptions and online purchase intentions. *Journal of Electronic Commerce Research*. 2014;15.
20. Handayani PW, Nurahmawati RA, Pinem AA, Azzahro F. Switching intention from traditional to online groceries using the moderating effect of gender in Indonesia. *Journal of Food Products Marketing*. 2020;26(6):425-439.
21. Forsythe SM, Shi B. Consumer patronage and risk perceptions in internet shopping. *Journal of Business Research*. 2003; 56(11):867-875.
22. Dowling GR. Perceived risk: The concept and its measurement. *Psychology and Marketing*. 1986;3:193-210.
23. Shang Q, Pei G, Jin J. My friends have a word for it: event-related potentials evidence of how social risk inhibits purchase intention. *Neuroscience Letters*. 2017;643:70-75.
24. Stone RN, Grønhaug K. Perceived risk: further considerations for the marketing discipline. *European Journal of Marketing*. 1993;27:39-50.
25. Arslan Y, Gecti F, Hayrettin Z. Examining perceived risk and its influence on attitudes: A study on private label consumers in turkey. *Journal of Asian Social Science*. 2013;9(4):158-156.
26. Wadud A. *Qur'an Menurut Perempuan: Membaca kembali kitab suci dengan semangat keadilan*. Jakarta: Serambi Ilmu Semesta. 2006;1:90-91. Indonesian.
27. Bauer, R. A. Risk Taking and Information Handling in Consumer Behavior. *Consumer Behaviour as Risk Taking*. 1967:22-33.
28. Dowling GR, Staelin RA model of perceived risk and intended risk-handling activity. *Journal of Business Research*. 1994;21:119-134.
29. Pires G, Stanton J, Eckford A. Influences on the perceived risk of purchasing online. *Journal of Consumer Behavior*. 2004;4: 118-131.
30. Akram U, Junaid M, Zafar AU, Li Z, Fan M. Online purchase intention in Chinese social commerce platforms: Being emotional or rational? *Journal of Retailing and Consumer Services*; 2021.

31. Li N, Zhang P. Consumer online shopping attitudes and behavior: an assessment of research. *AMCIS 2002 Proceedings*. 2004; 74.
32. Chen YH, Hsul C, Lin CC. Website attributes that increase consumer purchase intention: A conjoint analysis. *Journal of Business Research*; 2010.
33. Iqbal S, Rehman K, Hunjra AI. Consumer intention to shop online: B2C e-commerce in developing countries. *Middle East Journal of Scientific Research*. 2012;12.
34. Naovarat S, Juntongjin P. Factor that affecting success of E-marketplace in Thailand. In: 2015 International Conference on Computer Science and Information Systems (ICCSIS-15), April. 2015:24-25.
35. Cox DF, Rich SU. Perceived risk and consumer decisionmaking-the case of telephone shopping. *Journal of Marketing Research*; 1964.
36. Wei Y, Wang C, Zhu S, Xue H, Chen F. Online Purchase intention of fruits: antecedents in an integrated model based on technology acceptance model and perceived risk theory. *Front. Psychol*. 2018;9.
37. Rahman S, Khan MA, Iqbal N. Motivations and barriers to purchasing online: understanding consumer responses. *South Asian J. Bus. Stud*. 2018;7:111-128.
38. Maignan I, Lukas BA. The Nature and social uses of the internet: A Qualitative Investigation. *Journal of Consumer Affairs*. 1997;31(2):346-371.
39. Popli A, Mishra S. Factors of perceived risk affecting online purchase decisions of consumers. *Pacific Business Review International*. 2015;8:49-58.
40. Bhatti A, Saad S, Gbadebo SM. Convenience risk, product risk, and perceived risk influence on online shopping: Moderating effect of attitude, Science Arena Publications International *Journal of Business Management*. 2018;3(2):1-11.
41. Kim D, Ferrin D, Rao JA trust-based consumer decision-making model in electronic commerce: The role of trust, perceived risk, and their antecedents. *Decision Support Systems*. 2008;44:544-564.
42. Bhatnagar A, Ghose S. Segmenting consumers based on the benefits and risks of Internet shopping. *Journal of Business Research*. 2004;57(12).
43. Jarvenpaa S, Noam T. Consumer trust in an internet store: A Cross-Cultural Validation. *Journal of Computer-Mediated Communication*.1999;5(2).
44. Bhatti A, Akram H. The moderating role of subjective norms between online shopping behaviour and its determinants. *International Journal of Social Sciences and Economic Review*. 2020;2(1).
45. Youn S. Teenagers' perceptions of online privacy and coping behaviors: a risk-benefit appraisal approach. *Journal of Broadcasting and Electronic Media*. 2005; 49:86-110.
46. Karnik S. A study of dimensions of consumer's perceived risk and their influences on consumers buying behaviour. *Altius Shodh Journal of Management and Commerce*. 2014;1:162-169.
47. Teo TS. Attitudes toward online shopping and the internet. *Behavior and Information Technology*. 2004;21.
48. Mathur N. Perceived risks towards online shopping: An empirical study of Indian customers. *International Journal of Engineering Development and Research*. 2015;3(2):296-300.
49. Aghekyan-Simonian M, Forsythe S., Kwon WS, Chattaraman V. The role of product brand image and online store image on perceived risks and online purchase intentions for apparel. *Journal of Retailing and Consumer Services*. 2012;19(3):325-331.
50. Forsythe S, Liu C, Shannon D, Gardner LC. Development of a scale to measure the perceived benefits and risks of online shopping. *Journal of Interactive Marketing* 20. 2006;(2):55-75.
51. Cases AS. Perceived risk and risk-reduction strategies in Internet shopping. *The International Review of Retail, Distribution and Consumer Research*. 2001;12(4):375-394.
52. Zhang L, Tan W, Xu Y, Tan G. Dimensions of consumers' perceived risk and their influences on online consumers' purchasing behaviour. *Communications in Information Science and Management Engineering*. 2012;2:8-14.
53. Schiffman LG, Kanuk LL. *Consumer Behavior*. Pearson Prentice Hall; 2010.
54. Solomon MR, Rabolt NJ. *Consumer Behavior in Fashion*. Prentice Hall; 2004.

55. Jacoby J, Kaplan L. The components of perceived risk. *Advances in Consumer Research*. 1972;59:287-291.
56. Pentz CD, Preez RD, Swiegers L. To buy or not to buy: Perceived risk barriers to online shopping among South African generation Y consumers. *Cogent Business & Management*; 2020.
57. Bernard HR. *Research methods in anthropology: Qualitative and quantitative approaches* (3rd Ed.). Walnut Creek, CA: Alta Mira Press; 2002.
58. Anderson RE, Babin BJ, Hair JF, Black WC. *Multivariate Data Analysis*. Cengage; 2019.
59. Ghozali I. *Aplikasi analisis multivariat dengan program SPSS*. Badan Penerbit Universitas Diponegoro. 2011. Indonesian.
60. Sekaran U, Bougie R. *Research Methods for Business: A Skill-Building Approach* (7th ed.). Wiley & Sons, West Sussex; 2016.
61. Ghozali I. *Aplikasi Analisis Multivariate dengan Program IBM SPSS 25*. Badan Penerbit Universitas Diponegoro: Semarang. Indonesian; 2018.
62. Ghozali I. *Aplikasi Analisis Multivariate dengan Program IBM SPSS*. Universitas Diponegoro.. Indonesian; 2012.
63. Çemberci M, Sözer EG, Civelek ME. The determinants of intention to shop online and effects of brand equity on e-store patronage. *Journal of Global Strategic Management*. 2013;13(7).
64. Mamman H, Maidawa M, Saleh M. *Effects of Perceived Risk on Online Shopping*. Research Gate. 2015.
65. Masoud EY. The Effect of perceived risk on online shopping in Jordan. *European Journal of Business and Management*. 2013;5.
66. Arora N, Rahul M. The role of perceived risk in influencing online shopping attitude among women in India. *Int. J. Public Sector Performance Management*. 2018;4.
67. Almousa M. Perceived risk in apparel online shopping: A multi-dimensional perspective. *Canada Social Science*. 2011;7:23-21.
68. Ko HJ, Jung JM, Kim JY, Shim SW. Cross-cultural differences in perceived risk of online shopping. *Journal of Interactive Advertising*. 2004;4:20-29.
69. Bhatti A, Rehman SU. Impact of social risk, government and psychological factors with moderator cultural factors on online shopping behavior in Pakistan. *Pakistan Journal of Humanities and Social Sciences*. 2019;7:31-44.
70. Andrian A, Selamat F. The Influence of Consumer's Perceived Risk on Consumer's Online Purchase Intention in Indonesia. *Atlantis Press*. 2021;655.
71. Pi SM, Sangruang J. The Perceived Risk of Online Shopping in Taiwan. *Social Behavior and Personality*. 2011;39(2):275-285.
72. Haider A, Nasir N. Factors affecting online shopping behavior of consumers in Lahore, Pakistan. *Journal of Management Engineering and Information Technology*. 2016;3(6):9-14.
73. Dastane O, Jalal BM., Ifwan M, Selvaraj K. Assessment of extended ES-Qual model in an mcommerce setting. *International Journal of Management, Accounting and Economics*. 2018;5(12):923-954.
74. Wong SW, Dastane O, Safie N, Maarif Y. What WeChat can learn from WhatsApp? Customer value proposition development for mobile social networking Apps: A case study approach. *Journal of Theoretical and Applied Information Technology*. 2019; 97(4):1091-1117.
75. Thompson T, Liu J. Consumer trust in electronic commerce in the United States, Singapore and China. *Omega International Journal of Management Science*. 2007: 35:22-38.
76. Martins J, Costa C, Oliveira T, Gonçalves R, Branco F. How smartphone advertising influences consumers' purchase intention. *Journal of Business Research*; 2017.
77. Liao T, Keng C. Online shopping delivery delay: Finding a psychological recovery strategy by online consumer experiences. *Journal of Computers in Human Behaviour*. 2013;29(4):1849-1861.
78. Rogerwilco. The R34bn opportunity cost of online cx. (Online); 2019. Available:<https://www.rogerwilco.co.za/blog/2019-south-african-digital-customer-experience-report> Access on June 3, 2023.
79. Han MC, Kim Y. Why consumers hesitate to shop online: Perceived risk and product involvement on taobao.com. *Journal of Promotion Management*. 2017;23:24-44.
80. Pappas N. Marketing strategies, perceived risks, and consumer trust in online buying behaviour. *Journal of Retailing and Consumer Services*. 2016;92-103.

81. Albert K. Metode Riset untuk Ekonomi dan Bisnis: Teori, Konsep, dan Praktik Penelitian Bisnis. Alfabeta. Indonesian; 2014.
82. Arifin Z. Penelitian pendidikan metode dan paradigma baru. Bandung: Remaja Rosda Karya.. Indonesian; 2012
83. Monica N. Pengaruh Kondisi keuangan wajib pajak terhadap hubungan antara persepsi wajib pajak tentang kualitas pelayanan fiskus dengan kepatuhan wajib pajak (Studi Empiris terhadap WPOP di Kota Bukittinggi). *Jurnal Akuntansi.. Indonesian*; 2013.

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