

Influence of Website Attributes on Consumer's Online Purchase Intention in Malaysia

Omoloju Mariam Adedoja, Siti Rahayu Hussin & Wong Foong Yee

School of Business and Economics, Universiti Putra Malaysia.

Email: gs57997@upm.edu.my, rahayu@upm.edu.my, fywong@upm.edu.my

To Link this Article: <http://dx.doi.org/10.6007/IJARBS/v12-i11/15143> DOI:10.6007/IJARBS/ v12-i11/15143

Published Date: 13 November 2022

Abstract

Due to the global pandemic of COVID-19, the world has faced the difficulties in conducting business activities. The COVID-19 pandemic has interrupted shopping activities in Malaysia as consumers are steadily switching from offline to online purchases. Due to lockdown and social distancing, the closure of physical stores led consumers to shop via different websites in Malaysia. The research aimed to investigate the specific website attributes influencing consumers online purchase intention in Malaysia. An online survey was used to collect data from 384 respondents. For the purpose of this study, convenience sampling method was adopted. The questionnaire was designed on a five-point likert scale. The findings from the Pearson Correlation analysis showed that consumers intention to purchase via a website had a positive and significant relationship with website convenience ($r=0.875$, $p<0.01$), website speed ($r= 0.863$, $p<0.05$), website design ($r=0.877$, $p<0.01$), and website security ($r= 0.871$, $p<0.05$). The result of the regression analysis indicated that the model contributed a total of 79% and website design appears to be the most significant attribute that influence consumers' intention to purchase online. Hence, the findings suggest that website managers should prioritize the interface of their website, including its structure and contents. This study further recommends future researchers to look into other attributes that could be affected by mediator variables such as cultures, religions, which are not tested in this study.

Keywords: Website Attributes, Purchase Intention, Online Shopping, Perceived Convenience, Perceived Usefulness

Introduction

Background

The developments of the internet and the worldwide web (WWW) are both incredibly significant breakthroughs in the field of information communication technology (ICT), which is critical in e-commerce (Yuan et al., 2021). E-commerce has overtaken the retail industry due to its convenience to consumers and sellers. Widiandita and Ketut (2020) have shown that e-commerce has helped to reduce the distance between producers and consumers because consumers can make purchases directly to producers. Although the online retail

model may still require the interventions of intermediaries, they are less labor-intensive, thus reducing the overall costs.

Due to the global pandemic of COVID, the world has faced the difficulties in conducting business activities and resulted in massive forced changings in the behavior of the consumers with immediate effect (Al-maitah et al., 2021). Al-maitah et al (2021) have described in their study that research published by “Business Insider Intelligence and E-Marketer analysts” in March 2020 suggests that 76% of consumers in the UK, 50% of Chinese consumers, and 82 % of the consumers of USA prefer to buy online from different stores and website instead of buying from markets or physically visiting stores. Melissa (2020) investigated in their research how the online purchasers are responding after COVID pandemic, and identified that the number of the online buyers is increasing at a higher pace during and after the COVID pandemic.

According to the figures demonstrated in the graph below, the number of the online shoppers around the world has increased during COVID from 1.9 billion to 2.04 billion in the year 2020 (Statista, 2022).

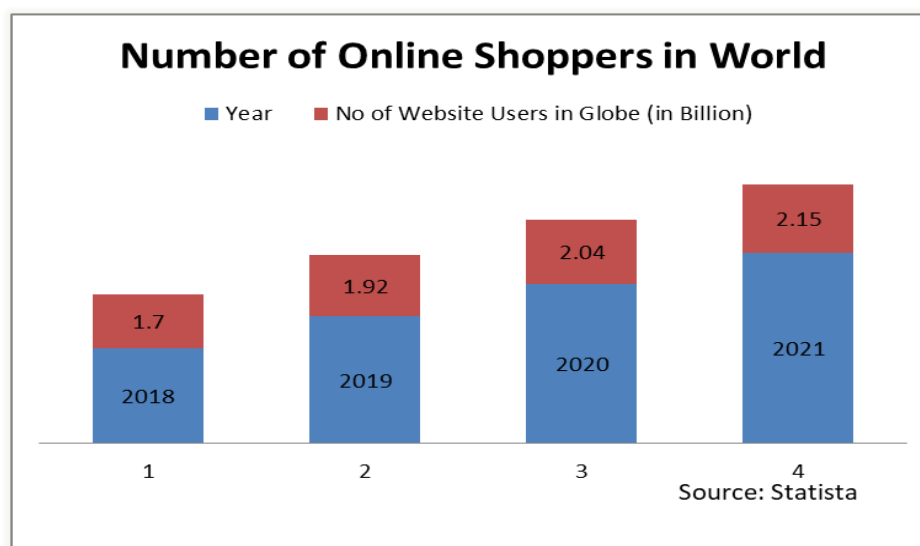


Figure I “Number of Online Shoppers in the World”

The year 2020 was indeed one of the most challenging seasons for the Malaysian economy as the country faced significant challenges in dealing with the COVID-19 pandemic that has spread across the country. Due to global economic problems and border closures, the country's GDP recorded a decrease of -5.6%. However, the Malaysian government has made great strides with the recently launched My Digital initiative and the Malaysian Digital Economy Plan (Enduring, 2021).

According to Digital Malaysia (2020), the active online shoppers in Malaysia include approximately 50% of the Malaysian population, and 82.9 % of mobile users in Malaysia used their devices to shop online in Malaysia from different online websites after COVID in 2020. The graph below is demonstrating the number of online shoppers in Malaysia.



Source: Statista, e-Commerce Malaysia, User in millions

Figure II “Number of Online Shoppers in Malaysia”

The graphical analysis of the website conversion rate in Malaysia has provided the evidence regarding the improvement of the performance of the Malaysian websites before, during, and after the COVID-19 pandemic.

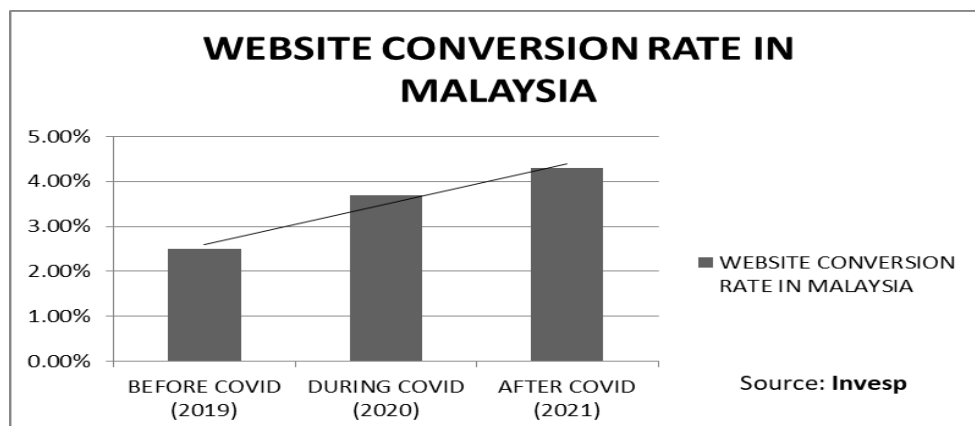


Figure III “Website Conversion Rate in Malaysia”

According to Boon et al (2021), Shopee is the most famous shopping website in Malaysia, where millions of users prefer to buy online on a daily basis. They confirmed in their study that due to the COVID pandemic, the online purchasers in Malaysia prefer to buy online from different shopping websites, including Shopee, Lazada, and Carousell. The graph below confirms that number of the monthly web visits on Shopee in Malaysia has increased from first quarter of 2019 to first quarter of 2021.



Figure IV “Number of Visits on Shopee in Malaysia”
(Statista, 2022)

The environment of online shopping is changing rapidly, and these changes are further spurred by the COVID-19 pandemic (Koch et al., 2020). In order to keep up with the changes, companies should adopt and calibrate their marketing strategies. This is a timely and urgent exercise for the Malaysian context, where online shopping is growing at a rapid rate and gaining popularity with a strong potential with future generations (Muda et al., 2016).

Problem Statement

E-commerce has changed the business patterns with manufacturers, distributors, and consumers using the internet as a useful tool for communication. Hence, it is important to know how consumers leverage the features of a website to make purchase decisions. Website convenience is an important feature consumers consider before making purchases online. It is the backbone of e-commerce and a huge reason that online shopping has boomed over the last few years (Smart Insights, 2020). According to a study carried out by Smart Insights (2020), it was reported that 97% of consumers were found to have backed out of making purchases because of website inconvenience. This means that a website inconvenience will likely result in an abandoned cart. This has prompted the current study to look into website convenience as consumers are looking for something that will set brands apart.

Moreover, with the abundance of available online resources to choose from, consumers are getting less tolerant about slow-loading websites (Rubab & Shoukat, 2018). Slow-loading websites are therefore a major frustration and turnoff for online shoppers. The issue of website loading speed is very important in e-commerce as online shoppers expect fast-loading website pages (Arif et al., 2016). Website loading time is a major contributing factor to page abandonment. Hence, it is very important for the current study to look into how website speed influences consumer’s online purchase intention.

Further, Website design is also an important website feature in e-commerce. It refers to the way in which the content of the website is presented to the customers (Azureen et al., 2012). Until now, companies tend to use traditional forms of advertising that do not take into account the interactive features of the website (Weng et al., 2020). In a full network structure, a page is linked to all other pages on the website (Prasetyo et al., 2018). This enables the website visitors to navigate through available information on the website but at the cost of complexity. Hence, there is a need for a study to be carried out concerning how search

function, graphical information, and navigation structure for each page on the website influence the purchase intention of consumers.

Another cited concern about online consumers purchasing via websites is the security of financial transaction made while purchasing an item. Websites use a number of mechanisms to gather information about their visitors. However, a number of shoppers have expressed their concerns over potential misuse of their personal information and privacy. In the past few years, several technical advancements have been made to strengthen the security of transactions made via websites. However, despite these developments; consumers are still concerned about making financial transactions via website. Hence, this study seeks to find if website security has an influence on consumer's online purchase intention.

Objectives

The specific objectives of this research were:

- i. To determine the influence of website convenience on online purchase intention among consumers in Malaysia
- ii. To determine the influence of website speed on online purchase intention among consumers in Malaysia
- iii. To determine the influence of website design on online purchase intention among consumers in Malaysia
- iv. To determine the influence of website security on online purchase intention among consumers in Malaysia

Literature review

This part reviews the literature and relationships between the study variables, namely consumer's online purchase intention and website attributes.

E-commerce

E-commerce has grown significantly in the recent years. The process of buying products online begins when a seller advertises them on their website, and customers can then evaluate the features and prices of the goods. According to Mofokeng (2021), this is the reason why e-commerce is becoming more prevalent. Wei et al (2018) stated that the rise of online purchase platforms has greatly improved the quality of life for humans. E-commerce attributes can be used to increase the likelihood of making substantial sales.

Technology Acceptance Model

Of the different theories that can be used to explain online shopping, none plays a more critical role than the "Technology Acceptance Model" (TAM). The TAM was developed in the 1960s and is a psychological theory that helps us to understand why people resist, rejects, or accept new technologies. The TAM explains attitudes towards information systems and predicts user's intention and adoption, and it is the most broadly used theoretical system in information systems (Bign-Alcaniz et al., 2008).

According to Davis (1992), online shopping behavior is influenced by two external variables which are: perceived usefulness and perceived ease of use. These two external variables are found to be a significant factor that affects consumer purchase intention to use electronic commerce.

Perceived Usefulness

Ramayah et al (2013) stated that in the context of online shopping, perceived usefulness can be defined as the extent to which a consumer believes that online shopping enables them to acquire useful information, creates ease of comparison while shopping as well as help their shopping activities quicker.

Perceived Ease of Use

Perceived ease of use has been proven to influence the use of computer and internet indirectly through perceived usefulness (Davis, 1989). According to Davis (1989), it was found that perceived ease of use is an important and vital antecedent in determining online consumer behavior through behavioral attitude.

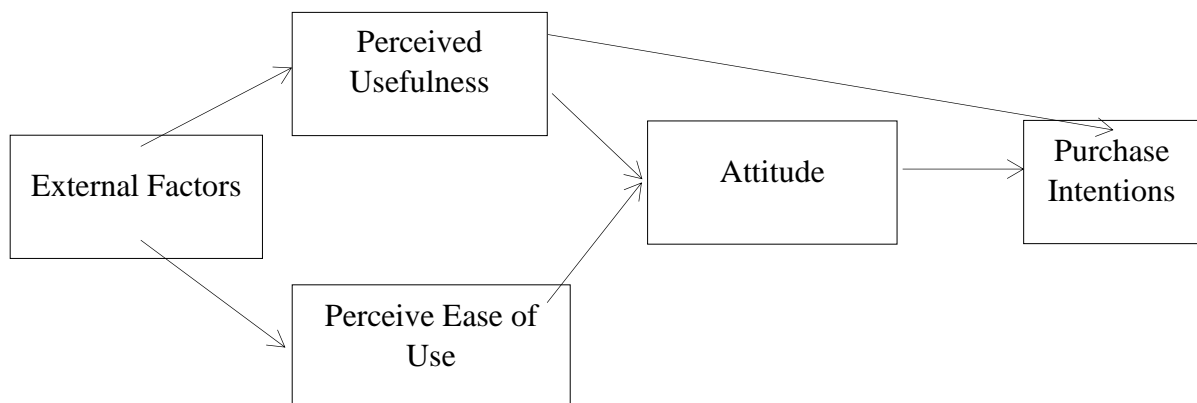


Figure V “Technology Acceptance Model (TAM)”

Source: Fred Davis (1989)

Preliminary research suggest that research on TAM adoption in e-commerce suggests that website convenience, website security, website interactivity/speed and website functionality/design has an influence on the perceived usefulness and ease of use in the TAM (Chang et al., 2012; Tahar et al., 2020; Abdullah et al., 2016; Tandon et al., 2016). This article does provide legitimacy for the extended model that includes the four variables of interest in the study.

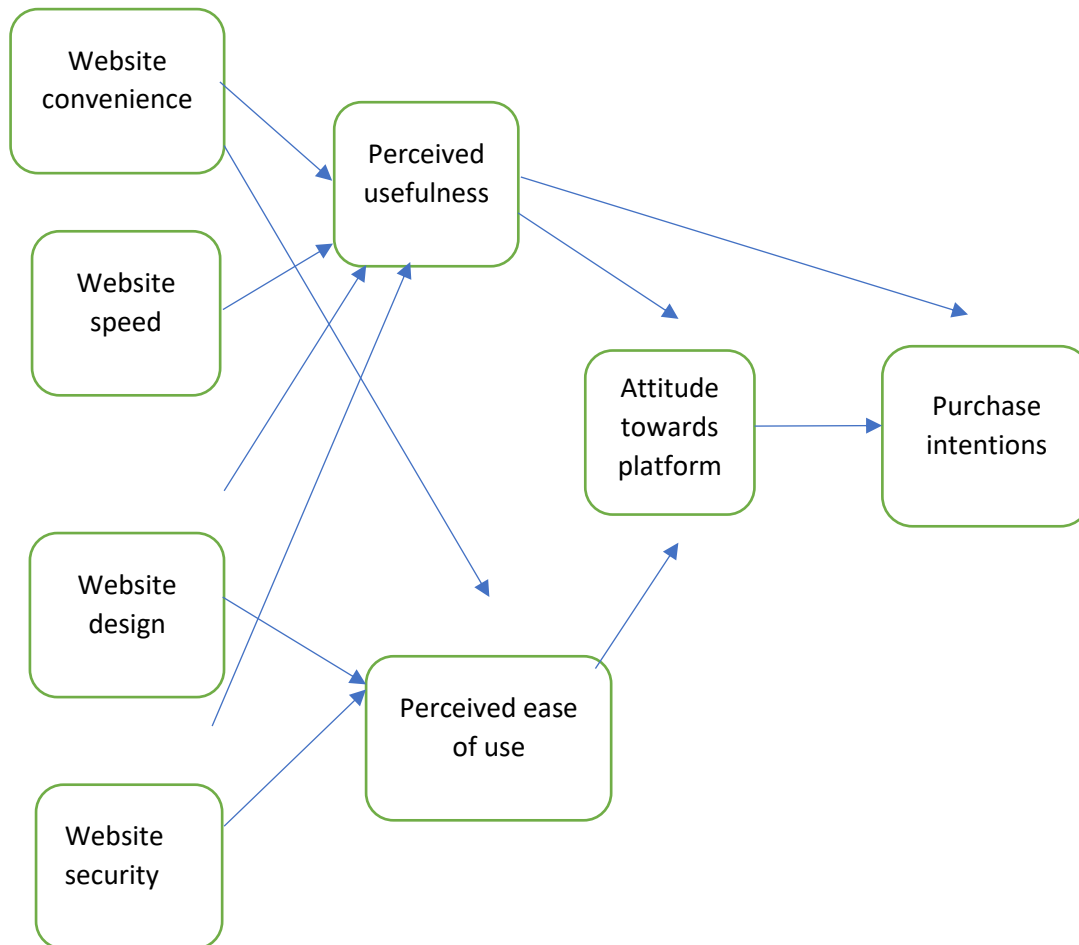


Figure VI “Factors Affecting Purchase Intention”

Consumer Online Purchase Intention

Fishbein and Ajzen (1975) explained that the Theory of Reasoned Action (TRA) provided the base for studying the roots of behavioral intentions. The extension of the Theory of Reasoned Action (TRA) includes the Theory of Planned Behavior (TPB) and the Technology Acceptance Model (TAM). The TAM was first introduced by Davis (1986) to predict the behavior of humans regarding the adoption of technology (Neil & Walter, 2016).

According to Billy et al (2003), consumers’ intention can be defined as the predictor of the actual behavior of the individual. Paul & Rana (2012) explained the importance of online consumer purchase intention by identifying Malaysian consumers as comprising highest number of online shoppers among the Southeast Asian countries. Another past study stated that 86% of the Malaysian total population is now using the internet, with more than 29 million users in 2022 (Statista, 2022).

The graph below shows Malaysia’s active internet users as a percentage of the total population (Statista, 2022).

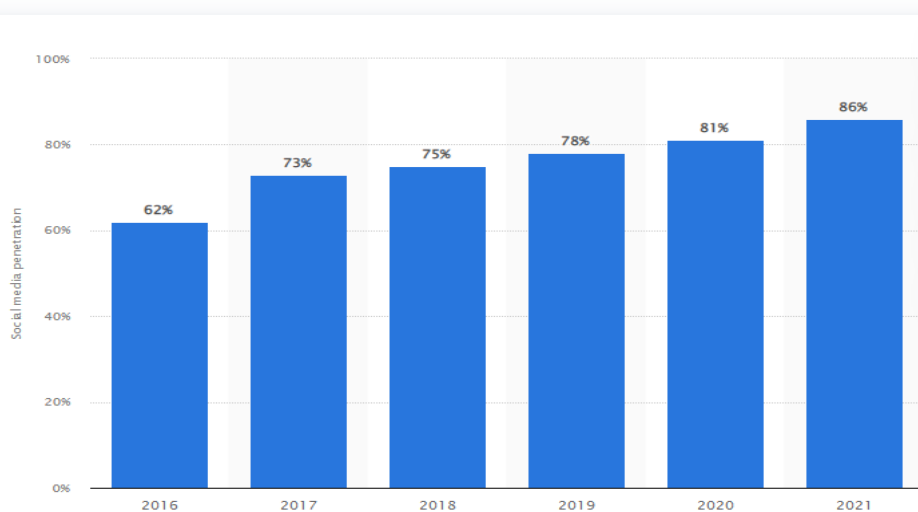


Figure VII “Active Internet Users of Malaysia as a Percentage of the Total” Population

The graph below shows the population of internet users in Malaysia has increased to 29 million in 2022 and is expected to increase to 30.77 million in 2025 (Statista, 2022).

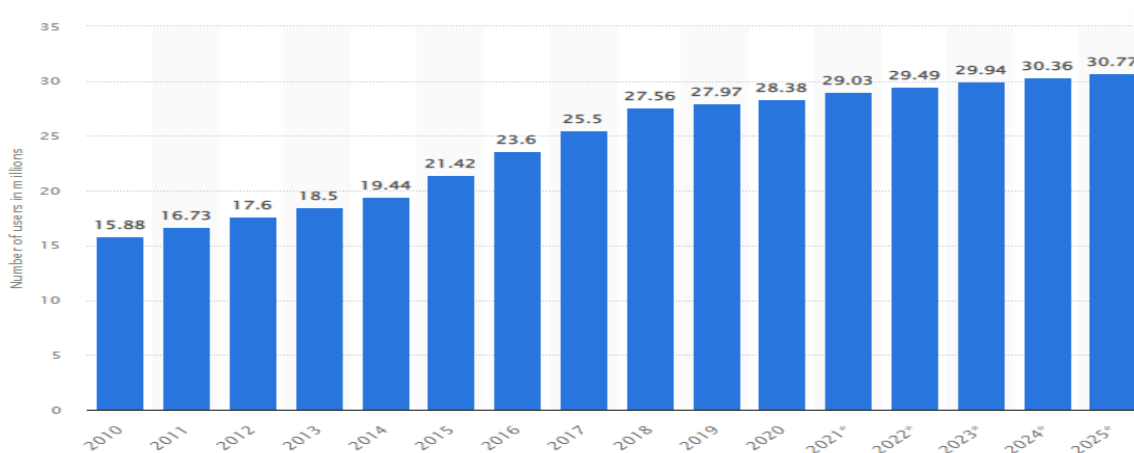


Figure VIII “The Population of Malaysian Internet Users (in Millions)”

Wong (2014) conducted a survey and stated that 91% of internet users in Malaysia prefer to buy commodities and services online through different websites. The concerns of the consumers associated with online purchases are also increasing nowadays with the number of online consumers in Malaysia.

Website Attributes

The attributes of websites can have an influence on the willingness of consumers to purchase via websites.

Website Convenience

According to Saad (2020), website convenience is one of the main factors that influence the choices of consumers when it comes to online stores. In particular, the study noted that

delivery time, condition of the items were the main considerations that consumers checked. Another study by Kumar et al (2018) also noted that website convenience dimensions are important in influencing consumer's purchasing intention. Understanding the influence that website convenience as an attribute can have on the online purchase intention of consumers in Malaysia will help in expanding the knowledge of the field by researching Malaysian consumer preferences.

Website Speed

While some website managers may sometimes overlook this, website speed plays a very critical role in the perception of consumers and the ability to convert visits into sales. In e-commerce, it is sometimes referred to as website latency. Busalla et al. (2021) conducted a study and noted that user satisfaction rates decline substantially whenever there are small increases in the amount of waiting times. Stringam and Gerdes (2019) also noted that load times were a service gap that influenced the consumer experiences. When websites do not have speedy loading times on their pages, it adversely affects consumer's willingness to order from these websites or to make reservations.

Website Design

Website design also influences consumer perceptions. A study by Nguyen et al (2019) examined website design for online stores using TAM and found that the ease of use of the website, the ability to navigate, and reliability are some important factors influencing consumers. These factors can convince consumers to use a website or dissuade them from using one. Pandey and Parmar (2019) highlighted several factors that influenced consumer online shopping behavior. One of the main factors, in this case, was the website design. The article noted that aesthetically appealing website and the ease of navigation are some aspects of website design that may influence the factors.

Website Security

E-commerce security is a framework that enables merchants to secure their online transactions. It is becoming increasingly important for businesses and consumers alike. According to Kılıçalp and Ozdogan (2019), website security is an essential component of any operation of e-commerce business. Not having the necessary security features on a website can lead to numerous problems, such as fraud, phishing, and data breaches. Having the right security tools can help a platform gain the trust of customers and safeguard their sensitive data. According to Barkatullah and Djumadi (2018), consumers will be less likely to use a website whose reputation has been tarnished by security issues. Research on how the website security of online stores in Malaysia can influence consumer intentions will be a new addition to the existing literature in the field.

Conceptual Framework and Hypothesis Development

The TAM was the baseline model used to conduct this research. The dependent variable in this study was the online purchase intention, and the independent variables of the study include website convenience, website speed, website security, and website design.

Online Purchase Intention and Website Convenience

Online shopping activity among Malaysian consumers has increased unexpectedly in the last decade. Chen et al (2010) identified intention as the conscious effort made by an individual

that helps to demonstrate his/her actual behavior. Berry et al (2002) conducted a study to develop the relation between the online purchase convenience and the intention to buy the products online through websites. The researcher found a positive relationship between the website convenience and the intention to buy the products online. Another previous study has confirmed the positive and significant relationship between the website convenience and intention to purchase online through different websites (Cho et al., 2022). After analyzing the previous studies, the following hypothesis was developed:

H1: Website convenience has a significant and positive influence on the consumer intention to purchase online in Malaysia

Online Purchase Intention and Website Speed

Website speed is defined as the measurement of the exact speed of the loading of website contents (Heijden et al., 2003). Heijden et al (2003) provided evidence regarding the association between the speed of a website and online purchase intention. According to a report published by Google, 92% of the consumers prefer to achieve their goals on websites that load quickly compared to websites with lower speeds (Google, 2021). Lee and Lin (2004) have also explained that consumers will prefer to buy from websites whose speeds are better than those whose speed are not up to date (Lee & Lin, 2004).

After reviewing the literature, the following hypothesis was proposed:

H2: The speed of the website has a positive influence on the consumer intention to purchase online in Malaysia

Online Purchase Intention and Website Design

Paulo et al (2019) explained that in online businesses, customer online purchase intention, repurchase intention, and store revisit intention are all dependent upon the design of the website. Boudhayan et al (2010) performed a research in Canada to find out the relationship between the website design and the intention to purchase. The regression analysis confirmed that website design exerts a positive influence on the consumer's intention to purchase in Canada by reducing the perceived risk and enhancing the trust. Pee and Jiang (2018) also confirmed that the positive significant effect of the website design has a significant relationship with the online purchase intention and repurchase intention of the consumers.

After critically reviewing the previous studies, the following hypothesis was proposed:

H3: The design of the website has a positive influence on the consumer intention to purchase online in Malaysia

Online Purchase Intention and Website Security

The online shopping's popularity is increasing at a higher pace due to advancement in technology. However, the security and privacy of buyers' details are still prevailing as major concerns among consumers (Salisbury et al., 2001). Website security refers to the restraining of the consumer's data from being stolen while conducting a transaction online through different websites (Kim Dang et al., 2018). Recently, researchers in Vietnam found that website security helps enhance the trust of the consumers and indirectly helps in enhancing the online purchase intention of consumers (Tran & Nguyen, 2022). From these studies, the following hypothesis was proposed

H4: The website security has a positive influence on the consumer intention to purchase online in Malaysia

Research Methodology

Research Design

Mukherjee (2017) regarded research design as the procedural framework for conducting a study. A descriptive research design was adopted for this study. After developing the relationship between the variables of the study, the following framework was developed to conduct the study.

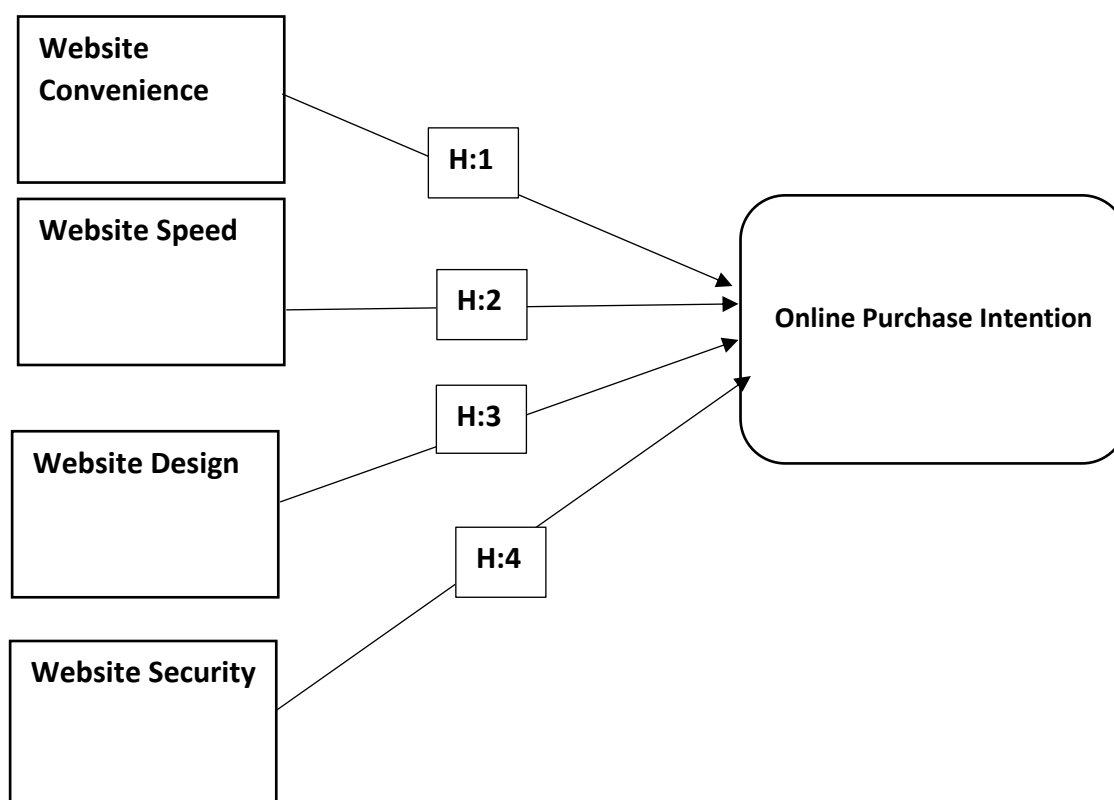


Figure IX "Research Design"

Population of the Study

A study population is described as any individual members, groups, objects, or events relevant to answer the research questions of a study (Ary et al., 2002). According to the World Bank (2020), Malaysia has 32.37 million people. According to Statista (2022), there were approximately 21.82 million Malaysians that are over 18 years old. According to Krejcie & Morgam (1970), when total population is one million or more, the sample size becomes relatively constant at 384. Therefore, the present study chose a sample size of 384 with a 95% confidence level and a 5% margin of error.

Research Instrument and Measures

The table below shows the measurement scale that was used in this research to assess each variable. The measurement items are summarized in *Table 1*.

Table I "Measurement Items"

Variable	Number of Items	Sources
Consumer Intention	7	Zarrad et al., 2012; Kahlil, 2017; Jiang et al., 2012
Convenience	7	Yares et al., 2017; Jiang et al., 2012
Website Speed	7	Limayem et al., 2000; Jiang et al., 2012; Ansari et al., 2017; Hsu et al., 2012
Website Design	7	Hsu et al., 2012; Lin et al., 2012
Website Security	7	Kahlil, 2017; Hille et al., 2015

Data Collection

The convenience sampling method was used to collect data from the respondents. The questionnaire was disseminated through online survey conducted via Google Forms. The data set included 392 participants. All subjects gave their informed consent for inclusion before they participated in the study. The survey was conducted anonymously, and participants were not obliged to answer any personal questions.

Questionnaire Design

A structured questionnaire was used for this study. The instrument allowed the research questions to be answered effectively. The questionnaire was designed on a five-point Likert scale labelled as (1) Strongly Disagree; (2) Disagree; (3) Neutral; (4) Agree; and (5) Strongly Agree. It was divided into two sections. Section A requested the demographic characteristics of the respondents, such as their gender, age, marital status, and level of education. Section B contained questions related to the independent and dependent variables of the study.

Pilot Test

The questionnaire was pilot tested with 30 respondents from students of University Putra Malaysia. The aim of the pilot test was to recognize uncertainties and misconceptions in the research instrument as well as to detect any problems before data collection (Fraen et al., 2012; Mohammad et al., 2015). This allowed validating the instrument prior to undertaking the primary survey, in line with Hill's (1998) recommendation. Cronbach's Alpha was used to test the reliability of the constructs involved in the research. The results of the reliability test of the pilot survey data are shown in *Table II*, whereby all the items showed highly satisfactory Cronbach's alpha values above 0.90 (≥ 0.70), indicating that the model was fit for the study. Therefore, the questionnaire was subsequently deemed valid and suitable for the main data collection.

Table II

“Reliability of Questionnaire Items in the Pilot Test and the Actual Data Collection”

Variable	No. of items	Cronbach's Alpha	
		Pilot Test (30)	Actual (384)
Website Convenience	7	0.948	0.702
Website Speed	7	0.950	0.705
Website Design	7	0.935	0.713
Website Security	7	0.914	0.717
Consumer's Intention	7	0.923	0.716

Data Analysis

For the purpose of this research, the descriptive and inferential statistics were employed to assess the characteristics of the respondents and the relationship between the independent variables (website convenience, website speed, website design, and website security) and the dependent variable (consumer's online purchase intention). Multiple regression analysis was used to observe the influence of website attributes on consumer online purchase intention. The statistical software used for this study was the Statistical Package for Social Sciences (SPSS).

Results and Discussion

The results of the study are given below:

Response Rate

Table III

“Response Rate of Participants”

Question	Frequency	% of Respondents
Retrieved	384	100
Non- Retrieved	0	0.00
TOTAL	384	100

With respect to *Table III*, which indicates the outcome of respondents, out of the three hundred and eighty-four (384) questionnaires distributed to the respondents, three hundred and eighty-four (384) questionnaires were retrieved from the respondents representing 100%.

Data Screening

In the first step, data were prepared for analysis through screening by using various methods. Missing values were identified for each respondent by calculating frequencies and by creating missing values column; results showed that there were no significant missing values in the data, either system or user missing. Outliers were also detected by using boxplots through the interquartile range rule. There were no significant outliers in the data.

Assessment of Multivariate Tests

Normality

Before conducting the statistical analysis, the assumption of normality was tested. Normality refers to the shape of the data distribution for an individual metric variable and its correspondence to normal distribution (Hair et al., 2010). Kolmogorov-Smirnov and Shapiro-

Wilk tests were used to check whether the data has a normal distribution. Decision for normality assumption is made; if the p-value is greater than .05, then the data has a normal distribution. In this study, the p-value for normality test is less than .05. But the Q Q plots for normality showed that data is nearly distributed as data is closer to the diagonal line of plot.

Table IV
"Results for Normality Testing"

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Website Convenience	.234	383	.000	.849	383	.000
Website Speed	.194	383	.000	.852	383	.000
Website Design	.210	383	.000	.849	383	.000
Website Security	.195	383	.000	.865	383	.000
Consumer's Online Purchase Intention	.178	383	.000	.874	383	.000

A Lilliefors Significance Correction

Normality can be assessed to some extent by obtaining skewness and kurtosis value. For the data to be normally distributed skewness and kurtosis values should range from +1 to -1. Results showed that values of skewness and kurtosis fall in range. It can be concluded that the data is normally distributed.

Table V
"Skewness and Kurtosis for Normality Testing"

	N	Skewness		Kurtosis	
		Statistic	Std. Error	Statistic	Std. Error
Website Convenience	384	.481	.125	-.74	.249
Website Speed	384	.334	.125	-1.02	.249
Website Design	384	.317	.125	-1.05	.249
Website Security	384	.306	.125	-1.00	.249
Consumer's Online Purchase Intention	384	.307	.125	-1.11	.249

Multicollinearity

The assumption of multicollinearity is tested in order to run the multiple regression analysis. When independent variables exhibit high correlation in the regression equation, then multicollinearity occurs. This correlation between the independent variables should be low in order to fulfill the assumption. To examine this assumption, collinearity diagnostics were run using SPSS, which shows it in the form of tolerance value and Variance Inflation Factor (VIF). If the value of tolerance is less than .10 and the VIF value is greater than 10, it provides evidence for the presence of multicollinearity. For the multicollinearity assumption to be fulfilled, VIF value should lie between 1 and 10. In the present study, multiple regression analysis was conducted, and collinearity diagnostics showed the assumption of multicollinearity is not violated as indicated by values of tolerance and VIF. Analysis showed that the tolerance value for website speed, website design, and website security is .10, and VIF value is 9.37, which showed the assumption is fulfilled.

Reliability Analysis

Reliability is achieved when items in the measurement are able to measure the same underlying concept of the study in a consistent manner (Hinton et al., 2014; Sekaran, 2003). Reliability is measured via two major components: stability and consistency. Stability refers to the unchanging nature of the measurement in spite of having variability in the test circumstances; while internal consistency makes certain that the set of items is sticking together and measuring the same concept independently (Sekaran, 2003). The mostly adopted reliability measure is Cronbach's Alpha (Hinton et al., 2014). Cronbach's Alpha that is greater than 0.70 is considered acceptable, and a value of 0.9 or above is considered excellent (Hinton et al., 2014).

Table VI
"Reliability Analysis"

Variables	Cronbach's Alpha	Reliability Level
Website Convenience	.70	High Reliability
Website Speed	.70	
Website Design	.71	
Website Security	.71	
Consumer's Online Purchase Intention	.71	

As seen in *Table VI*, reliability of the website convenience, website speed, website design, website security, and consumer's online purchase intention are in the acceptable range; .70, .70, .71, .71, and .71 respectively. Reliability results are supported by Fraenkel and Wallen (1996), who stated that the reliability of items is acceptable if the alpha is within .70 and .99.

Descriptive Statistics

Descriptive statistics helps us describe a set of factors by transferring raw data into meaningful information (Sekaran, 2003). *Table VII* represents the mean and standard deviation of 35 items for 5 variables, 4 independent variables and 1 dependent variable. Variables are measured on 5- point Likert scale (1 = strongly disagree, 2 = disagree, 3 = uncertain, 4 = agree, and 5 = strongly agree). A mean score reading from 1 to 2 is considered low, 3 to 4 is considered moderate, and 4 to 5 is considered high 'agreement' to the variable item.

Table VII

“Mean and Standard Deviation of Variables”

Variable	No. of Item	Measurement Item	Mean	Standard Deviation
Website Convenience	7	WC1	2.02	1.37
		WC2	3.22	1.93
		WC3	2.54	1.72
		WC4	3.31	1.82
		WC5	2.43	1.78
		WC6	3.40	1.80
		WC7	2.61	1.72
Website Speed	7	WS1	2.61	1.85
		WS2	3.20	1.84
		WS3	2.57	1.80
		WS4	3.19	1.80
		WS5	2.68	1.81
		WS6	3.24	1.83
		WS7	2.70	1.80
Website Design	7	WD1	2.58	1.84
		WD2	3.14	1.83
		WD3	2.54	1.79
		WD4	3.15	1.83
		WD5	2.79	1.82
		WD6	3.08	1.82
		WD7	2.79	1.82
Website Security	7	WSe1	2.47	1.79
		WSe2	3.26	1.79
		WSe3	2.48	1.75
		WSe4	3.19	1.83
		WSe5	2.62	1.80
		WSe6	3.01	1.85
		WSe7	2.89	1.84
Consumer's Intentions	7	CI1	2.38	1.79
		CI2	3.23	1.82
		CI3	2.51	1.80
		CI4	3.22	1.81
		CI5	2.60	1.79
		CI6	3.05	1.86
		CI7	2.78	1.82

Respondent's Demographic Profile

The reliabilities of the research variables are calculated through Cronbach's alpha to check the internal consistency of items on a scale. Descriptive analysis and frequencies were calculated for respondents' demographic profiles.

Table VIII
 Demographic Respondents' Profile"

Characteristics	Frequency (f)	Percentage (%)
Gender		
Male	179	46.6
Female	205	53.4
Age		
< 25 years	22	5.7
26-30 years	46	12.0
31-35 years	134	34.9
35-40 years	169	44
< 40 years	13	3.4
Marital Status		
Single	123	32.0
Married	231	60.2
Divorced	27	7
Widowed	3	.8
Level of Education		
High School	3	.8
NCE/Diploma	2	.5
Undergraduate	44	11.5
Master's Degree	224	58
Doctorate (PhD)	111	29

Note: f=Frequency, %=percentage

Table VIII reports the frequency and percentages of characteristics. The sample comprised 53.4% females and 46.6% males. For the age groups, most of the respondents (44%) have an age range of 35 – 40 years, and fewer respondents (3.4%) have an age range of <40 years. The sample comprised more married respondents (60.2%) than any other category of marital status. The 58% of respondents have a Master's degree as their educational level.

Table IX
 "Psychometric Properties of Study Variables (N=384)"

Variables	M	SD	Range	Cronbach α
Website Convenience	23.04	7.58	7-35	.70
Website Speed	24.11	7.62	7-35	.70
Website Design	23.99	7.84	7-35	.71
Website Security	23.65	7.88	7-35	.71
Consumer's Online Purchase Intention	23.70	7.83	7-35	.71

Note. M=Mean; SD=Standard Deviation; α = Cronbach alpha

As seen in Table IX, psychometric properties of the website convenience, website speed, website design, and website security, and consumer's online purchase intention are in the acceptable range; .70, .70, .71, .71 and .71, respectively. The results were supported by Fraenkel and Wallen (1996), who stated that the reliability of items is acceptable if the alpha is within .70 and .99.

Correlation Analysis of Variables and Demographics

Pearson product-moment correlation was run to find the correlation among website convenience, website speed, website design, website security, and consumer's online purchase intention.

Table X

"Descriptive Statistics and Correlation of the Study Variables"

Variables	N	M	SD	1	2	3	4	5
1. Website Convenience	384	23.04	7.58	-				
2. Website Speed	384	24.11	7.62	.84**	-			
3. Website Design	384	23.99	7.84	.86**	.92**	-		
4. Website Security	384	23.65	7.88	.85**	.92**	.92**	-	
5. Consumer's Online Purchase Intention	384	23.70	7.83	.78**	.86**	.87**	.87**	-

Note. *. $p < .05$; **. $p < .01$; ***. $p < .001$, n=sample, M=Mean, SD=Standard Deviation

In *Table X*, this study reports the means, standard deviations, and correlations for the variables in the research model. Pearson product-moment correlation was computed to assess the correlation among website convenience, website speed, website design and website security, and consumer's online purchase intention.

Website convenience and website speed are significantly positively correlated ($r = .84$, $p < .01$), website convenience and website design are also significantly positively correlated ($r = .86$, $p < .01$). Similarly, website convenience has significant positive association with website security ($r = .85$, $p < .01$). As expected, the results indicate website convenience and consumer's online purchase intention are significantly positively correlated ($r = .87$, $p < .01$), which provides preliminary support for H1. That is, website convenience leads to more positive purchase intentions of consumers.

Website speed is significantly positively correlated with website design ($r = .92$, $p < .01$) and website security ($r = .92$, $p < .01$). Additionally, there was also a significant positive association between website speed and consumer's online purchase intention ($r = .86$, $p < .05$). This finding provides the support to H2. That is, website speed has an influence on the consumer's intention to make purchases online.

Website design and website security are significantly positively correlated ($r = .92$, $p < .01$). Website design is also significantly positively correlated with consumer's online purchase intention ($r = .87$, $p < .01$). The way a website is designed to influence the consumer's online purchase intentions. It provides preliminary support to H3. That is, website design has an influence on the consumer intention to purchase online.

Website security is also significantly positively associated with consumer's online purchase intentions ($r = .87$, $p < .05$), the security of the website leads to more positive online purchase intentions of consumers. It provides preliminary support to H4 that website security influence the consumer intention to make purchases online.

Overall, website convenience, website speed, website design, and website security are all positively associated with consumer's online purchase intentions.

Regression Analysis

Regression analysis was used to find the predictors of consumer's online purchase intention. *Table XI* shows regression analysis using enters method.

Table XI

"Multiple Linear Regression Analysis to Establish the Predictors of Consumer's Online Purchase Intentions"

Variables	B	SE	t	P	95%CI
Consumer Online Purchase Intention					
Website Convenience	.25	.07	.002	.000	[.19, .34]
Website Speed	.27	.07	3.80	.000	[.13, .42]
Website Design	.34	.07	4.91	.000	[.20, .48]
Website Security	.30	.07	4.29	.000	[.16, .43]

Note: * $p < .05$, ** $p < .01$, *** $p < .001$; B= Unstandardized Coefficient; SE= Standard Error, CI= Confidence Interval

Multiple linear regression analysis was run to find whether website convenience, website speed, website design, and website security predict consumer's online purchase intentions. Enter method was used to run the analysis. Results show that the overall model is significant at $F(4, 378) = 374.87$, $p < .001$. However, website convenience, speed and design significantly predict consumer's online purchase intentions. Likewise, website security also significantly predicts the consumer's online purchase intentions. Website design has the significantly highest beta coefficient value of 0.340, meaning that consumers will purchase from a website with a simple and clear design that is not complicated and easy to navigate. This result supports the idea that a website should have an easy, precise and non-complicated web design that makes it easier for customers to use. This finding is supported by Nguyen et al. (2019), who claimed that the ease of use of the website, the ability to navigate, and reliability are some of the critical reasons influencing consumers. Overall, the regression model is significant and explains 79% variance in the dependent variable (consumer's online purchase intention) due to independent variables (website convenience, website speed, website design, and website security). This variance is enough to conclude that website characteristics have significant influences on the online purchase intentions of consumers. All the hypotheses were approved, as shown by the statistical significance of all the results.

Table XII

“Summary of Hypothesis Results”

Hypothesized Relationship	Supported/ Not Supported	Findings
Website convenience has an influence on consumer’s intention to purchase online.	Supported	($r=0.875$); $p < 0.01$
Website speed has an influence on consumer’s intention to make purchases online.	Supported	($r=0.863$); $p < 0.05$
Website design has an influence on consumer’s intention to purchase online.	Supported	($r=0.871$); $p < 0.01$
Website security has an influence on consumer’s intention to purchase online.	Supported	($r=0.877$); $p < 0.05$

Discussion

The present study examined the influence of websites features (convenience, speed, design and security) on consumer’s online purchase intentions. Data was analyzed using several steps for hypothesis testing. Reliability analyses showed that all the variables have Cronbach alpha values greater than or equal to .70, which are in the acceptable range. Besides, the descriptive analysis indicated that the majority of the participants were female. Most participants were 35 – 40 years old, and they have a master’s level of education. The correlational analysis confirmed the influence of the website on consumer’s online purchase intentions. The regression analysis showed that website design, speed, and security are the significant predictors of consumer’s online purchase intentions except for website convenience.

The results of the current study confirmed the hypothesis showing that website convenience has positive influence on purchase intentions. Findings of this study are supported by a previous research conducted to examine the purchase intentions of online consumers which stated that online purchase intentions and customer satisfaction are influenced by the website quality (Hasanov & Khalid, 2015). Similarly, another study was conducted on the factors affecting the consumer’s online purchase intentions and found that there are six factors that positively impact the consumer’s online purchase intentions. From these six factors, website convenience is the most significant factor that positively influences the consumer’s online purchase intentions. So, this study supported the current findings; website convenience has positive influence on consumer’s online purchase intentions (Le-Hoang, 2020).

Moreover, findings of the study confirmed the hypothesis; website speed has a positive influence on consumer’s online purchase intentions. Website speed has a significant correlation with the purchase intentions. Nearly 70% of consumers say page speed influences their purchase intentions (Southern, 2019). Another research corroborates our findings that showed approximately 79% influence on consumer’s purchase intentions can be explained by only three elements, and among them, website performance is the most important driving factor to increase purchase intentions (Jiang et al., 2015). The optimal website performance and speed help consumers in decision-making, which ultimately plays a role in the success of business. Similarly, another study conducted by Dominici et al (2021) showed that buyers

have less time to tolerate the delays in the online platform due to their busy routines. This study emphasized the importance of website speed on consumer's intention to buy online. Furthermore, another study examined that load time is the service gap that influenced the user experience by ultimately deciding the online purchase intentions (Stringam & Gerdes, 2019).

The results of the study approved the hypothesis that website design also has a positive influence on consumer's online purchase intentions. A study by Pandey and Parmer (2019) emphasized the factors influencing consumer shopping behavior. The findings of the study are aligned with current study's results; website design was one of the factors influencing consumer's online purchase intentions. Ranganathan and Ganapathy (2002) empirically established that website design has a positive impact on online purchase intentions. Website design was operationally described as how the content was arranged on the website. Similarly, another research also supports the recent findings that website design has a positive influence on online shopping intentions, but this relationship is mediated by trust (Ganguly et al., 2010).

Furthermore, the findings of the study showed that website security positively influences consumer's online purchase intentions. The findings are aligned with a previous study which indicated that the website security and transparent payment system increase the trust of consumers in a seller. The good reputation of a selling website is also a crucial success facet in driving purchase intentions of online market consumers as they feel confident in making purchase decisions when they feel safe about their privacy and payment transactions. The website security and consumer's security concerns are directly correlated and influence the purchase intentions of consumers, as the website security also helps in avoiding financial losses of their customers by providing them protection against malware (Tran & Nguyen, 2022). These findings are also supported by another indigenous research study which revealed that a website usability, design, security measures, and information quality are positively relevant to the consumers' shopping intentions. The findings concluded that service providers need to pay more attention to environmental clues such as experience, website convenience, and privacy or security to enhance the attraction of online consumers (Sam & Tahir, 2009).

Conclusion

The findings of the current study showed that website features including website convenience, website speed, website security and website design has significant influence on online purchase intentions. In a nutshell, websites that are more convenient to use, have good web speed and user-friendly designs, and ensure security and safety of customer's information are more likely to enhance purchase intentions. The current study filled the gaps in previous literature. It provides a more comprehensive framework regarding growing online purchase intentions that are not addressed by previous studies conducted in Malaysia. It is the most significant contribution to the academic field. One of the significant contributions of this research is: it adds to the existing literature. It also adds some new findings since the influences of website design, website convenience, website speed, and website security on consumer's online purchase intentions were not studied in the previous literature in this context.

Limitations and Future Directions

In the study, some specific influential factors were used, such as website convenience, website speed, website design, and website security; however, the consumer's purchase intentions are influenced by many other factors. In the future, other driving factors should also be tested against the existing results. There are other factors such as website popularity, website compatibility with social media, and search engine optimization of the website that affect the online purchase intentions. The current study did not highlight any mediator variable that can influence purchase intentions. The relationship between website and purchase intentions could be affected by mediator variables like product type and customers' personal values like demographics and psychographics, which are not tested in this study. Aside from website features, consumer characteristics such as cultural and religious backgrounds can influence their online purchasing intentions. In the current study, only self-report measures have been used; however, future researches should use data from a wide range of informant resources.

References

- Barkatullah, A. H., & Djumadi. (2018). Does self-regulation provide legal protection and security to e-commerce consumers? *Electronic Commerce Research and Applications*, 30, 94–101. <https://doi.org/10.1016/j.elerap.2018.05.008>
- Billy, B., & Law, R. (2003). The impact of website quality on customer satisfaction and purchase intentions: Evidence from Chinese online visitors. *International Journal of Hospitality Management*, 27(3), 391–402. [doi:10.1016/j.ijhm.2007.10.008](https://doi.org/10.1016/j.ijhm.2007.10.008)
- Boudhayan, G., Milena, H., & Dianne, C. (2010). The effects of website design on purchase intention in online shopping: The mediating role of trust and the moderating role of culture. *International Journal of Electronic Business*, 8(4), 302–330. [doi:10.1504/IJEB.2010.035289](https://doi.org/10.1504/IJEB.2010.035289)
- Cho, H. Y., Lee, S. H., & Saini, R. (2022). What makes products look premium? The impact of product convenience on premiumness perception. *Psychology & Marketing*, 39(5), 875–891. <https://doi.org/10.1002/mar.21626>
- Dominici, A., Boncinelli, F., Gerini, F., & Marone, E. (2021). Determinants of online food purchasing: The impact of socio-demographic and situational factors. *Journal of Retailing and Consumer Services*, 60 (102473). <https://doi.org/10.1016/j.jretconser.2021.102473>
- Enduing the Pandemic: Surveys on the Impact of COVID-19 to the Livelihoods of Malaysian MSMEs & Workers. (2021). The Asian Foundation. <https://asiafoundation.org/wp-content/uploads/2021/03/Enduring-the-Pandemic-Surveys-on-the-Impact-of-Covid-19-to-the-Livelihoods-Of-Malaysian-MSMEs-Workers-.pdf>
- Fishbein, M. A., & Ajzen, I. (1975). *Belief, attitude, intention and behaviour: An introduction to theory and research*. Addison-Wesley.
- Hasanov, J., & Khalid, H. (2015). The impact of website quality on online purchase intention of organic food in Malaysia: A WebQual model approach. *Procedia Computer Science*, 72, 382–389. <https://doi.org/10.1016/j.procs.2015.12.153>
- Heijden, H., Verhagen, T., & Creemers, M. (2003). Understanding online purchase intentions: Contributions from technology and trust perspectives. *European Journal of Information System*, 12, 41–48. <https://doi.org/10.1057/palgrave.ejis.3000445>
- Kilicalp, M., & Ozdogan, O. N. (2019). Investigating of consumers' behaviors using online food delivery services in packed food orders by extended technology acceptance

- model. *International Journal of Contemporary Tourism Research*, 3(2), 148–163. <https://doi.org/10.30625/ijctr.618952>
- Kumar, R., Sachan, A., & Dutta, T. (2020). Examining the impact of e-retailing convenience dimensions on behavioral intention: The mediating role of satisfaction. *Journal of Internet Commerce*, 19(4), 466–494. <https://doi.org/10.1080/15332861.2020.1788367>
- Lee, G. & Lin, H. (2004). Customer perceptions of e-service quality in online shopping. *Int. J. Retail Distrib. Manag*, 33(2), 161–167. DOI 10.1108/09590550510581485
- Le-Hoang, P. V. (2020). Factors affecting online purchase intention: The case of e-commerce on Lazada. *Independent Journal of Management & Production*, 11(3), 1018. <https://doi.org/10.14807/ijmp.v11i3.1088>
- Mofokeng, T. E. (2021). The impact of online shopping attributes on customer satisfaction and loyalty: Moderating effects of e-commerce experience. *Cogent Business & Management*, 8(1). <https://doi.org/10.1080/23311975.2021.1968206>
- Nguyen, T. T., Nguyen, N., Nguyen, T. B., Phan, T. T., Bui, L. P., & Moon, H. C. (2019). Investigating consumer attitude and intention towards online food purchasing in an emerging economy: An extended TAM approach. *Foods*, 8(11), 576. <https://doi.org/10.3390/foods8110576>
- Pandey, A., & Parmar, J. (2019). Factors affecting consumers' online shopping buying behavior. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3308689>
- Paul, J., & Rana, J. (2012). Consumer behavior and purchase intention for organic food. *Journal of Consumer Marketing*, 29(6), 412–422. <https://doi.org/10.1108/07363761211259223>
- Paulo, R., Tiago, O., & Almira, F. (2019). The impact of e-service quality and customer satisfaction on customer behavior in online shopping. *Science Direct*, 5(10). <https://doi.org/10.1016/j.heliyon.2019.e02690>
- Pee, L., & Jiang, J. (2018). Signaling effect of website usability on repurchase intention. *International Journal of Information Management*, 39, 228–241. doi:10.1016/j.ijinfomgt.2017.12.010
- Saad, A. T. (2020). Factors affecting online food delivery service in Bangladesh: An empirical study. *British Food Journal*, 123(2), 535–550. <https://doi.org/10.1108/bfj-05-2020-0449>
- Salisbury, D., Pearson, A., & Miller, D. (2001). Perceived security and World Wide Web purchase intention. *Industrial Management & Data Systems*, 101(4), 165. doi:10.1108/02635570110390071
- Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill-building approach* (7th ed.). John Wiley & Sons.
- Southern, M. (2019). Nearly 70% consumers say page speed impacts their purchasing decisions. *Search Engine Journal*. <https://www.searchenginejournal.com/nearly-70-of-consumers-say-page-speed-impacts-their-purchasing-decisions/290235/#close>
- Southern, M. G. (2019). Impact of page speed on Purchasing decision. *Search Engine Journal (SEJ)*. <https://www.searchenginejournal.com/nearly-70-of-consumers-say-page-speed-impacts-their-purchasing-decisions/290235/#close>
- Statista. (2022). Statista.: www.statista.com
- Stringam, B., & Gerdes, J. (2019). First impressions in a mobile world: How hotel sites compare with OTAs, aggregators and peer to peer accommodations on website performance. *Journal of Service Science and Management*, 12(04), 475–494. <https://doi.org/10.4236/jssm.2019.124033>

- Tandon, U., Kiran, R., & Sah, A. N. (2016). Customer satisfaction using website functionality, perceived usability and perceived usefulness towards online shopping in India. *Information Development*, 32(5), 1657–1673. <https://doi.org/10.1177/0266666915621106>
- Tran, V. D., & Nguyen, T. D. (2022). The impact of security, individuality, reputation, and consumer attitudes on purchase intention of online shopping: The evidence in Vietnam. *Cogent Psychology*, 9(1). <https://doi.org/10.1080/23311908.2022.2035530>
- Wei, Y., Wang, C., Zhu, S., Xue, H., & Chen, F. (2018). Online purchase intention of fruits: Antecedents in an integrated model based on technology acceptance model and perceived risk theory. *Frontiers in Psychology*, 9. <https://doi.org/10.3389/fpsyg.2018.01521>
- Wong, C. (2014). *E-Commerce infographic: Understanding online shoppers in Malaysia*. [Online]. Ecinsider. <https://www.ecinsider.my/2014/01/ecommerce-infographic-malaysia-understanding-online-shoppers.html>