The Mediating Role of Customer Trust in Affecting the Relationship between Online Shopping Factors and Customer Purchase Decision

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Abstract

Buying online is a trend especially for young customers aged less than 30 years old. A lot of studies have been conducted to investigate this phenomenon but hitherto no cohesive model has been established. Therefore, the present study is meant to investigate online shopping factors that contribute to customers' purchase decision. Five factors were identified to have potential influence on online purchase decision and one factor is expected to be a mediator to affect the relationship. From 384 data collected from online customers who visited popular online shopping sites, it was found that all five factors (perceived convenience, perceived risk, perceived competence, perceived benevolence, and perceived integrity) lead to trust and at the same time trust acts as a quasi mediator to affect the relationship between these factors and online purchase decision. The findings provide the actively sought after evidence to support the claims on the role of these factors in affecting online purchase decision. Online businesses should incorporate the findings in order to facilitate customers' decision making process while visiting their websites. The websites must contain or portray all the elements as found in this study.

Keywords: Perceived convenience; Perceived risk; Perceived competence; Perceived benevolence; Perceived integrity; Online decision making; Trust.

Introduction

Online purchase has been a new normal nowadays as more and more people have opted to online purchasing methods due to various reasons. One of them is the fast spread of COVID19 pandemic that risks people who do not restrict contacts and movement. The best option is to purchase the required products via online platforms. Other reasons include lack of time to visit the physical shopping premises, sometimes it is more costly to do conventional shopping activities, and it is difficult to compare the products when engaged in conventional shopping. These are a few reasons that make online shopping a popular choice among consumers.

According to a survey conducted by Adobe in 2015, Malaysia was having a consistent and steady growth in digital ads spending, with the segment showing a 20% growth as compared to previous years. Malaysian consumers liked to shop online more than the actual store. In addition, Malaysia had a strong online penetration rate (66%) with around 20 million users. The amount of internet users increases each year and Malaysia is one of the countries which are top in using the internet in their daily life. Although there is a great opportunity to promote online businesses, Malaysian consumers are less ready to engage in online transactions.

Despite the growing population of online shoppers, 58% of Internet users describe online shopping as frustrating, confusing, and an overwhelming activity (Horrigan, 2008). Khoo (2014) mentioned that online security will affect the customer purchase decision, which in the survey highlighted that 58% of respondents were concerned about their financial information being stolen by cyber criminals, whilst 23% said they preferred not to share their credit card details with websites that they had not visited previously and other issues that were a big concern to consumers such as not receiving what they have ordered (9%) and getting damaged goods (6%).

There is an evident shift of customers from traditional shopping to online shopping (Ariff, Sylvester, Zakuan, Ismail, & Ali, 2014). This shows that the trend of the customers nowadays is more towards e-commerce. But, the online retailers are still unable to attract customers due to three most common problems that customers are afraid of, which are late delivery (19%), faulty or damaged products (13%) and goods do not arrive at all (12%). One in 10 (11%) customers complained that they had their delivery left outside their home without permission and 4% said they were charged an additional or unexpected fee.

In e-commerce, trust plays an essential role in affecting consumers' online purchasing decision (Bharadwaj, Sawy, Pavlou, & Venkatraman, 2013). Statistics show that 30% of Malaysians did not use the online shopping because of they did not trust online transactions. They were worried that their data will be stolen or duplicated by others. Despite the potential growth of online shopping due to its advantages, Malaysian consumers still need further education on online shopping. In order to investigate the role of various factors in influencing customer online shopping decision, trust is included as the mediating variable in this study.

Literature Review

This part is meant to discuss the relationship between variables involved in the study. It starts with the discussion on the dependent variable, followed by the discussion on the influence of the independent variables, and ends with the discussion on the mediating role of trust on the main relationship between factors od online shopping and customer purchase decision.

Customer Purchase Decision

Online purchase is a process that involves an exchange of time, effort and money through the online medium (Wu, 2013). Buying intention will emerge after customers gained experience, feelings and met external conditions to gather information, assess choices, and make purchase decision (Schiffman & Kanuk, 2000). There are various factors that might affect customer online purchase decisions. The present study will adopt the model proposed by Che, Cheung and Thadani (2017) and Chang, Cheung and Lai (2005) in identifying the potential factors that might affect customer online purchase decisions. The factors are perceived benevolence, perceived integrity, perceived competence/ ability, perceived risk, and perceived convenience. Customer trust is included as the moderating variable to further clarify the relationship between the independent variables and the dependent variable.

Perceived Benevolence

Perceived benevolence is an evaluation of a trustee's eagerness to act to the greatest advantage of the trustor, isolated from the motive process for personal gain. It is a judgment of a trustee's empathy or concern for the trustor's welfare. The concept of perceived benevolence relates to the recognition that the trustee is accomplishing something useful for the trustors (Mayer, Davis, & Schoorman, 1995).

Benevolence is a process that is triggered by affective appraisal, based on commonality and on the perception of the others' attention to our needs (Calefato, Lanubile, & Novielli, 2015). Others stated that perceived benevolence captures the perception that the trustee is acting to concerns about the needs and wants of the trustor, in the aspects of emotional attachment and positive attitude (Shazi, Gillespie & Steen, 2015). In other words, benevolence have the positive relationship between the customer purchase decision and customer trust as they play a significant role towards the customer.

Perceived Integrity

The concept of perceived integrity indicates the trustors' view of the truth of the trustee (Mayer, et al., 1995). Perceived integrity is the perception on the trusted party, for instance the seller, will be honest and will meet satisfactory arrangement of standards (Abdul Rahman, & Hailes, 2000). Other than that, perceived integrity refers to the impression of the customer on the trustworthiness of the sellers (and intermediary), and the certainty of a customer that the conduct

of a merchant is consistent with his own words and the agreed rules (Castelfranchi, & Tan, 2001).

Integrity is the perception that the other party will follow the principles and values that customers find acceptable, such as delivering the products as promised (Shazi, et al., 2015). It can be said that perceived integrity is the perception of customers which indicates the level of dishonesty and inconsistency of information on their website (Hajli, Lin, Featherman, & Wang, 2014). Low level of integrity reflects the unethical behavior of the trustee towards the trustor which will result in the loss of customers from purchasing online (Gong, Xie, Peng & Guan, 2015). Lindenmeier, Schleer and Pricl (2012) stated that having low integrity towards customers can trigger customers' boycotting behavior in online sites.

Perceived Competence/Ability

The concept of perceived competence is linked to the ability of the trustee (Mayer, et al., 1995). In addition, ability comprises the skills and competencies that enable a party to have influence within some specific domains. Competence is linked to the organization's ability to deliver on its promises (Kharouf, Lund & Sekhon, 2014). Perceived competence of a company helps re-establish trust from their customers after negative publicity. Perceived competence will help diminish the level of perceived risk, as customers become more assured that the retailer can perform consistently as promised (Kharouf, et al., 2014). Consistency helps strengthen the promise and certainty of the trustee's future performance and helps build trustworthiness (Kharouf, et al., 2014).

Ability is the competence of the trustee to complete a job, meet a duty, and provide the response to a request from a trustor. It relates to the trustee's qualified skills, information and competency. It may be assessed by the trustor through the evaluation of available information (e.g., the description of the business provided on a company (Calefato, et al., 2015). In other words, evaluating the trustee's ability to perform a task means that the trustor is purely rational, although emotions influence this process (Calefato, et al., 2015). Ability should also be highlighted on the websites since people consider this variable to support their decision (Gupta & Khincha, 2015).

Freathy and Calderwood (2013) highlighted that customers choose their specific retailers based on their ability and competence to provide the complete information regarding the products or services. Consumers buying products online have to rely on the information provided on the website since customers do not have the chance to try out the product. So the trustor will only make a decision based on competency or ability to provide good information on their websites (De Langhe, Fernbach, & Lichtenstein, 2016).

Perceived Risk

The perceived risk concept was introduced by Bauer (1960). He defined it as amount of risk that

is perceived by a consumer in selecting or making decision in a purchasing process. It is based on the purchase consequences that will highlight the notions of loss and uncertainty. Other researchers define perceived risk as the potential loss perceived by a customer in considering online shopping compared to purchasing offline (Yang, 2012).

Consumers' perceived risk is linked with online shopping as it received only limited attention despite their implications on e-commerce (Amaro & Duarte, 2015). Moreover, perceived risk reflects that consumer's choice of an online trader depends indirectly on the amount of risk perceived by a consumer, and directly on the level of trust expected of an online merchant, with regards to a given online purchase. That is, perceived risk can be an important predictor of one's decision to trust another (Hong & Cha, 2013). In sum, consumers are willing to purchase when uncertainty is reduced and trust is established through full assessment of the information that online shopping websites provide (Hajli et al., 2014).

People usually want to reduce the amount of uncertainty (Hajli, 2015). Customers are likely to purchase a product online based on the four key factors which are the website quality, commitment factor, customer service and security of online shopping. Gupta and Khincha (2015) mentioned that perceived risk is the antecedent of attitude towards online purchasing. Studies found that trust is very often associated with consumers' perceived risk such as uncertainty and lack of security associated with financial transaction and personal information (Jawa & Chaichi, 2015). They added more on the perceived risk as the trust factor lies on the medium (i.e. online store size and reputation) and not on the brand that a consumer intends to purchase. This will highly impact the customer's purchase decision in online shopping.

More Internet users prefer online payment while they do online shopping, thus the security of online payment certainly will become a significant factor to influence Internet shopping (Mittal, 2013). Perceived risk is regarded as an obstacle to successful transactions due to the fact that customers intentionally and unintentionally perceive risk when judging products and services online (Meng-Hsiang, Li-Wen, & Cheng-Se, 2014). Several authors have observed that the perceived risk in e-commerce has a negative effect on shopping behavior on the Internet, attitude toward usage behavior and intention to adopt e-commerce (Zhang, Tan, Xu & Tan, 2012).

Perceived Convenience

Perceived convenience refers to the degree to which a person believes that using a certain system would be free of struggle (Davis, Bagozzi & Warshaw, 1992). In online activity-based context, convenience refers to the ease of browsing or searching for product information (Sultan & Nassir Uddin, 2011) and making payment. Convenience factor appears to be a primary element in e-commerce (Sreeram, Kesharwani & Desai, 2017).

Mital (2013) stated that most researchers have agreed that Internet brings convenience to users however, they argue about the convenience attributes and antecedents. Nevertheless,

majority of researchers have agreed upon three attributes of convenience in Internet shopping context which are search time saving, less physical effort, and the ability of shopping at anytime and anywhere (Jawa & Chaichi, 2015). Katawetawaraks and Wang (2011) also found that stress associated with queuing and waiting in long lines at traditional stores as well as previous negative face-to-face interaction with a salesperson motivate consumers and increase their willingness to shop via Internet.

Furthermore, studies found that 58 per cent of respondents prefer to buy online due to the 24-hours operation availability. Sheng and Joqinapelly (2012) found that convenience impacts positively on consumers' trust. Yulihasri, Islam and Daud (2011) identified that ease of use, compatibility, privacy, security, normative beliefs, self-efficacy, and attitude influence the customer's buying intention on shopping online. Additionally, Internet offers some good ways to save money and time. For example, shoppers do not need go out to the physical store and thus there is no transportation cost. Compared with traditional shopping, there is no waiting in line for shoppers on the Internet, and some shoppers reported that they feel pressure from the sales people sometimes, but Internet offers them more enjoyable experience while shopping online (Mittal, 2013).

Customer Trust

Trust is defined by Mayer, et al. (1995) as "the willingness of a party to be helpless against the activities of another gathering in view of the desire that the other will play out a specific activity imperative to the trustor, independent of the capacity to screen or control the other party". Trust is the perception that a particular vendor can be reliable (Kim, Yu & Gupta, 2012).

Trust is an important element in marketing relationship concept, which reflects the willingness of one party to engage in the risk and have to develop good feeling on the other party that they will act and reliably fulfill its future obligation (Scheer & Stern, 1992). According to the Liao, Liu and Chen (2011), trust can be implied as the website being secure and providing reliable environment to the customer so they can easily access the service information without a risk. On the other hand, vendors who are considered as insecure tend to lose their customers dramatically (Zhu, Chih, O'Neal, & Chen, 2011). Past studies indicate that trust in the e-service provider is important to determine whether or not the customer is willing to accept the service offered in the vendor's website (Mou & Cohen, 2013).

In fact, the key issue in e-commerce is likely the salesperson's behavior rather than the brand or image of the organization (Calefato, et al., 2015). According to Hung, Dennis and Robert (2004), trust may reflect the belief of the trustee to act according to customers' expectation which is the propensity of the trustor to take the risk of trusting the trustee (Calefato, et al., 2015). In fact, Liu and Hung (2010) have demonstrated that by enhancing the perception of integrity and benevolence, companies can improve customers' trust towards their online stores.

Existing research has focused predominantly on building trust rather than on developing a

trustworthy image of the website. For example, Schiffman, et al. (2010) proposed that organizations should make the improvement regarding communication and values, to avoid uncertainty or bad word-of-mouth. This has been supported by Tam, Loureiro, and Oliveira (2019) that one of the key drivers for the success of e-commerce is trust. Therefore, it is critical for online retailers to build customer trust since people tend to make a decision to purchase based on their level of trust in the product, salesperson or the company (Islam, Arif & Uddin, 2016).

In the e-commerce field, several prior studies have confirmed the positive link between trust and the intentions to purchase online (Kim, et al., 2012). Freathy and Calderwood (2013) highlight the role of trust in the process of choosing a specific online retailer. Kim, et al. (2012) argue that, if a particular vendor is perceived to be trustworthy, this directly reduces the risk associated with online shopping. Customers do not like to interact with or purchase products or services from websites if they perceive that their action is risky. Because of the lack of physical presence and the newness of this mode of shopping, most consumers do not know which online websites are trustworthy. In line with the potential threats consumers perceive when shopping online, Kim and Park (2013) proposed that virtual store owners should build up their trustworthiness in three key areas: perceived benevolence, perceived integrity, and perceived competence.

Moreover, the roles of trust in the customer purchase decision shows positive relationship as it tends to induce their thinking about the product and service that the seller provides. There are several research studies that show the relevant model of trustworthiness in online shopping context, whereby the main model contains perceived benevolence, perceived integrity, perceived competence, perceived risk and perceived convenience. Pertinent references where, applicable, should be provided. Methods that have been well described in previous publications may be referenced rather than described. But anything that is different from previously published methods should be explicitly stated. The author should ask himself/herself this question: Could someone else follow my instruction in this section and perform the same experiment with the same results? One of the most difficult things in writing a Materials and Methods section is deciding how much detail to give the reader. Too much detail can make this section excessively long. The Materials and Methods section of the paper should be very detailed, but concise.

Methodology

This research was conducted using correlational research design where survey questionnaire was used to capture the required data pertaining to the influence of certain factors in online purchase decision. A total of 384 responses from customers who have experienced online purchasing (purposive sampling) from the 10 most popular e-commerce websites in Malaysia that comprise Lazada Malaysia, 11street Malaysia, Lelong.my, Zalora Malaysia, eBay- Malaysia, Qoo10 Malaysia, Hermo, MySale Malaysia, Gemfive, and Fave. Data were collected using online

survey and those who answered the questionnaire are considered as having high interest in providing truthful information.

The questionnaire items were developed using the established questionnaire items from previous researchers. Customer online purchase decision was measured using the items developed by Flavián and Guinalíu (2006) and the questionnaire items for the three independent variables (perceived benevolence, perceived integrity, perceived competence/ ability) were adopted from Che, Cheung, and Thadani (2017). Perceived risk and perceived convenience were measured using items adopted from Pires, Stanton, and Eckford (2004) and Childers, Carr, Peck and Carson (2002). Consumer trust was measured using five items developed by Che, et al. (2017). The questionnaire was tested for content validity (using the expert opinion) and reliability (using the pilot test) and it was valid and reliable to to be used in the actual study.

Results

This part will discuss on the data analysis and findings of the study. Justifications for the findings are provided to provide further clarification.

Descriptive Statistics

As shown in Table 1, out of 384 respondents who participated in the study, 162 or 42.2% are male while the rest of the respondents are female (222 or 57.8%). Most of the respondents participated were between 18 and 27 years old (264 or 68.8%). It was followed by those aged between 28 and 37 years old (50 or 13%). 35 respondents or 9% aged between 38 and 47 years old and aged 48 years old and above. Majority of respondents were students (192 or 50%), followed by those who were self-employed (31 or 32%). Unemployed were the next largest group of participants who were represented by 31 individuals or 7.8% of the respondents. Malays are the largest group of the respondents represented by 262 individuals or 63% of the respondents, followed by Chinese and Indians (82 or 21.4% and 40 or 10.4%, respectively).

Regarding the online shopping experience, 242 respondents (63%) had less than one year experience, while 55 respondents (14.3%) had between 1 and 2 and between 2 and 3 years of experience using online transactions. Only 32 respondents or 8.3% had more than three years of experience. Pertaining to frequency of buying online, 145 respondents (37.8%) bought items online once in a month, while 95 respondents (24.7%) bought products online twice to thrice a month. 23.2% of respondents or 89 individuals bought items online once or twice a month. And 32 respondents or 8% bought products online more than four times in a month.

Table 1. Respondents' Demographic Profile

Variables	Descriptive	Frequency	Percentage
Gender	Male	162	42.2
	Female	222	57.8
Age	18 – 27 years	264	68.8
	28 – 37 years	50	13.0
	38 – 47 years	35	9.1
	48 & above	35	9.1
Occupation	Student or/and Not working	192	50.0
	Full-time working employee	123	32.0
	Self-employed	31	8.1
	Retired	8	2.1
	Unemployed	30	7.8
Race	Malay	262	68.2
	Chinese	82	21.4
	Indian	40	10.4
Experience	Less than 1 year	242	63.0
	1-2 years	55	14.3
	2-3 years	55	14.3
	More than 3 years	32	8.3
Frequency of Buying Online (Month)	0-1	145	37.8
	1-2	89	23.2
	2-3	95	24.7
	3-4	23	6.0
	>4	32	8.3

A principle component factor analysis with varimax rotation was performed to examine the dimensionality of the items measuring customer online purchase decision. Three items were used to measure the construct and the result of factor analysis indicates the suitability of the items to measure the intended variable. As presented in Table 2, the result produces the KMO value of .770, which indicates that the correlation matrix is sufficient to proceed with the analysis. The three items explain 89.8% of the variance in the model that is higher than the threshold value of 60%. The factor loadings for the three items are all higher than .5, indicating high validity of the items. The finding provides support for the construct dimensionality as conceptualized by Flavián and Guinalíu (2006).

Table 2. Result of Factor Analysis for the Dependent Variable

	Component	
	1	
CD1: I plan to continue using this website to purchase products.	.954	
CD3: It is likely that I will continue purchasing products from this website in the future.	.946	
CD2: I consider this website to be my first choice for transactions in the future.	.943	
% variance explained	89.809	
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.770
Bartlett's Test of Sphericity	Approx. Chi-Square	1058.484
	df	3
	Sig.	.000
MSA	.743-.794	

Table 3. Result of Factor Analysis for Customer Trust (A Mediating Variable)

	Component	
	1	
CT5: I trust information on online shopping website to be true.	.862	
CT1: I trust that online vendors keep customers' best interests in mind.	.807	
CT4: I believe that the online stores I visit keep its promises and commitments.	.761	
CT3: I think that online vendors will not do anything to take advantage of their customers.	.746	
CT2: Online shopping is trustworthy.	.659	
% variance explained	59.272	
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.713
Bartlett's Test of Sphericity	Approx. Chi-Square	798.295
	df	10
	Sig.	.000
MSA	.650-893	

A principle component factor analysis with varimax rotation was also performed to examine the dimensionality of the items measuring a mediator, which is customer trust. Five items were used to measure the construct and the outcome of factor analysis indicates the suitability of the items to measure the intended variable. As shown in Table 3, the KMO value of .713 indicates that the correlation matrix is adequate to proceed with the analysis. The five items explain 59.3% of the variance in the model that is very close to the threshold value of 60%. The factor loadings for the five items range from .659 to .862, indicating high validity of the items measuring customer trust. The result of factor analysis validate the dimensionality of the construct as originally conceptualized by Che, et al. (2017).

As shown in Table 4, a principle component factor analysis with varimax rotation was also performed to examine the dimensionality of the items measuring the independent variables. A total of 16 items were used to measure five independent variables. Four items were used to measure perceived convenience, four items were adopted to assess perceived risks, three items were used to gauge perceived risk, three items were utilized to assess perceived benevolence, and three items were adopted to measure perceived integrity. However, one item was deleted due to high cross loadings (perceived integrity). The remaining items explain 79.4% of the variance in the model, which is higher than the suggested value of 60%. The KMO value of .708 indicates the adequacy of correlation matrix to proceed with the analysis.

The first component contains four items measuring perceived convenience. The factor loadings are in the range of .5 and .881. The second component also contains four items measuring perceived risk with loadings ranging from .676 to .819. The third component shows the convergent of three items measuring perceived competence/ability. The factor loadings are in the range of .789 and .845. The fourth component reflects the convergent validity of the two items to measure perceived benevolence. The factors loadings are .707 and .769. The last

component reflects items used to measure perceived integrity. One item was removed and the remaining two items were adequate to measure the variable with loadings of .780 and .853.

The results of factor analysis indicate the validity of the items used to measure the intended variables in this study. Although the model of online shopping factors used in this study is a combination of two previous models with items adapted from different authors (Che, et al., 2017; Pires, et al., 2004; Childers, et al., 2002), the result of factor analysis supports the uni-dimensionality of the model. The model can be regarded as the extended model of online shopping.

Table 4. Result of Factor Analysis for the Independent Variables

	Component				
	1	2	3	4	5
CO3: I can use this website to shop anywhere.	.881				
CO4: This website would allow me to shop whenever I choose.	.880				
CO2: Using this website would be a convenient way to shop.	.781				
CO1: Shopping on this website would allow me to save time.	.500				
PR3: It is likely that shopping on this website will cause me to suffer a financial loss due to the hidden costs, maintenance costs or lack of warranty in case of faults.		.819			
PR2: It is likely that shopping on this website will cause me to lose control over the privacy of my personal and payment information.		.816			
PR4: It is likely that the online seller may fail to deliver the product or make a late delivery.		.789			
PR1: It is likely that the product I purchased on the website failed to meet the performance requirements originally intended by the purchase.		.676			
PC3: Online vendors have adequate knowledge to manage their business on the e-commerce.			.845		
PC2: Online vendors have sufficient expertise and resources to do business on the Internet.			.842		
PC1: Online vendors have the ability to handle sales transactions on the website.			.789		
PB2: If I required help, online vendor would do its best to help me.				.769	
PB1: I believe that online vendor would act in my best interest.				.707	
PI3: Online vendors act sincerely in dealing with customers.					.853
PI1: Online vendors will not charge any additional fees to shoppers for online shopping.					.780
% Variance explained (79.426%)	19.135	17.985	17.647	13.925	10.733
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.					.708
Bartlett's Test of Sphericity	Approx. Chi-Square				4048.295
	df				105
	Sig.				.000
MSA	.487-.852				

Table 5. Result of Correlation Analysis and Reliability Analysis

No	Variables	Mean	SD	1	2	3	4	5	6	7
1	Perceived Convenience	4.30	.72	(.854)						
2	Perceived Risk	3.71	.66	.290**	(.798)					
3	Perceived Competence	3.88	.65	.497**	.272**	(.878)				
4	Perceived Benevolence	3.68	.72	.596**	.198**	.566**	(.766)			
5	Perceived Integrity	3.25	.84	.245**	-.101*	.208**	.190**	(.574)		
6	Customer Trust	3.48	.70	.696**	.057	.436**	.780**	.425**	(.825)	
7	Customer Purchase Decision	4.02	.87	.510**	.208**	.465**	.678**	.460**	.678**	(.942)

Notes: **. Correlation is significant at the 0.01 level (1-tailed). *. Correlation is significant at the 0.05 level (1-tailed). N= 384. Cronbach's alphas are along the diagonal in the parentheses.

The correlation analysis was performed to examine the interrelationship between the variables involved in the study. As presented in Table 5, the independent variables are significantly correlated with each other, indicating a convergent validity. The lowest correlation is between perceived risk and perceived integrity, which also indicates negative relationship ($r=-.101$; $p<.05$). The highest correlation is between perceived convenience and perceived benevolence ($r=.596$; $p<.01$). These significant correlations indicate convergent validity of the independent variables.

Examining the correlation between the independent variables and customer trust, the lowest correlation is between perceived risk customer trust and the correlation is not significant ($r=.057$; $p>.05$). Other independent variables are significant correlated with customer trust with the highest value marked by perceived benevolence ($r=.780$; $p<.01$). These results indicate a potential mediating role of customer trust on the relationship between online shopping factors and customer purchase decision. The finding is consistent with the assertion made by previous authors (Islam, et al., 2016; Tam et al., 2019).

The results of correlation analysis also show the potential influence of online shopping factors and customer purchase decision. All independent variables are significantly correlated with the dependent variable with the lowest correlation shown by perceived risk ($r=208$; $p<.01$) and the highest correlation shown by perceived benevolence ($r=.678$; $p<.01$). The results denote the potential influence of these factors on customer purchase decision and these results will be confirmed using the multiple regression analysis.

As shown in the parentheses along the diagonal, the items used to measure the respective variables are reliable with the Cronbach's alpha values ranging from 0.574 (perceived integrity) to 0.942 (customer purchase decision).

Table 6. Result of Regression Analysis with Customer Online Purchase Decision as the Dependent Variable

Variables	Standardized Beta Coefficient
Perceived Convenience	.055
Perceived Risk	.112**
Perceived Competence	.029
Perceived Benevolence	.541**
Perceived Integrity	.350**
R	.770
R^2	.592
Adjusted R^2	.587
F value	109.842
Sig F value	.000
Durbin Watson	1.722

The first multiple regression analysis was performed to examine the influence of online shopping factors and customer purchase decision. As shown in Table 6, the result of the analysis shows the R value of .770, indicating a positive relationship between the two types of variables. The R2 value of .592 indicates that 59.2% of the variance in the dependent variable is explained by the five independent variables. The regression model is significant with F value of 109.842. The Durbin Watson value of 1.722 indicates the acceptable level of auto correlation in the regression model.

Out of five independent variables, three independent variables are the significant predictors of customer purchase decision. Perceived risk (β=.112; p<.01), perceived benevolence (β=.541; p<.01) and perceived integrity (β=.350; p<.01) are proven to significantly influence customer purchase decision in the online shopping context. The findings are consistent with those found by previous authors (Jawa & Chaichi, 2015; Meng-Hsiang, et al., 2014; Shazi, et al., 2015). These three factors are considered the most important factors that customers will consider when they want to purchase online.

The other two independent variables; perceived convenience (β=.055; p>.05) and perceived competence (β=.029; p>.05) are found not significant to influence customer purchase decision. These two factors can be regarded as less critical for customers to make purchase decisions. Using e-commerce to purchase is always more convenient as compared to conventional shopping approach. Besides, vendor competence is difficult to be proven other than using customer reviews and testimonials.

Table 7. Result of Regression Analysis with Trust as the Dependent Variable

Variables	Standardized Beta Coefficient
Perceived Convenience	.368**
Perceived Risk	-.117**
Perceived Competence	-.100**
Perceived Benevolence	.598**
Perceived Integrity	.230**
R	.877
R^2	.770
Adjusted R^2	.767
F value	252.928
Sig F value	.000
Durbin Watson	1.567

The second multiple regression analysis was performed to examine the influence of online shopping factors and a mediator that is customer trust. As presented in Table 7, the result of the analysis presents the R value of .877, indicating a positive relationship between the two groups of variables. The R2 value of .770 indicates that 77% of the variance in the dependent variable (customer trust) is explained by the five independent variables. The regression model is significant with F value of 252.928. The Durbin Watson value of 1.567 indicates the acceptable level of auto correlation in the regression model.

All five independent variables are significant to influence customer trust. Perceived convenience (β=.368; p<.01), perceived benevolence (β=.598; p<.01), and perceived integrity (β=.230; p<.01) are found to significantly and positively influence customer trust. Whereas, perceived risk (β=-.117; p<.01) and perceived competence (β=-.100; p<.01) are found to significantly but negatively influence customer trust. When customers perceived that it is risky to do online shopping, they will most probably not trust the online vendor. Similarly, when customers perceived that the online vendor is competent, their trust level will be low most probably because of high levels of suspicion they have on all claims put forth by the vendor on the website.

Table 8 shows the results of a hierarchical regression analysis that was performed to test the mediating effect of customer trust. It was tested by entering the independent variables in the first step and the mediating variable in the second step of the regression model. The result of the multiple regression analysis shows a slight increment in the percentage of variance explained in the model (1.1%) and the regression model is significant with the F value of 95.503. The Durbin Watson value of 1.835 indicates the acceptable level of auto correlation in the regression model.

Table 8. Result of Regression Analysis with Trust as a Mediator and Customer Online Purchase Decision as the Dependent Variable

	Standardized Beta Coefficients		
Variables	Without Mediator	With Mediator	Remarks
Perceived Convenience	.055	-.025	Trust acts as quasi mediator
Perceived Risk	.112**	.138**	Trust acts as quasi mediator
Perceived Competence	.029	.050	Trust acts as quasi mediator
Perceived Benevolence	.541**	.411**	Trust acts as quasi mediator
Perceived Integrity	.350**	.300**	Trust acts as quasi mediator
Customer Trust		.217**	Trust is sig.
R	.770	.777	
R^2	.592	.603	
Adjusted R^2	.587	.597	
F value	109.842	95.503	
Sig F value	.000	.000	
Durbin Watson		1.835	

The role of mediating variable is determined by comparing the beta coefficients of each independent variable in the first model (without a mediator) with those in the second model (with a mediator). A complete mediation effect is assumed when there is a significant reduction of the beta coefficients of each independent variable. Otherwise, a quasi mediation effect is assumed when there is non significant reduction of beta coefficient is found. Another condition is that the mediator must be significantly related to the dependent variable.

Since all independent variables are the significant predictors of customer trust (based on the result of the second multiple regression analysis), and no significant reduction of beta coefficient is found for all the independent variables, customer trust is confirmed to act as a quasi mediator between the independent variables (factors on online shopping) and customer purchase decision. The result indicates that trust must be considered by the online vendor if they want customers to purchase products and services from their websites.

Implications of the Study

The present study has successfully proven that customer purchase decision in the online shopping context is influenced by the three out of five factors as conceptualized by the previous researchers. The significant factors are perceived risk, perceived benevolence, and perceived integrity. The non-significant factors are perceived convenience and perceived competence. Although the present study is considered rigorous in its conceptualization of the factors, its methodology and analysis, future studies are recommended to further confirm the findings.

Perceived risk, perceived benevolence and perceived integrity are found to be significant predictors of customer purchase decision. With regard to the practical implications of the study, the online vendors must make sure that these three factors are established by putting up relevant information on their websites. The genuine promises to help customers must be carefully crafted and clearly mentioned on the websites. These reflect the genuine interest of the online vendors to help customers as a result the levels of customers' perceived benevolence increase.

In order to address the issue of perceived risk of online shopping, the online vendors must clearly state all the costs involved in the online transaction without hidden costs, which might possibly lead to unfavourable customer purchase decision. Furthermore, the online vendors must use reliable payment methods that are completely secure and verified by third parties such as banking institutions. There must also be statements by the online vendors that guarantee the prompt delivery of the products as promised on the websites.

Another concern pertaining to online shopping is the sincerity of the vendors. The vendors must show that they are concerned with the interest of their customers. Any issues that emerge from the online transaction should be promptly addressed by the vendors without charging additional fees to their customers. Feedback and complaints from customers should be properly managed and the outcome should be communicated to the customers. It is important to highlight that unhappy customers will spread negative words-of-mouth to other customers that consequently affect the business performance in the long run.

Conclusion

The present study on the influence of online shopping factors on customer purchase decision is undertaken because the number of customers who engage in online purchasing is relatively low. Their most common concerns are regarding financial problems, data security, performance issues, and trust. Lack of existing studies on this field has triggered the effort to conduct the present study to investigate the online shopping factors that contribute to customer purchase decision. Out of five independent variables identified in the study, three factors namely perceived risk, perceived benevolence and perceived integrity are found to significantly influence customer purchase decision. Customer trust is proven to act as quasi mediator to affect the relationship between the three factors and customer purchase decision. The findings from the study will serve as the foundation for future researchers to make further exploration on customer purchase decision in the online shopping context. On the other hand, online vendors should take necessary actions to ensure that they are genuinely concerned with their customers' interests and will keep all the promises mentioned on their business websites.

Conflict of interest

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