

Influence of Subjective Norms and Perceived Risk Toward Online Purchase Intentions on E-Commerce

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Abstract

This research aims to analyze online consumer behavior based on subjective norms and risk perceptions regarding online purchases which are mediated by attitude as an intervening variable in e-commerce applications for the Millennial generation. This research was conducted on the Millennial generation born between the years 1981 – 1995 in the Jakarta, Bogor, Bekasi and Tangerang Indonesia. This research design is oriented toward a logic approach that explains a causal relationship and a category of concepts because in this research hypothesis testing of the causal relationship of independent variables and dependent variables is used. Hypothesis are tested by Structural Equation Modelling (SEM) method. Data analysis uses *Structural Equation Modelling* (SEM) with a sample consisting of 397. The research results show that Subjective Norms does not directly have a positive effect to Online Purchase Intention nor to Attitude for Using E-Commerce Applications. Subjective Norms indirectly does not have a positive effect on Online Purchase Intention through Attitude in Using E-Commerce Applications. Perceived Risk directly has a negative effect on Online Purchase Intention. Perceived Risk does not directly have a negative effect on the Attitude of Using E-Commerce Applications. Perceived Risk Indirectly does not have a negative effect on Online Purchase Intention through Attitude in Using E-Commerce Applications. Attitude The use of E-Commerce Applications directly has a positive effect on Online Purchase Intention. his research showed that millennials belief that online purchasing intention is not influenced by friends, relatives or colleagues. They tend to shop online because they enjoy as long as the application is easy to use. They also realize that online shopping has some risks but they still shop online as long as the application is safe and has a good reputation. Keywords Subjective norms, Perceived risk, Online Purchase intention, Millennial generation

INTRODUCTION

As a result of information technology development, business growth is currently quite in significant progress. Business people are focusing more on digitalization technology in transactions. Business activities that were previously carried out offline in transactions, now they have begun to develop and move online through business company websites or market places, so the term e-commerce has emerged. E-commerce is the trading of goods and services on the internet. Many companies use e-commerce applications in order to increase services to consumers efficiently. Currently, many companies use e-commerce for transactions, so this condition will certainly be a challenge and opportunity for business

people. Business people will face changing consumer behavior patterns in order to maintain their competitive advantage (Koch et al., 2020).

Determining market segmentation is very important. Market segmentation can be used as demographic information in determining consumer purchasing habits or behavior by marketers. Currently generation Y or millennials, namely the generation of young people aged between 20 - 30 years, is a generation that has extraordinary purchasing power. (Kraljević & Filipović, 2017). Researchers and marketers are interested in studying their characteristics because they have a lot of influence on the older generation and are trendsetters in various industries. They are used to and proficient in using technology. In fact, computers are not just tools but are used as a place to hang out with friends virtually. Moreover, the millennial generation is also fluent and adept at using technology in sending and receiving messages such as on the internet so that decisions taken will be faster (Tapscott, 2009). This situation can be exploited by business people in promoting and selling their products, especially when they are shopping online.

One of the media that is widely used in online shopping is e-commerce applications. E-commerce is a platform for trading transactions between sellers and buyers on the internet which is currently widely used. E-commerce provides many benefits for consumers who is shopping online because application users can access and make transactions anytime and anywhere. However, based on a visit surveyor-commerce in Indonesia, visitor-ecommerce continues declining since the beginning of 2023 due to the Indonesian government revoked regulation of the implementation of Community Activity Restrictions (PKM) (Rizaty, 2023). This situation shows the challenges for e-business actors in maintaining their existence in very tight competition, so that e-business actors need to understand consumer behavior which can influence the decline in using the application. Researchers try to understand what factors can explain and predict how consumers can make purchases or transactions online (Pelaez et al., 2019).

Online Purchase Intention is the buyer's intention to engage in exchange relationships such as sharing information, maintaining business relationships and making business transactions on shopping sites (Zwass, 1998). Online Purchase Intention is based on the relationship between intention and actual behavior (Dachyar & Banjarnahor, 2017) so that Online Purchase Intention is a factor that can predict actual behavior in making purchasing decisions (DJ Kim et al., 2008). Online Purchase Intention can understand the extent to which consumers are willing to buy products through online stores (Pavlou, 2003) especially for the Millennial generation. Many researchers recognize and appreciate the importance of use Theory of Planned Behavior (Ajzen & Fishbein, 1977) in explaining online purchase intention (Agag & El-Masry, 2016). Attitude is the most important predictor of intention in accepting and/or using information technology (Moore, GC and Benbasat, 1995); (Karahanna et al., 1999) especially when it comes to online purchases. Madden et al., (1992) states that consumer attitude influences the intention to buy a product. Attitude plays an important role in decision making and as a predictor of behavioral intentions.

Another important factor of Theory of Planned Behavior which can influence consumer behavior in terms of intention to make online purchases is a subjective norms. Subjective Norm is the recognition of social pressure to display a specific behavior (Kreitner & Kinicki, 2001). Subjective Norms are motivation obtained from friends, family or colleagues to make purchases online (E. Kim et al., 2013). Research conducted (Nor & Pearson, 2008) states that subjective norms especially from friends, family and colleagues have a positive influence on online purchases. Previous studies showed that there was a relationship between Subjective Norms on online shopping intentions. Meanwhile, on the other hand subjective norms did not have a significant direct relationship to consumer behavior, where subjective norms create intention and have an impact on creating behavior (Ajzen, 1991). Research result of Armitage & Conner, (2001) states that subjective norms as a not strong predictor of intention. Lim et al., (2016) stated that subjective norms had no relationship to shopping behavior. This situation showed that there is a research gap between subjective norms towards online purchase intention.

The next factor that can influence consumer behavior in terms of intention to make online purchases is a risk. The use of technology cannot be separated from risk factors. The risk is an uncertainty regarding negative consequences (Kamalul Ariffin et al., 2018) included in online purchases (Chen, 2013). Baur R., (1960) propose perceived risk. Bauer in (Liao et al., 2021) believe that there will always be unpleasant consequences from a purchase so consumer behavior can be considered a burden of risk that can result unexpected negative consequences. *Perceived Risk* can be a barrier for online consumers who are considering whether to make an online purchase (DJ Kim et al., 2008). The perceived risk trust factor has a strong impact on the purchasing decisions of online shopping consumers (DJ Kim et al., 2008). Financial risk, time risk, delivery risk and privacy risk are important factors in forming perceived risk. However, the research results are different (Bhatti & Ur Rehman, 2020) which states that risk has no positive effect on online shopping behavior. Soto et al., (2015) stated that risk perception has a negative influence on online shopping

intentions. Based on research (Pelaez et al., 2019), perceived risk has no relationship to purchase intention in an e-commerce setting so further research needs to be done. This situation shows that there is a research gap between perceived risk towards online purchase intention. So that it needs to be confirmed and studied further.

Consumer attitude is an important thing in decision making. Consumers have a tendency to evaluate objects they like or dislike when shopping online. They will determine what factors can influence their intention to shop online. In this research, attitude is one of the determinants of a person's acceptance of technology and the extent to which a person has a positive or negative attitude towards evaluating behavior (Fishbein, M. and Ajzen, 1975) in online shopping so it needs to be confirmed and researched further. Many theories explain how this behavior can be formed and what variables can influence it. In this research, researcher adopted the Theory of Planned Behavior (TPB) to find out which factors most dominantly influence a person's behavior. Online business people need to identify factors that can influence their intention to shop online (Ling et al., 2010) especially the millennial generation so that they can expand market penetration and maintain their existence of advantages competition.

The objectives of this research is to identify what factors can influence the millennial generation intention to online purchase, especially in using e-commerce applications. It is firstly to find out the subjective norm factors influence either directly or indirectly on online purchase intentions through attitudes towards accepting or rejecting technology. Secondly it is to find out perceived risk factors influence either directly or indirectly on online purchase intentions through attitudes towards accepting or rejecting technology. The third is to identify attitudes influence towards accepting or rejecting technology effect to purchase intention.

THEORETICAL FRAMEWORK

Online purchase intention is the buyer's intention to engage in exchange relationships such as sharing information, maintaining business relationships and making business transactions on shopping sites (Zwass, 1998). Online purchase intention is based on the relationship between intention and actual behavior (Dachyar & Banjarnahor, 2017) so online purchase intention is a factor that can predict actual behavior in making purchasing decisions (D. J. Kim et al., 2008). Online purchase intention can be understood to what extent consumers are willing to buy products through online stores (Pavlou, 2003).

Subjective Norms towards Online Purchase Intention

Subjective Norms are a direct determining factor in behavioral intention in the Theory of Reasoned Action Model (TRA) theory (Ajzen & Fishbein, 1975). Subjective Norms are the second determinant of behavioral intention which is related to the social pressure felt to do or not do a behavior (Ajzen, 1991). Social power is part of subjective norms. Social power can be in the form of rewards or punishments that someone conveys to others, feelings of pleasure or experiences that are felt (Ajzen & Fishbein, 1975). A person has a tendency to understand that he will give advice to other people to behave due to increasing social pressure or vice versa (Ajzen, 2005). Study (E. Kim et al., 2013) uses subjective norms as a key construct of interest in proposing a relationship between normative beliefs and subjective norms which are characterized by subjective norms that influence consumers' intentions to read nutrition labels in a restaurant. This shows that subjective norms are the main element that forms beliefs so that they can influence product purchases. Colleagues such as colleagues or friends in groups on social media can influence online purchases (Osatuyi & Qin, 2018). Limayem et al., (2000) stated that Purchase intention mediates the relationship between subjective norms and behavior. Consumers or online users will show their behavior after getting referrals from friends, family or colleagues so they decide to make online purchases.

Subjective Norms towards Attitudes in Using E-Commerce Applications

Subjective Norms are a function of a person's normative beliefs regarding references that can influence an attitude. These normative beliefs are social pressures from either individuals or reference groups who approve or disapprove of someone's attitude (Ajzen, 1991); (Fishbein & Ajzen, 1980). Normative beliefs are also a concept of a person's behavior based on personal experience or in the form of information from friends or acquaintances (E. Kim et al., 2013). The Theory of Planned Behavior (TPB) applied to Thailand consumers shows that intention to shop online is most likely influenced by perceived behavioral control, subjective norms and a number of attitudes from the people around them (Laohapensang, 2009). Subjective Norms are based on a person's perception of what they should/may do or should not do and/or the punishment they receive as a result of that behavior (Peña-García et al., 2020). Iranmanesh et al., (2019) states that subjective norms have a significant relationship in choosing halal products. Subjective Norms are also a motivation obtained from friends, family or colleagues to make purchases online (E. Kim et al., 2013). This shows that subjective norms can motivate someone to behave.

The Influence of Subjective Norms on Online Purchase Intention through Attitude in Using E-Commerce Applications

Subjective Norms are a person's perception that it is important to think about what one should or should not do (Widyanto & Sitohang, 2021). Subjective Norms are a person's behavior that is influenced by social pressure (Ajzen, Icek, 1985). The higher the level of Subjective Norms, the higher the intention to buy halal certified food (Iranmanesh et al., 2019). The stronger the attitude a person's attitude, the stronger a person's intention will be (Widyanto & Sitohang, 2021). The higher consumers have confidence or believe that their peers support the online purchase, the stronger the Online Purchase Intention (Peña-García et al., 2020). Subjective Norms for e-commerce customers are formed from the social environment. When customers e-commerce, most people don't shop online and still shop offline, so Subjective Norms will be formed (subjective norms) of customers who intend not to use e-commerce or vice versa. (Bangun & Handra, 2021). More and more people are shopping online, the more you want or have the intention to make purchases online. Consumers believe that other people will do the same. The Theory of Planned Behavior (TPB) applied to Thai consumers shows that intention to shop online is most likely influenced by perceived behavioral (Laohapensang, 2009). This situation shows that someone has intentions to shop online because it is influenced by attitudes based on information or experiences experienced by friends, relatives, colleagues, family or people who use e-commerce applications.

Perceived Risk of Online Purchase Intention

Perceived Risk (perceived risk) is a form of perceived uncertainty regarding the possible negative consequences of using a product or service (Bauer, 1967); (Featherman & Pavlou, 2003). Research result (Hansen et al., 2018) shows that perceived risk has an important role as an antecedent in consumer decision making, and risk taking tends to have a direct effect on behavioral intention. There are only two factors that influence online shopping behavior, namely perceived risk and subjective norms on purchase intention (Bangun & Handra, 2021). Perceived risk plays a very important role in determining their evaluation and purchasing behavior (Ko et al., 2004). Consumers feel a higher level of risk when shopping online compared to shopping directly in stores (Kamalul Ariffin et al., 2018). Consumers are worried about not being able to physically inspect the products they buy, consumers only rely on limited information and image displays on computer or cellphone screens (Jarvenpaa et al., 1999). This situation shows that perceived risk is a critical factor that prevents them from shopping online (Khaled, 2013).

Perceived Risk on Attitudes in Using E-Commerce Applications

Perceived risk is the uncertainty that consumers will face when they cannot predict the consequences of their purchasing decisions. Perceived risk can cause someone to refuse or delay adopting technology (Chan & Lu, 2011). Bauer (1967) propose perceived risk. Bauer believes that there will always be unpleasant consequences of a purchase so consumer behavior can be considered a burden of risk that can result in unforeseen negative consequences (Liao et al., 2021). The obstacles faced by e-commerce users in adopting technology are the lack of security and privacy (Bhimani, 1996). Internet media has characteristics that can increase vulnerability and create bad perceived risks for consumers when shopping online (Khaled, 2013). Shopping online has more risks than offline so this can prevent consumers from adopting technology (D. J. Kim et al., 2008). Mitchell (2001) states that consumers are more likely to consider perceived risk rather than maximizing the perceived benefit value when deciding to buy. This situation shows that the attitude of application users is becoming more careful because they have higher concerns about security and privacy when shopping online.

The Influence of Perceived Risk on Online Purchase Intention through Attitude in Using E-Commerce Applications

Perceived risk is the most important inhibitor factor for online consumers to consider whether they will carry out Online Purchase Intention or not. Online consumers have beliefs about the uncertain negative potential of transactions/perceived risk (D. J. Kim et al., 2008). Research result (Kamalul Ariffin et al., 2018) shows that security risks have a major contributor for consumers using online applications which can hinder Online Purchase Intention. Perceived risk what users of online shopping applications feel depends on their shopping experience on the internet and on website data (Montoya-Weiss et al., 2003) so shopping online is still considered risky. H. Ko et al (2004) considers that most consumers shopping online has a greater risk compared to the value of the benefits or profits obtained, thus influencing their decisions. Consumers shopping online are more careful before deciding to buy a

product. Research result (Lăzăroi, 2020) states that there is a relationship between purchase intention, consumer attitude and behavior in adopting technology with trust and perceived risk (risk factors) on purchasing decisions. The perceived risk experienced by consumers shopping online has become a crucial problem because perceived risk has a direct effect on consumer attitudes and has an impact on online purchases (Ariff et al., 2014).

The Influence of Attitude in Using E-Commerce Applications on Online Purchase Intention

A person's attitude is the consistency and spontaneity of beliefs in memory that guide certain behavior (Ajzen et al., 2000) and forms of consistency including cognitive, affective, and conative (Ajzen, 1987). Attitude is a response to an object that is consistently favorable or unfavorable, tends to be studied (Ajzen & Fishbein, 1975). In this research, attitude is one of the determinants of a person's acceptance of technology and is defined as the extent to which a person makes a positive or negative evaluation of a behavior (Plouffe et al., 2001) in terms of carrying out purchase transactions on line (Fitzgerald, 2004).

If online seller services can be easily identified by online users/consumers, then online users/consumers will have a positive attitude towards online purchases (Elwalda et al., 2016). Several other studies show that *attitude* influences online ticket orders and product selection. As stated by Agag & El-Masry (2016) trust and attitude have a higher influence on intention to book a hotel online. Attitude in product selection mediates behavioral intention (I. Kim et al., 2021).

The above descriptions are shown in the following research framework.

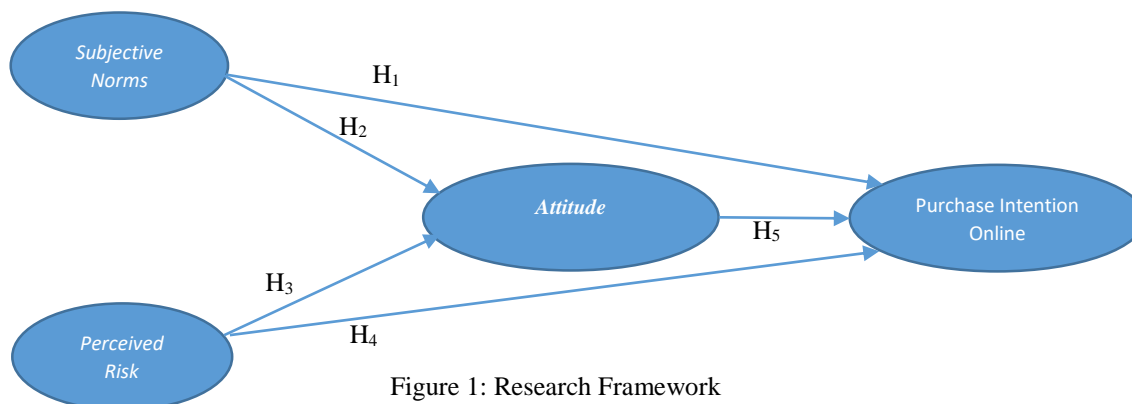


Figure 1: Research Framework

RESEARCH METHODS

This research design is oriented toward a logic approach that explains a causal relationship and a category of concepts. In fact this research use hypothesis testing of the causal relationship of independent variables and dependent variables (Sekaran & Roger Bougie, 2016). This research is a quantitative research by analyzing data based on samples from the population carried out randomly with a chance of error (significance level) Of 5% and a confidence level of 95%. The forms of research are descriptive survey with a decutive and quantitave approach. Hypoteses are tested by Structural Equation Modelling (SEM) method with AMOS.

This research measure validity between variable: including convergent validity and average variance extracted (AVE) with the expected AVE value > 0.5 (Ghozali, 2017: 141-143). Validity testing with AMOS is based on the loading factor value for each contract indicator. The condition used to asses validity in this research is that the loading factor value must be > 0.70. To test discriminant validity with reflexive indicators is by looking at the cross loading values variable with must be > 0.70 (Latan & Gozali, 2015:74). The condition used to assess construct reliability in this research is that composite reability values must be > 0.7 for confirmatory research and value of between 0.6-0.7 is still acceptable for exploratory research (Latan & Gozali, 2015:75).

DATA COLLECTION

Data collection uses two data sources, both primary and secondary data. Primary data was obtained directly in the form of observations, questionnaires or interviews. The questionnaires were distributed through google form during two month February until March 2023. The population in this study are Millennial consumers (students, private employees or ASN) who uses online purchasing services Tokopedia, Lazada and Shopee in the JABOTABEK area. The Millennial generation is referred to as generation Y or Net Generation who were born around 1981 – 1995 (Oblinger, D., & Oblinger, 2005), the generation that was born who already knows computers and is proficient with technology.

The research instrument used to measure each indicator uses a Likert scale ranging from 1 to 5 with the lowest number category meaning strongly disagree (1) to the highest number meaning strongly agree (5). The research instrument in the questionnaire is arranged into 2 sections. The first section contains 6 questions related to the respondent's profile (demographic data). The questions asked gender, age, status, profession, education and income. Parts 2 to 4 consist of questions on the four variables: subjective norms, perceived risk, attitude and online purchase intention with several questions.

RESULT AND DISCUSSION

The total sample in the study was 397 respondents and was dominated by the Millennial generation aged between 27 - 34 years and had been using e-commerce applications for more than 12 months in JABOTABEK regional Indonesia. The measurement model examined the relationship between constructs and indicators.

Numerical Result

Validity and Reliability Test of Subjective Norms Variables

Table 5.1. Validity and Reliability Test Results of Subjective Norms Constructs

Indicator	LF	CV/AVE	DV	CR
Sn1	0.287	0.687	0.829	0.941
Sn2	0.849			
Sn3	0.887			
Sn4	0.798			
Sn5	0.777			

The results of data processing on Subjective Norms are categorized as VALID because they have a Loading Factors (LF) value higher than 0.50. However, one of the five indicators was INVALID so it was discarded. By processing data on the four VALID indicators, the Convergent Validity (CV) of the Subjective Norms variable is categorized as Good because it has an Average Variances Extracted (AVE) greater than 0.50. Next, the discriminant validity (DV) of the Subjective Norms variable can be categorized as Good because the discriminant validity (DV) is greater than 0.70 and the correlation between exogenous constructs is less than 0.85. Finally, the Subjective Norms variable has GOOD Construct Reliability (CR) because the CR value is greater than 0.70.

Validity and Reliability Test Results of the Perceived Risk Construct

Table 5.2. Validity and Reliability Test Results of the Perceived Risk Construct

Indicator	LF	CV/AVE	DV	CR
Pr1	0.711	0.55	0.745	0.944
Pr2	0.702			
Pr3	0.715			
Pr4	0.740			
Pr5	0.775			
Pr6	0.464			
Pr7	0.652			
Pr8	0.806			
Pr9	0.841			
Pr10	0.376			
Pr11	0.179			

As a result of data processing on the eight Perceived Risk indicators, it is known that eight of the eleven Perceived Risk variable indicators are categorized as VALID because they have a Loading Factors (LF) value higher than 0.50. Next, the three INVALID indicators were discarded. The Convergent Validity (CV) of the Perceived Risk variable was categorized as GOOD because it had an Average Variances Extracted (AVE) greater than 0.50. Next, the Discriminant Validity (DV) of the Perceived Risk variable can be categorized as GOOD because the DV is greater than 0.70 and the correlation between exogenous constructs is less than 0.85. Finally, the Perceived Risk variable has GOOD construct reliability (CR) because the CR value is greater than 0.70.

Validity and Reliability Test of the Attitude Variable

Table 5.3 Validity and Reliability Test Results of the Attitude Construct

Indicator	LF	CV/AVE	DV	CR
At1	0.727	0.544	0.744	0.934
At2	0.458			
At3	0.788			
At4	0.596			
At5	0.653			
At6	0.739			
At7	0.830			
At8	0.801			

Seven indicators of the Attitude variable for using E-Commerce Applications are categorized as VALID because they have a Loading Factors (LF) value higher than 0.50. Next, one INVALID indicator (At2) is discarded. The Convergent Validity (CV) of the Attitude variable is categorized as GOOD because it has an Average Variances Extracted (AVE) greater than 0.50. Next, the Discriminant Validity (DV) of the Attitude variable can be categorized as GOOD because the DV is greater than 0.70 and the correlation between exogenous constructs is less than 0.85. Finally, the Attitude variable has GOOD construct reliability (CR) because the CR value is greater than 0.70.

Validity and Reliability Test of Online Purchase Intention Variables

Table 5.4 Validity and Reliability Test Results of the Online Purchase Intention Construct

Indicator	LF	CV/AVE	DV	CR
Pi1	0.796	0.536	0.732	0.931
Pi2	0.770			
Pi3	0.834			
Pi4	0.708			
Pi5	0.773			
Pi6	0.560			
Pi7	0.646			

All indicators of the Online Purchase Intention variable are categorized as VALID because they have a loading factors (LF) value higher than 0.50. The Convergent Validity (CV) of the Online Purchase Intention variable is categorized as GOOD because it has an Average Variances Extracted (AVE) greater than 0.50. Next, the Discriminant Validity (DV) of the Online Purchase Intention variable can be classified as GOOD because the DV is greater than 0.70 and the correlation between exogenous constructs is less than 0.85. Finally, the Online Purchase Intention variable has GOOD construct reliability (CR) because the CR value is greater than 0.70.

1.1. Hypothesis test

Table 5.2.1 Results of Direct Effect Hypothesis Testing

Hypothesis	Estimate	S.E	CR	P	Conclusion
Subjective Norm Online → Purchase Intention	-0.040	0.035	-1,154	0.249	Not supported
Subjective Norm → Attitude	0.001	0.036	0.016	0.987	Not supported
Perceived Risk Online → Purchase Intention	-0.062	0.031	-1,986	0.047	Supported
Perceived Risk → Attitude	-0.042	0.032	-1,299	0.194	Not supported
Attitude → Online Purchase Intention	0.806	0.088	9,190	0.001	Supported

Table 5.2.2 Results of Indirect Effect Hypothesis Testing

Relationships	DE*	IE**	Confidence Interval		P-value	Conclusion
			Low	High		
SN → AT → OPI	(0.001) (0.806)	0.001	-0.081	0.069	0.988	No mediation
PR → AT → OPI	(-0.042) (0.806)	-0.034	-0.124	0.030	0.230	No mediation

Based on the results of research conducted on 397 respondents, the characteristic of respondents can be identified as follows:

The results show that of the 397 millennial respondents who use e-commerce, the largest number of respondents, first 171 people who live in Tangerang (43.1%), second 113 people who live in Jakarta (28%), third 64 people who live in Bekasi (16%) and the least 49 people who live in Bogor. Among these respondents, the largest number of respondents who use e-commerce applications for online shopping were female with a number of 213 people (52,7%). The remaining 184 people were male. This phenomenon showed that female have more time to research for information about the products what they want to buy. They tend to buy intensively and have a greater tendency to shop. They are more hedonistic than male. The results show that the largest number of people shop online in sequences: 221 private employees (55.7%), 74 entrepreneurs (18.6%), 51 civil servants (12.8%). 26 students (6.5%) and 25 people do not have a job (6.3%).

Proposed Improvements

The results of this research indicate that subjective norms do not have a significant influence, either directly or indirectly through attitude to online purchasing intention. The results show that millennials are not influenced by

friends when shopping online, so for the next research, other variable as independent variable need to be added such as trust, price, influencers, brand image, service quality if they can increase their shopping intentions.

The research was conducted using a cross-sectional survey method, so that changes in consumers' online purchasing intentions time to time are not known. The sampling frame used in this research is purposive sampling, especially judgmental sampling which is subjective in nature so it is not fully representative and cannot be generalized to the entire population. The sample of respondents was only millennials, so for future research the sample of respondents needs to be expanded to reduce bias and make it representative.

Validation

The result of the Subjective Norm path coefficient to Online Purchase Intention (estimate) is -0.040. CR (t value) is -1.154, and P is 0.249. Because $CR < 1.96$ and $P > 0.05$, this means that Subjective Norm does not have a significant effect on Online Purchase Intention. The result of the Subjective Norms path coefficient on the attitude towards using e-Commerce applications (estimate) is 0.001. CR (t value) is 0.016, and P is 0.987. $CR < 1.96$ and $P > 0.05$, this means that Subjective Norms do not have a positive and significant effect on attitudes towards using e-Commerce applications. Thus the first hypothesis in this study is not supported.

Based on the results of research regarding respondents' responses, variable Subjective Norms are included in the rather high category with an average score of 3.20. This situation shows that online purchases by consumers are moderately influenced by other people, such as friends, family, and/or colleagues (Nor & Pearson, 2008). Millennials believe that they have the intention to shop online is not influenced by other people, such as friends, family, and/or colleagues. They have experience shopping online and often shop online so they don't need to ask other people for recommendations. Shopping online saves more time than shopping offline without having to go to a location, just search for products through online sites according to what you want and need without having to be told by friends, partners or colleagues. The result of subjective norms path coefficient to the attitude towards using e-commerce applications (estimate) is 0.001. CR (t value) is 0.016, and P is 0.987. Because $CR < 1.96$ and $P > 0.05$, this means that subjective norms do not have a positive and significant effect to attitudes towards using e-commerce applications. Thus the second hypothesis in this study is not supported.

Millennials feel capable and proficient in using the application, not because they are influenced by other people. Attitudes are formed not only from experience but also from social or environmental pressures such as friends, relatives, colleagues and motivation. Subjective Norms were found to have a direct effect on attitudes (Wang & Chou, 2021). However, this research shows that good attitudes (attitude) they want to use e-commerce applications and their intention to shop online is not influenced by social or environmental pressures. The results of this study confirm the fact that (1) consumers' online purchases are not influenced by other people, (2) they are not motivated to shop online due to influence from friends/colleagues, (3) they are not very confident that buying online is based on the opinion of a partner, and (4) they do not have much confidence in other people's opinions when shopping online. The four indicators do not describe someone's great trust with category level (average score 3.20). The results state that the fourth indicators does not have a positive and significant impact on the Attitude of using E-Commerce Applications. Millennials believe that their attitude towards using e-commerce applications is not influenced by friends or get advice from other people, but they really like shopping online because the application is easy to use and effective and efficient. Based on the results of the Sobel Test there is no influence of subjective norms to online purchase intention through attitude towards using e-commerce applications. This situation shows that the Attitude variable does not always mediate the relationship between the Subjective Norm variable and the Purchase Intention variable. The results of this research state that Attitude does not mediate the relationship between the Subjective Norm variable and the Purchase Intention variable. This may be due to the quality of the factors/indicators of Subjective Norms which are not optimal, especially reference groups, word of mouth (WOM) communication and/or opinion leaders (Al-Swidi et al., 2014; Naeem & Li, 2011).

There is an imaginary group that is not influenced by other people because there are no other people who can be used as a source of interpersonal promotion. They do not have the confidence and trust that shopping online is based on other people's opinions. They really like shopping online without having to consider other people's opinions. The research results of this study are in line with previous research (Letsoin & Riorini, 2020) which states that there is no mediating role of attitudes towards products between subjective norms and purchase intention for halal cosmetic products. As long as shopping online has benefits such as saving time, energy and costs, is easy to use and they feel comfortable and happy, they will continue shopping online. The result of the Perceived Risk path coefficient for Online Purchase Intention (estimate) is -0.062. CR (t value) is -1.986, and P is 0.047. Because $CR > 1.96$ and $P <$

0.05, this means that Perceived Risk has a negative and significant effect to Online Purchase Intention. The result of the Perceived Risk path coefficient on Attitude for Using e-Commerce Applications (estimate) is -0.042. CR (t value) is -1.299, and P is 0.194. CR < 1.96 and P > 0.05, this means that Perceived Risk does not have a significant effect on Attitudinal Use of e-Commerce Applications.

Based on the analysis of respondents' responses to the Perceived Risk variable, it is known that perception Millennials who use e-commerce applications throughout Jabotabek Perceived Risk in general it is quite high with an average score of 3.20. This means that t degree of uncertainty felt millennials regarding possible negative consequences of using e-commerce applications to purchase products or services (Bauer, 1967); (Featherman & Pavlou, 2003) relatively high. Perceived Risk can be a barrier for online consumers who are considering whether to make an online purchase (DJ Kim et al., 2008).

Millennials think that they will face risks products, finances, security, privacy, time, and psychology when they shop online. They believe that shopping online has higher risks than offline. To reduce negative perceptions of the attitude of using the application, they need to understand how to use the application and get various information such as having a good reputation, being trustworthy, having an affordable price and guaranteed security. The result of perceived risk path coefficient to attitude for using e-commerce applications (estimate) is -1.299, and P is 0.194. Because CR < 1.96 and P > 0.05, this means that perceived risk does not have a significant effect to attitude using of e-commerce application. Thus the fifth hypothesis in this study is not supported.

This result states that different from consumers offline, online consumers have a relationship with risks in online shopping such as the product received does not match what is displayed on the web, the product is not sent after payment, the quality of the product is different from what was promised. Therefore, if the perceived risk of online shopping is high then the attitude of online shopping will be negative or it could be said that the relationship between perceived risk and attitude of online shopping is negative. Furthermore, consumer purchasing intentions are greatly influenced by attitudes towards certain behaviors. For example, the greater the motivation, the stronger the intention to act (Hoque & Alam, 2018).

This research shows that even though millennials believe that online shopping has higher risks than offline shopping, they still have the attitude of using e-commerce applications as long as the application is easy and safe to use and they are proficient in using it so that it does not become a barrier. Based on the results of the Sobel Test, there is no influence of perceived risk to online purchase intention through attitude towards using e-commerce applications. The results of this research are in accordance with the findings of other previous studies. Among them is research (Hadi et al., 2022) who reported that perceived risk does not have a negative and significant influence on the purchase intention of consumers who shop online at Tokopedia which is mediated by the customer's attitude.

This shows that an increase or decrease in risk perception does not have a significant effect on purchase intention which is mediated by customer attitude. As long as the application is safe and easy to use, they will continue to shop online. The path coefficient for the attitude of using e-commerce applications toward online purchase intention (estimate) is 0.606. CR (t value) is 9.190 and P is 0.001. CR > 1.96 and P < 0.05, this means that attitude for using e-commerce application has a positive and significant effect to online purchase intention. This means that the consistency and spontaneity of beliefs in millennials' memory that guide certain behavior (Ajzen et al., 2000), in this case the use of e-commerce application is high. Attitude is very important in consumer intention to engage in behavior as proposed by TRA theory (Theory of Reasoned Action) (Ajzen & Fishbein, 1975). This result is confirmed empirically.

Discussion

The theory of Planned has many used in research and successful applications as a theoretical framework for predicting online purchasing intentions and behavior. According to the Theory of Planned, behavioral intention clients are influenced by attitudes, subjective norms, and perceived behavioral control. However, in this research it is not proven that online purchase intentions are influenced by subjective norms, especially for the Millennial generation. The result showed that the influence of other people, such as friends, family, and/or colleagues did not influence significantly online

purchase intention . They feel unsure that their intention to shop online is based on recommendations from friends, relatives or partners. The results of this research are same as several previous research results ((Bangun & Handra, 2021);(Fenech et al., 2019); (Letsoin & Riorini, 2020). On the other hand, Subjective Norms also did not have a positive and significant effect on Attitude. Millennials really like shopping online without having to consider other people's opinions. They believe that they like using an application because the application is easy to use, effective and efficient. Other reasons can be caused by a number of factors such as information, promotion and brand image. The results are same as with previous research (Letsoin & Riorini, 2020).

E-commerce application users have a high perception of uncertainty regarding the possible negative consequences of buying product online. Online purchasing has greater risks than offline. The result showed that perceived risk has a negative impact on online purchase intention. This situation can be caused by socio-economic status of each subject or other risks such as finance, time or defective product. The results of this research are also parallel with previous research findings (Gazali & Suyasa, 2020). On the other hand, Perceived Risk also does not significantly influence Attitude. This result was same as with a number of previous studies (Henry et al., 2017). This research shows that even though millennials believe that online shopping has higher risks than offline shopping, they still have the attitude of using e-commerce applications as long as the application is easy and safe to use. They are proficient in using it so that it does not become a barrier.

Furthermore, the results of this study showed that attitude variable has been proven to be one of the determinants of a person's acceptance of technology and the extent to which a person has a positive or negative attitude towards evaluating behavior. The results of this research are in line with those put forward by Fishbein, M. and Ajzen (1975) in the Theory of Planed Behavior (TPB).

CONCLUSION

Based on the research results, it can be concluded that Subjective Norms does not directly and indirectly have a positive effect to Online Purchase Intention nor to Attitude for Using E-Commerce Applications. E-commerce application managers and internet marketers specifically need to design e-commerce applications and mix promotion. It is designed not only for millennial but also for groups of people closest to them (such as family, friends/ colleagues) and/or hire important people (such as influencers, endorsers) who can influence them.

Perceived Risk directly has a negative effect on Online Purchase Intention. Perceived Risk does not directly and indirectly have a negative effect to the Attitude of Using E-Commerce Applications. E-commerce and internet marketers need to specifically reduce consumer risk perceptions by providing guarantee against the risk of damaged/inappropriate products), guarantee for security of delivery, and guarantee for the risk of lost money. Attitude in using E-Commerce Applications directly has a positive effect on Online Purchase Intention. This research showed that millennials belief that online purchasing intention is not influenced by friends, relatives or colleagues. They tend to shop online because they enjoy as long as the application is easy to use. They also realize that online shopping has some risks but they still shop online as long as the application is safe and has a good reputation.

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