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Article

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MARKETING | RESEARCH ARTICLE

Key antecedents of consumer purchasing behaviour in emerging online retail market

Ni Luh Putu Indiani^{1*} and Sagung Ningrat Shinta Febriandari¹

Abstract: Despite rapid growth in Indonesian e-commerce transactions, the profile is far below its actual potential compared to other Asian countries. It implies a low intention of Indonesians to conduct an online purchase. Therefore, a study that examines key factors that influence online purchase intention becomes necessary. This research aimed to analyse the influence of perceived benefit and perceived risk toward online purchase intention and actual purchase. A survey was conducted to collect data. Respondents were consumers who have bought retail products online. This study received 450 valid samples. Data was analysed using Partial Least Square. The result showed online purchase intention positively and significantly influence actual purchase. Perceived benefit has a positive and significant influence on online purchase intention and actual purchase. Remarkably, perceived risk does not exert a significant influence on online purchase intention and actual purchase. These insignificant relationships are allegedly due to online practices implemented in the marketplace as well as the respondents' characteristics. As managerial implications, it is recommended that online retailers emphasize the benefits of online shopping in their communication material and provide enhanced benefits to online consumers to increase online sales.

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PUBLIC INTEREST STATEMENT

Indonesia's e-commerce market undergoes a growth phase reflected in a significant increase in annual e-commerce transactions. Despite the rapid growth, the profile is far below the actual potential compared to other Asian countries' e-commerce profiles. Therefore, it was concluded that Indonesians' intention to shop online and online purchases made were still relatively low. To increase online purchase intention, which could foster Indonesia's economic growth, research needs to be conducted to analyse factors that influence online purchase intention and actual purchase. From field observation and empirical review, perceived risk and online purchase intention are found to be dominant factors determining online purchase. Therefore, this study examined the influence of these factors on online purchase intention and actual purchase. Perceived benefit has a positive and significant influence on online purchase intention and actual purchase, while perceived risk does not. The unique characteristics of Indonesia's e-commerce market that possibly lead to this result are discussed.

Subjects: Consumer Psychology; Business, Management and Accounting; Marketing Research Article

Keywords: Online purchase behaviour; perceived benefit; perceived risk; online purchase intention; online purchase

1. Introduction

Indonesia's e-commerce market especially the retail industry is undergoing a growth phase. It is reflected in a significant increase in Indonesia's e-commerce transactions annually. Data reported by the Bank of Indonesia stated that in 2017, the value of Indonesia's e-commerce transactions reached IDR 81 trillion, increasing rapidly to IDR 146 trillion in 2018 and IDR 265 trillion in 2020 (Pink, 2020). Despite the rapid growth, the profile is far below the actual potential compared to the e-commerce profile of other Asian countries. Of all Indonesian people who have internet access, only 23 percent are involved in online shopping (Zuraya, 2019). This figure is still far behind Asian countries such as South Korea, Japan, and Taiwan, with penetration of online shopping averaging 70 percent of the population (Statista, 2016), Singapore and Malaysia also have higher penetration rates of 60 percent and 52 percent respectively. Based on these facts, it was concluded that Indonesians' intention to shop online and online purchases made were still relatively low. To increase online purchase intention, which could foster Indonesia's economic growth, research needs to be conducted to analyse factors that influence online purchase intention and actual purchase. Therefore, this study examined the influence of perceived benefit and perceived risk on online purchase intention and actual purchase.

Consumer perception that online shopping provides several benefits is a driving factor for online shopping intention. Online shopping is a form of innovation of offline shopping, which is carried out in an online platform with internet technology. Thus, consumers' adoption of online shopping is closely related to technology adoption behaviour. When tracing the factors that encourage intention to adopt online shopping, it is relevant to start by identifying the factors that drive technology adoption. In Technology Acceptance Model (TAM) it is formulated that usefulness encourages technology adoption. Similarly, if consumers perceive there is high usefulness of online shopping activities, intention to shop online becomes higher. Several empirical studies found that perceived usefulness or benefit significantly influences online shopping intention (Al-Debei et al., 2015; Mohamed et al., 2014). Jadhav and Khanna (2016), Laing and Royle (2013), and Sohail (2014) mentioned several benefits that encourage consumers to shop online, such as lower prices, attractive offers, practicality, time saving, and diverse choices.

From field observation and empirical review, perceived risk is found to be a dominant factor preventing consumers from making online purchase. Perceived risk is consumer's perception of the likelihood that something will go wrong and cause severe consequences from purchasing a product or service online (Akhlaq & Ahmed, 2016). Indonesia E-Commerce survey showed almost 60 percent of respondents perceived a high risk of fraud in online transaction (SWA, 2016). Align with these results, empirical studies found that perceived risk strongly prevents consumers from making online purchase. Xu et al. (2010) found that online purchase is negatively affected by perceived risk. Perceived risk, especially transaction risk impedes online purchases (D'Alessandro et al., 2012). Cunningham et al. (2005) found that perceived financial risk predominantly inhibits online purchase at purchase decision stage. This study aims to analyse the influence of perceived risk as well as perceived benefit on online purchase intention and actual purchase. Intention itself is the antecedent of actual purchase as formulated in Theory of Planned Behaviour (TPB).

The inclusion of perceived risk and perceived benefit in the research model is intended to explain change or variant in actual purchase that has not been able to be explained by online purchase intention alone so that the model could explain and predict online purchase behaviour more comprehensively. The inclusion of perceived risk in the research model is based on perceived risk theory, perceived benefit variable is derived from TAM, and intention-actual purchase relationship

is based on TPB. Therefore, this research model is developed based on those three theories. In addition, the model development is not only prompted by field observation and empirical studies, but also by several criticisms toward the intention-behaviour relationship. Sheppard (1988) stated that the influence of intention on behaviour seemed to oversimplify the decision-making process. Bray (2008) stated that TPB does not give space or include factors that hinder behaviour in addition to factors that encourage it. These became the rationale to examine the influence of perceived risk as a factor hindering actual purchase.

2. Literature review and hypotheses formulation

2.1. Link between perceived benefit, online purchase intention, and actual purchase

2.1.1. Technology acceptance model (TAM)

TAM explains factors that encourage individual intention in using new technology. Perceived usefulness and perceived ease of use are factors that shape individual attitude and intention toward new technology, which further influence its adoption. TAM is commonly used in research related to user acceptance and adoption of new technologies such as hardware, software, or new systems such as internet banking, online shopping, e-wallet, and the like. New technology, as well as innovation, are seen by society as having a high degree of uncertainty because not much information is known. Thus, before adopting new technology, people need to feel confident that it is useful or in other words provides benefits. Online shopping is a form of innovation in shopping using internet technology, therefore, consumer's adoption of online shopping is also determined by perceived usefulness or benefit of online shopping. Thus TAM becomes the theory underlying this research.

2.1.2. The influence of perceived benefit on online purchase intention and behaviour

When customers deal with the company through its website, they receive service with less time and less effort. Therefore, it contributes significantly to the satisfaction and continuity of purchasing from the company (Al-Hawary & Alhajri, 2020). Perceived benefit in the e-commerce context is consumer's perception that shopping online provides material or non-material benefit and offers more advantages over offline shopping. Shopping in online platforms, consumers can search for information, compare prices with just a few clicks, and browse for products comfortably using devices without the pressure to buy. High perceived benefit increases consumer's intention to shop online. Al-Debei et al. (2015) stated that the benefits of online shopping include lower price, time flexibility, and privacy form a positive attitude towards online shopping. Sohail (2014) mentioned several online shopping benefits including convenience, no pressure to buy, product diversity, and ease in comparing prices and features. Jadhav and Khanna (2016) found that perceived benefit encourages consumers to shop online, these benefits include product availability, low prices, special offers, ease in making product comparisons, convenience, time efficiency, and product diversity. Madan and Yadav (2018) found that online shopping sites offer a range of benefits to the consumers in the form of discount coupon codes, loyalty points, cash rewards, and the like, which positively influences the consumers' intention toward online shopping. Mohamed et al. (2014) found that perceived benefit has a positive and significant effect on consumers' intention to shop online, where benefits include improvement in effectiveness, productivity, and performance when shopping online. Liu et al. (2013) found that three types of perceived benefit (price, convenience, and recreational) have a significant positive influence on consumers' attitudes and intentions to shop online. Al-Maghrabi et al. (2011) and Wen et al. (2011) found perceived benefit and online shopping intention have a positive relationship.

Perceived benefit in online shopping is an important factor that motivates consumers and shapes their intention to shop online. The higher the perceived benefit of online shopping, the higher consumers' tendency to shop online. Therefore, it is hypothesized that:

H1: Perceived benefit has a positive and significant impact on online purchase intention

H2: Perceived benefit has a positive and significant impact on actual purchase

2.2. Link between perceived risk, online purchase intention, and actual purchase

2.2.1. Perceived risk theory

The concept of perceived risk in marketing literature was introduced by Bauer (1960) who stated that consumer behaviour contains negative consequences that consumers cannot anticipate. Risk is formed by two dimensions: uncertainty and consequence (Cunningham, 1967). Uncertainty is a function of the future that is unknown, uncontrollable, and unpredictable. Consequences are limited to unexpected consequences, in the topic of this study for example, negative consequences that may arise as a result of the online transaction. In an online purchase environment, perceived risk tends to be higher than in an offline environment (Cunningham et al., 2005). This is due to the absence of face-to-face interaction in internet communication (Cheng et al., 2012), thereby limiting consumers' contact with the physical elements of the product to assess its quality (Martin et al., 2011). This characteristic of the online environment raises consumers' anxiety that the products they wish to purchase online will not meet their expectations in terms of quality (Chang & Chen, 2008). In other words, there are concerns that online transaction has the potential to not deliver the expected financial value.

Online perceived risk is defined as consumer perception that negative consequences will occur due to online transactions (Kim et al., 2007). Financial risk is the dominant type of risk that inhibits online purchase (D'Alessandro et al., 2012; Liu & Forsythe, 2010; Xu et al., 2010), therefore, this study will focus on perceived financial risk. With its virtual nature, online transaction is vulnerable to fraud. Therefore, it tends to cause negative consequences for online consumers. Thus, perceived risk theory is an important theory in analysing consumer purchase behaviour in an online environment.

2.2.2. The influence of perceived risk on online purchase intention and actual purchase

There are several types of perceived risk in online shopping environment: psychological risk, channel performance risk, physical risk, transaction risk, social risk, financial risk, time risk (Akturan & Tezcan, 2012; Zhao et al., 2008), and product performance risk (Kim & Lennon, 2013; Nepomuceno et al., 2012). Psychological risk represents the feelings of anxiety associated with an online transaction. Channel performance risk implies the vulnerability of online payment systems to virtual crime. Physical risk is associated with physical fatigue that occurs as a result of browsing and conducting an online transaction. Transaction risk is the risk of leaking credit card data and confidential personal data. Social risks are associated with the views of people closest to the consumer regarding online shopping. Financial risks include the risk of losing money due to online transactions and online purchase gives a low value of money. Time risk is time spent learning about the system and conduct online shopping activities. Product performance risk is related to the inability of products purchased online to meet consumer's expectations.

Several studies found that perceived risk lowers consumer intention to purchase online. Perceived risk which consists of the financial, transaction, and channel performance risk has a negative and significant impact on consumers' intention to conduct an online transaction (Zhao et al., 2010). Cheng et al. (2012) found that perceived transaction and product performance risk have a negative and significant influence on online purchase intention. Perceived product performance, financial, social, and time risk have a negative and significant impact on online purchase intention (Chang & Chen, 2008). Madan and Yadav (2018) argued that online shopping involves undertaking financial transactions as well as the exchange of important personal information, which is perceived to be risky by the users. Hence, it is important to reduce the risk perceived by consumers while shopping to increase its adoption rate. Online purchase intention is significantly influenced by perceived product performance and financial risk (Kim & Lennon, 2010), as well as perceived channel, transaction, and social risks (Martin et al., 2011). However, some studies found different findings that perceived risk has an insignificant impact on consumer's intention to purchase online (Broekhuizen & Huizingh, 2009; Park & Jun, 2003).

Regarding the influence of perceived risk on actual purchase, it was found that online purchase is inhibited by perceived product risk (Liu & Forsythe, 2010); however, this study also found a lack of significant influence of perceived channel risk on the actual purchase. Xu et al. (2010) found that actual online purchase is influenced by perceived risk, specifically transaction risk (D'Alessandro et al., 2012), and financial, transaction, as well as psychological risks (Park & Jun, 2003). Perceived financial risk was found to predominantly influence purchasing decisions (Cunningham et al., 2005). Those empirical studies provide insight on the relationship between discussed variables, and present findings inconsistency, which underlying the following hypothesis.

H3: Perceived risk has a negative and significant impact on online purchase intention

H4: Perceived risk has a negative and significant impact on actual purchase

2.3. Link between online purchase intention and actual purchase

2.3.1. Theory of planned behaviour (TPB)

This theory postulates that attitude, subjective norm, and perceived behavioural control (PBC), shape intention, and intention further drives how one behaves. This theory becomes the foundation of this study, analysing the influence of intention on the actual purchase. TPB has been used to examine human behaviour in many fields, such as in marketing, in new environments such as online, and in new issues such as eco-friendly behaviour, sustainability issues, and entrepreneurial behaviour. This study analyses the influence of online purchase intention on online purchase behaviour; therefore, TPB is an important theory as the foundation of this study.

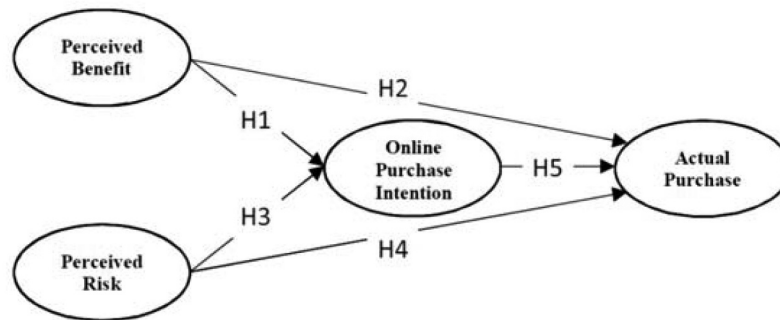
2.3.2. The influence of online purchase intention on actual purchase

TPB states that intention is a strong predictor of behaviour. Relevant studies have concluded the significant impact of online purchase intention on the actual purchase. Online purchase intention strongly drives actual purchases in the online retail industry (Indiani & Fahik, 2020) and the hotel industry (Indiani et al., 2015). Mei et al. (2011) found that online purchase intention formed by eWOM, positively and significantly affects actual purchase. Using Technology Acceptance Model as a research foundation, Lim (2013) found a positive and significant effect of online purchase intention on the actual purchase. Guo and Barnes (2011) found that actual purchase is strongly affected by online purchase intention, where intention in this study is formed by intrinsic, extrinsic, and social influences. Hsieh and Liao (2011) found that online purchase intention is shaped by attitude and belief, where intention significantly encourages actual purchase. Lin (2008) found that attitudes, subjective norms, and perceived risk are significant antecedents of online purchase intention, and intention strongly influences actual purchase. Madan and Yadav (2018) found that online purchase intention is a significant predictor of online shopping adoption. Online shopping is a relatively new concept, and therefore an individual's inclination toward a new and innovative concept or technology will have a strong impact on the consumers' adoption behaviour. When consumer possesses high intention to shop online, they are more likely to conduct an online purchase. These empirical findings underlie the following hypothesis:

H5: Online purchase intention has a positive and significant impact on actual purchase

The research conceptual framework is illustrated in Figure 1.

Figure 1. Conceptual Framework.



3. Research method

To achieve the research objective, which is to examine the impact of several dependent variables on the independent variables, this study uses a quantitative approach with a survey method. The quantitative approach investigates a social or humanitarian problem by testing a theory that is built on several variables, measured by numbers, and analyzed by statistical procedures, to ensure the correctness of the predictive generalizations of the theory (Creswell, 2003). Survey research involves the collection of information from a sample of individuals through their responses to questions (Check & Schutt, 2011). Survey research aims to study the characteristics of a target population, and understand their attitudes, perceptions, motives, beliefs, and, in general, collect their opinions on a phenomenon of interest to the researcher (Chrysochou, 2017). The survey method was used because of the suitability of its characteristics with the purpose of this study, which is to understand the perceptions and opinions of the target population regarding online shopping behaviour. The quantitative approach with the survey method is also the suitable method when the research objective is to test hypotheses, identify statistical relationships between variables, make predictions, and generalize research results to the research population (Chrysochou, 2017); which are the objectives of this research.

A survey was conducted to collect data using a questionnaire as the instrument. A preliminary survey was conducted on 30 respondents to assess construct measurement instruments. The results showed that research constructs were one-dimensional and reliable with alpha levels above 0.6. The survey was then conducted on consumers who had shopped for retail products online, and this study received 450 valid samples.

The minimum number of samples was determined using Slovin's formula. Slovin's formula allows a researcher to sample the population with a desired degree of accuracy, determining the sample size needed to ensure reasonable accuracy of the results (Ellen, 2018). Slovin's formula is written as:

$$n = N \div (1 + Ne^2);$$

$$n = 31.535.000 \div (1 + (31.535.000 \times 0.05^2)); n = 399,99,$$

$$n = 31.535.000 \div (1 + 315.350);$$

where n = number of samples; N = total population; e = error tolerance.

The population in this study is online consumers in Indonesia, constituting 11.9 percent of Indonesia's total population (Kompas, 2018), which is 265 million people; therefore, 11.9 percent of the total population is 31.535.000 people. The error tolerance used in this study is 0.05, as mentioned by Sarwono (2013) and Cramer and Howitt (2004) that the threshold applied in social science research commonly ranges from <0.01 to 0.1. From the calculation using Slovin's formula, the size of the sample recommended for this study is 399.99 or 400. In determining sample size, Hair Jr et al. (2010) also stated that the minimum ratio of observations to measured variables is

Table 1. Respondent Characteristics

Characteristic	%
<i>Gender</i>	42
Male	58
Female	
<i>Age</i>	9
Below 20	73
20–30	9
31–40	5
41–50	5
Above 50	
<i>Education</i>	25
High school	9
Diploma	57
Bachelor	8
Master	2
Doctor	
<i>Familiarity in online shopping</i>	15
Not familiar	64
Familiar	21
Very Familiar	

5:1. This study uses 17 measured variables; therefore, five times the number of measured variables are 85 observations or samples. This study received 450 valid samples which have met the minimum criteria required in Slovin's formula and Hair Jr et al. (2010).

To ensure sample representativeness, the sample is proportionately stratified to the population profile. Hijrah (2017) mapped the profile of Indonesia's online consumers, as follows: online consumers consisted of 53 percent women and 47 percent men; 90 percent were familiar and very familiar with online shopping activities and the remaining 10 percent were novice or less familiar; over 80 percent of consumers had an academy or university degree; and in terms of age, Tashandra (2018) stated that the majority of Indonesia's online consumers were aged 15–34 years, which is equal to 80 percent. This online consumer profile was the basis for taking a sample of respondents. Respondents' profile in this study is shown in Table 1. To further enhance sample representativeness, respondents were taken from five cities in Indonesia: Jakarta, Surabaya, Medan, Bandung, and Makassar, under consideration that those cities have the highest online shopping penetration in Indonesia, with a penetration rate above 57 percent (Bachdar, 2018). Thus, these cities are the proper area to observe online purchase behaviour to obtain an accurate and comprehensive picture of consumer purchase behaviour in the emerging online retail market.

Aside from a stratified technique, this study also used the purposive sampling technique to select the sample. This study set the sample criteria, who were consumers who shopped for any retail product online in e-marketplace in the most recent month. These time criteria were intentional so that respondents could still clearly recall their experience in performing online purchases, thus resulted in accurate responses to the research questionnaire. The E-marketplace is the most popular platform to conduct online shopping among Indonesian online consumers, therefore this platform was chosen as online shopping place criteria.

The structural model was tested with the partial least square (PLS) technique, which combines multiple regression and factor analysis to perform a simultaneous examination of either the relationship between the measured variables and the latent constructs or the relationship between latent constructs.

4. Result

4.1. Respondent characteristics

Respondents were predominantly young consumers aged 20 to 30, and 67 percent had a college degree, as shown in Table 1. There was rough parity between the number of male and female respondents. Large parts of respondents were familiar with online shopping activities, with 85 percent of respondents having a moderate to a high level of familiarity.

4.2. Measurement model evaluation

All indicators obtained a p value <0.001 as shown in Table 2, meaning that all indicators can measure the construct significantly. The factor loading of the research constructs spanned from 0.62 to 0.91, a good rule of thumb is that the factor loading should be 0.5 or higher (Chin, 1998; Hair Jr et al., 2010). High loading values indicate that the measures converge on a common point, namely the latent construct. The results showed that the Average Variance Extracted (AVE) value of each construct is 0.6 and above, which means that all constructs have adequate convergence. The Composite Reliability (CR) value of each construct is above 0.8, this means that all indicators consistently reflect the same latent construct.

Discriminant validity measures the extent to which a construct differs from other constructs, and where a construct is unique and explains phenomena that are not explainable by other constructs. The discriminant validity test is conducted by comparing the construct's AVE value with a square correlation between the construct and the construct associated with it. If the AVE value is greater than the quadratic correlation between constructs, then discriminant validity has been fulfilled (Hair Jr et al., 2010). The results showed that the AVE value of each construct is greater than the construct's square correlation with other constructs, as shown in Table 3, which indicates a good discriminant validity.

4.3. Structural model evaluation

The goodness-of-fit (GoF) value of the proposed model is 0.531. GoF shows a good fit for the model, representing the similarity of the theory (estimated covariance matrix) to reality (the observed covariance matrix). The criterion for model strength based on GoF according to Ghazali and Latan (2012) are as follows: 0.36 (large), 0.25 (medium), and 0.10 (small). This means that with a GoF value of 0.531, the model is a good predictive model.

4.4. Hypotheses testing

In hypothesis testing, H_0 is rejected if p value <0.1 , the threshold applied in social science research which commonly ranges from <0.01 to 0.1 (Cramer & Howitt, 2004; Sarwono, 2013). Table 4 shows the path coefficient of each relationship and its p value. H_1 is accepted where a positive and significant relationship is confirmed between perceived benefit and online purchase intention. H_5 is accepted where online purchase intention has a positive and significant influence on the actual purchase. H_3 and H_4 are rejected, indicating that perceived risk has an insignificant influence on both online purchase intention and actual purchase. Testing H_2 , the p value falls outside the accepted threshold, indicating that perceived benefit insignificantly influences actual purchase. However, observing the significant influence of perceived benefit on online purchase intention, it was suspected that online purchase intention completely mediates the relationship between perceived benefit and actual purchase. Therefore mediation test was conducted.

4.5. Mediation test

Mediation test was performed using examination method by conducting two-step analyses, first analysis without mediating variable and second analysis involves mediating variable. Partially tested without exerting mediating variable, perceived benefit shows significant impact on actual purchase ($p < 0.1$, $\beta = 0.41$), but when online purchase intention is included in the model as a mediator, the effect of perceived benefit on actual purchase becomes insignificant with reduced path value ($p > 0.1$, $\beta = 0.10$). It means that online purchase intention completely mediates the influence of perceived benefit on the actual purchase. Therefore, H_2 is accepted where perceived

Table 2. Construct Validity and Reliability

Measurement items		p value	Loading factor	AVE	CR
Perceived Benefit					
X1.1	Require less effort	<0.001	0.74	0.60	0.89
X1.2	Can be done at anytime	<0.001	0.87		
X1.3	Convenience of shopping from home	<0.001	0.69		
X1.4	Lots of attractive offers	<0.001	0.62		
X1.5	Cheaper price	<0.001	0.84		
X1.6	Product diversity	<0.001	0.79		
Perceived Risk					
X2.1	Risk of financial loss	<0.001	0.74	0.62	0.89
X2.2	Providing credit card information is unsafe	<0.001	0.72		
X2.3	Product not match the image/ description	<0.001	0.82		
X2.4	Product is not delivered	<0.001	0.80		
X2.5	Shopping online is prone to fraud	<0.001	0.86		
Online Purchase Intention					
Y1.1	Intend to shop online	<0.001	0.77	0.62	0.83
Y1.2	Will shop online in the near future	<0.001	0.87		
Y1.3	Willing to provide credit card information	<0.001	0.73		
Actual Purchase					
Y2.1	Has been shopping online	<0.001	0.70	0.71	0.88
Y2.2	Shop online frequently	<0.001	0.91		
Y2.3	Has bought many products online	<0.001	0.91		

Table 3. Discriminant Validity

Construct	X1	X2	Y1	Y2
X1	0.763			
X2	-0.017	0.789		
Y1	0.561	-0.096	0.790	
Y2	0.431	-0.035	0.648	0.845

Diagonal value: Sq. root of AVE; Non-diagonal value: inter-construct correlations

Table 4. Hypothesis Testing and Path Coefficient

Hypothesis	Path Coefficient	p value	Result
H1	0.54	<0.001	Accepted
H2	0.10	0.15	Rejected
H3	-0.09	0.17	Rejected
H4	0.01	0.45	Rejected
H5	0.60	<0.001	Accepted

benefit has a significant influence on actual purchase, which in this case indirectly through online purchase intention. On the other hand, online purchase intention does not mediate the influence of perceived risk on the actual purchase. Mediation can be tested if significant relationships exist between exogenous and mediating constructs, as well as between exogenous and endogenous constructs. The influence of perceived risk on mediating construct (online purchase intention) is not significant with p value > 0.1, therefore online purchase intention does not mediate the influence of perceived risk on the actual purchase.

5. Discussion

5.1. The influence of perceived benefit on online purchase intention

The results showed that perceived benefit has a positive and significant impact on online purchase intention. This means that when consumers perceive the high benefits of online shopping, the higher their intention to shop online. It is plausible considering the shift in consumer behaviour who are increasingly savvy in using internet technology. Consumers are progressively integrating internet technology into their everyday life to make work or other activities easier (Shaqiri, 2015), these activities include shopping activities. Consumers tend to turn to vendors that can integrate internet technology into their supply chain (Rochaety, 2017), thus providing convenience especially for seeking information, communicating, and conducting a transaction. Integrating information technology in the supply chain provides a competitive advantage for businesses (Shaqiri, 2015). When internet technology is integrated into shopping activities, consumers obtain several benefits, such as shopping with the convenience of home, saving time and energy, which can be done at any time without the limits of operating hours, having access to various types of products within clicks distance, cheaper prices with various special offers as online vendors can operate more efficiently by bringing their business online. These benefits bring superiority to online shopping over offline shopping.

Cheaper price benefit seems to be the driving factor behind online purchase adoption. Indonesia has one of the most attractive emerging middle-classes in the world. By 2030, an estimated 90 million people will have joined the consuming class. That said, Indonesians are true hunters for sales and discounts. Locals have a strong proclivity toward finding the best prices at all costs. However, the bargain-hunting drive spans the wealth spectrum. More

than 60 percent of the overall population says they enjoy searching for discounts and promotions, and more than 70 percent of the country's affluent population says they enjoy doing so. (Cosseboom, 2015). This emerging market consumer characteristics might be the reason why perceived benefit in terms of cheaper price has a more significant influence than perceived risk on online purchase intention. In consumer behaviour theory and economic theory, income is always regarded as an important factor to predict consumer demand (Bae & Lee, 2011). Punj (2012) found that income positively affects a customer's preference to save time in purchasing activities but negatively relates to the preference to save money. The finding means high-income consumers preferred time, while the low-income group values money. Li and Hou (2019) mentioned that lower-income consumers tend to have more interest in saving money.

5.2. The influence of perceived benefit on actual purchase

From the mediation test, it is found that perceived benefit has a significant influence on actual purchase through online purchase intention. When consumers perceive shopping online provides plenty of benefits, their intention to shop online is escalated, intention eventually turns into actual purchases. In the current era of digitalization, practicality and convenience are increasingly sought by consumers when shopping (Gao & Bai, 2014). Saving time plays an essential part in consumers' everyday life, and this has an effect on their shopping habits as well (Coşar et al., 2017). Online shoppers tend to be more time-constrained (Hernandez et al., 2011; Levin et al., 2005), thus saving time drives consumers to shop online (Li & Hou, 2019). Conventional shopping that requires much time and energy becomes irrelevant in today's dynamic and digital era. Therefore vendors need to provide online sales services aside from offline stores. This online service provides benefits over offline shopping such as time flexibility, lots of attractive offers, cheaper price, requires less effort, and diverse products. These benefits are in line with consumer needs in this digital era, thus increasing intention to shop online and actual purchases will follow.

However, considering the characteristics of the emerging online retail market, where the level of consumer trust is still fairly low, the presence of a physical store is necessary to create trust. Many shoppers still don't trust brands whose presence is only online, due to a lack of physical interaction. In Indonesia, physical stores also function as distribution points to respond to the challenges of logistics infrastructure in Indonesia, which has not been well developed and connected. The existence of a physical store also provides more advantages. A physical store can serve as micro-warehouses and local distribution channels that often resolve distribution issues and ensure on-time delivery of products. In addition, physical stores also function as payment points to respond to challenges in the payment system where there are still many unbanked consumers with no bank accounts and credit cards to complete payments. Credit card penetration in Indonesia is the lowest in ASEAN at 1.6 percent which poses a great challenge. Besides, only 36 percent of the citizens have a bank account due to low financial literacy (Tech Wire Asia, 2018). However, stores must also integrate digital experiences with their customers and ensure a seamless omnichannel journey for consumers while preserving the value of each experience category (Exaque, 2019).

In addition, respondent characteristic also explains the significant influence of perceived benefit on the actual purchase. Respondents are predominantly young consumers aged 20–40 years who are technology-literate, therefore they are highly aware of online shopping activity and its benefits (Kowalska, 2012). With a high level of awareness and positive attitude, online purchase intention is high thus leads to online purchases. Young people are more likely to make online purchases (Bouis, 1994). Young people use e-commerce much earlier, spend more time surfing the Internet, and prefer to obtain information from the Internet (Bellman et al., 1999). In addition, young consumers trust e-commerce more than seniors (Chiou-Wei & Inman, 2008). Li and Huang (2014) found that saving time benefit in online shopping is more pronounced for consumers who are relatively

young. Li and Hou (2019) found that young consumers exhibit a greater tendency toward saving money and time in online shopping.

5.3. The influence of perceived risk on online purchase intention and actual purchase

Perceived risk has a negative but not significant impact on online purchase intention and actual purchase. It means perceived risk in the form of financial loss, fraud risk, product performance risk, and undelivered products does not significantly affect consumers' intention to shop online. This finding is noteworthy considering that online shopping holds risks and is prone to fraud, moreover previous studies found a significant impact of perceived risk toward online purchase intention and actual purchase. This insignificant influence might be explained by the shift towards digitalization, where technology is integrated into everyday life and business (Kowalska, 2012). Consumers get tremendous benefits from digitizing shopping activities which enable consumers to engage in more cost-effective product and vendor search, reduce canvassing costs, and expedite choice decisions (Ganac, 2018). Choosing to shop online, consumers are weighing more on the benefits rather than the risks. Although online shopping is often associated with higher levels of risk than conventional shopping, this form of sale also provides many prospects and convenience and is continuously growing in popularity (Kowalska, 2012).

In addition, the respondents' characteristics might also explain this insignificant influence. Young consumers possess good knowledge of online shopping activities and can navigate in the digital world to pursue various benefits (Kowalska, 2012). Therefore, with their intelligence, they can recognize fraud indications thus they are exposed to a low level of risk. This argument is reflected in a study by Liu et al. (2013) with the majority of the respondents are young respondents aged 20–30 years old, which found that various perceived risks do not significantly influence consumers' attitudes toward online purchase. They stated that although internet shoppers perceive risks, these risks do not significantly influence their online shopping behaviour. Madan and Yadav (2018) stated that age influences shopping behaviour, younger individuals are more technologically savvy and have more experience with the internet than their older cohorts.

Furthermore, Sims and Xu (2012) found that consumers who are familiar with online shopping and more educated are exposed to a lower level of risk. This argument is reflected in Dang and Pham (2018) study who found that perceived risk represented by the perception of vendor reliability is unrelated to online purchase intention. Perceived reliability in their study is represented by product will be delivered and on time, and the product will accurately match its description on the website. It is argued that perceived risk is viewed as a minor factor that cannot sufficiently influence consumers to purchase online. Similar to this study, the majority of the respondents in their study is familiar with online shopping, with 38 percent have a moderate level of familiarity and 25 percent being highly familiar. It denotes that in a risky online environment, familiarity or experience is an important determinant of online purchase (Sorce et al., 2005).

The insignificant influence of perceived risk on online purchase intention and actual purchase might also be explained by consumers' preference to shop in a large and renowned e-marketplace. This large e-marketplace has an ordering system that protects consumers from fraud, which enables the consumer to submit a claim if the product delivered does not match the description or arrived in less quantity. If the consumer can provide proof of their claim, their payment will not be forwarded to the seller but returned to them instead. Thus, despite the high perceived risk in online shopping, consumers are still willing to shop online as the ordering system implemented by the e-marketplace protects them in the event of fraud.

In an emerging online retail market, this refund and return guarantee become a necessary mechanism to attract more consumers. As of now, the online retail industry is still not as mature, and online purchase penetration is much lower than that of other countries in the region. Indonesians simply don't trust online shopping yet and worry about payment safety, lack of sales support, and unreliable quality (Rastogi, 2019).

5.4. The influence of online purchase intention on actual purchase

Online purchase intention shows a positive and significant influence on the actual purchase. When consumer possesses high intention to shop online, they are more likely to make an online purchase and more frequently. This finding aligns with TPB which states that intention encourages behaviour. Online purchase intention is represented by desire to shop online, make online purchases in the future, and willingness to depend on online vendors regarding personal data security. Consumers will only perform online transactions if they have the desire to shop online, and most importantly, are willing to entrust their personal data security to the online vendor. This desire and willingness are prerequisites for consumers to conduct an online purchase. Privacy policy about the confidentiality of customer data and payment information is a decisive factor of choosing or avoiding an online vendor, in an environment with an increasing number of data harms and piracy, this factor has an increasing significance (Coşar et al., 2017).

6. Conclusion

In general, this research provides insight into consumer behaviour in the online purchase context. The study findings are summarized as follows. First, perceived benefit has a positive and significant impact on online purchase intention and actual purchase. This is due to the shift toward digitalization where consumers are looking for the practicality and convenience that online shopping offers. These significant relationships can also be explained by the value-intention framework developed by Dodds and Monroe (1985), which assumes that individual willingness to perform a certain behaviour is directly influenced by the perceived value of behaviour consequences. Perceived value is the consumer's overall assessment of the value of a product or activity by comparing what is gained and the sacrifice that must be given. In the context of online shopping, "gain" is represented by perceived benefits, and sacrifice includes monetary cost which is price and non-monetary cost such as various forms of risk. When the benefits of online shopping are perceived as higher than the sacrifice given, this activity is said to have a positive value. Thus, if the value of online shopping is perceived to be positive, consumers have incentives and motivation to conduct online shopping.

Second, online purchase intention has a positive and significant impact on the actual purchase. This aligns with TPB postulation. When consumer possesses high intention to shop online, they are more likely to make an online purchase and more frequently. Third, perceived risk has an insignificant impact on both online purchase intention and actual purchase. This finding is noteworthy considering that online shopping holds risks and is prone to fraud. These insignificant relationships might be explained by respondents' characteristics who are mostly familiar with online shopping. Familiarity means better knowledge, thus consumers with a high level of familiarity are exposed to a lower level of risk even in a high-risk online environment compared to those who are less familiar.

In addition, e-marketplaces in Indonesia implement a pro-consumer ordering system and offer cash on delivery (COD) payment where consumers will make payment only after their order is delivered with the right specification. Therefore, even though consumers perceive high risk in online shopping due to unsecure credit card information; the product doesn't match the image or description given, or the product is not delivered, they are still willing to conduct online purchases by taking advantage of the COD method as a mean to mitigate these risks.

Much like in any other emerging online market, Indonesians are wary of online payments. Most e-commerce transactions are made through either direct bank transfer or using cash-on-delivery, thus limiting the expanse of e-commerce in the country. Furthermore, there is low financial literacy and a high number of unbanked customers. Credit card penetration in this country is the lowest in ASEAN with only 1.6 percent which poses a great challenge. Besides that, only 36 percent of citizens have a bank account due to low financial literacy. With low financial literacy customers, e-commerce players may need a strategy on how to educate their users to pay online practically and securely. Lack of bank account holders may also make it challenging to reach customers in rural or remote areas. Other than that, a localized payment system is still essential for players to

expand their payment methods. Start from a bank transfer, cash on delivery, offline payment, to fintech implementation for those who have neither bank account nor credit card (Tech Wire Asia, 2018). Recent developments in the payment space, however, suggest that things are changing for the better. Alternative electronic payment mechanisms are slowly gaining a foothold in the country and e-wallets such as Go-Jek, T-cash, Doku, GrapPay, and Veritrans are gaining popularity among consumers. (Aseanbriefing). This is one of the reasons for e-marketplace popularity among online consumers as it offers various payment methods, including ones that are convenient for unbankable consumers such as COD and e-wallet.

6.1. Managerial implication

The study results indicate that perceived benefit is an important factor to emphasize to enhance online purchase intention and actual purchase. To offer higher benefits, online retailers need to improve their performance on several aspects, such as offering cheaper prices over offline stores, offering various special offers, improving product variety, communicating the benefits of online shopping to consumers such as shopping at home convenience, saving time and energy, and flexibility with no limit of operating hours.

Nevertheless, despite its insignificant influence, perceived risk needs to be kept low to encourage more consumers to shop online. To do so, an online retailer could provide a guarantee of transaction security, implement a favourable return and exchange policy, offer cash on delivery (COD) method to reduce the risk of undelivered products, display high-resolution product images online, also write down product specifications clearly and completely.

In addition, online purchase intention was found to be a significant antecedent of actual purchase. In this study, online purchase intention is represented by consumers' willingness to depend on the online retailer for the security of their personal and confidential credit card data. Therefore, online retailers need to assure consumers that they can secure this confidential information. This guarantee is communicated through a transaction security seal and privacy policy. Those features assure data security and in turn are expected to increase actual purchases. Another indicator of online purchase intention is the intention to shop online in the near future, which needs to be kept high by implementing a customer relationship management (CRM) approach and sending reminder emails or notifications to consumers about products they have seen during their previous visit. Email reminders are proven to increase conversion rates.

6.2. Limitations and future research

This study has some limitations and there are abundant opportunities for further research. First, the research results cannot be generalised and applied equally well to other industries because the unique characteristics of the industry could alter a set of factors that influence purchase behaviour. Second, with this study's descriptive nature, there was no manipulation or control of the antecedents of online purchase behaviour as it would be in experimental design; thus, conclusions on the relationship between constructs in this study require further and continuous research. As perceived risk is found to be an insignificant antecedent of online purchase intention and actual purchase, future research could analyse the moderating influence of consumer demographic and online shopping familiarity on the relationship between perceived risk and online purchase intention or actual purchase.

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