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Factors Influencing College Students' Intention To Shop Online

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ABSTRACT: *There are many benefits of e-commerce, however not all internet users ever conduct online shopping. The main purpose of this study is to explore the factors that influence college students' intention to shop online. Theory of Planned Behavior (TPB) is often used as a basic model to examine how intention of buying online is formed. This study used TPB model which is integrated with Technological Acceptance Model (TAM). The model was analyzed using Partial Least Square (PLS) analysis. As for the data, as many as 150 respondents were analyzed. The respondents were college students who had never bought goods online. The results of the analysis suggest that only attitude proven to direct influence on Intention, while perceived ease of use and perceived usefulness were proven to influence Intention through attitude that acts as their mediator variable. Attitude gives the greatest influence to Intention.*
KEYWORDS *-E-commerce, Intention, PLS, TAM, TPB*

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I. INTRODUCTION

The growth of internet users in Indonesia is relatively fast, in the period of 2008-2017 the number of internet users in Indonesia increased almost six-fold. By 2017, about 55% of Indonesians used the internet (APJII, 2018). The Internet affects a variety of activities including trade. E-commerce is an activity of selling and buying products using the internet (Johansson, 2009). Some consumers use online stores to simply seek information as to increase their knowledge of goods they intend to buy but not to make purchases (Iprice 2018, APJII 2018). This is a problem for online sellers, because sellers surely expect customer visiting to online stores will eventually make a purchase. Only about 32% of internet users who use the internet buy goods online (APJII, 2018), meaning that the potential growth of e-commerce industry in Indonesia is still large.

As many as 79.8% of the majority of buyers in the national e-commerce is individual buyers that 46.9% of which is college students or students (Kemkominfo, 2016). The large percentage of this group is because they are one of the main users of the Internet; therefore, it has considerable potential consumption of the Internet (Hu et al., 2009). The data shows that college students are an important consumer group in the Indonesian e-commerce industry because this consumer group is heavily involved in e-commerce transactions regardless of their contribution to the value of transactions in this sector. It is no exaggeration to say that the growth of Indonesian e-commerce industry in the future will be greatly determined by young consumer groups such as college students.There are still 55% students or college students who have never bought goods online (Kemkominfo, 2013). Marketers need to understand what factors shaping their behavior to prevent them from buying online. Such understanding is useful in building the right steps to change their behavior so that they want to buy goods online.

This paper integrates the Theory of Planned Behavior (TPB) model with Technological Acceptance Model (TAM) to construct model of college students' intention to shop online. The data has been collected from 150 colleges students using a survey instrument. The model would then be analyzed using Structural Equation Modeling-Partial Least Square (SEM-PLS).

II. THEORY AND MODEL

1. Theory of Planned Behavior (TPB)

Theory of Planned Behavior (TPB) is often used as the basis of research models to examine the factors that shape behavioral intention, including in the context of research of intention in the use of e-commerce (George, 2004, Lin, 2007, Zhang and Zhao, 2010, Zhu, 2011, Sentosa and Mat, 2012, Turan, 2012, Velarde, 2012, Leonard and Jones, 2013, and Juniwati, 2014). TPB is the development of Theory of Reasoned Action (TRA) (Fishbein and Ajzen, 1975), in which TPB added perceived behavior control as the factor influencing intention. In TPB, the individual's performance toward behavior is influenced by intention toward the behavior itself, while the intention in performing a behavior is influenced by three main factors: attitude toward behavior, subjective norm to engage in the behavior, and perception about individual's success to perform such behavior (George, 2002).

2. Attitude, Subjective Norm, and Perceived Behavioral Control

A person's attitude towards a particular behavior is defined as the level of evaluation or judgment of a person about the likes or dislikes, good or bad, pleasant or unpleasant, favorable or unfavorable, and positive or negative of the behavior in question, while the subjective norm indicates how much social pressure experienced to perform or not to perform a behavior, while the perceived behavioral control is defined as a person's self-assessment of his ability to perform a particular behavior (Ajzen, 1991). According to TPB, attitude will effect positive on intention, thus the more positive attitude toward online shopping, the more intention to shop online. The following hypothesis is therefore proposed:

H1: Attitude toward online shopping positively affects behavioral intention to shop online (ATT→INT).

Subjective norm reflects perceived social pressure to shop or not to shop online. TPB treats this factor as an important determinant of intentions. Therefore, the following hypothesis is presented:

H2: Subjective norm positively affects behavioral intention to shop online (SN→INT).

In this study the perceived behavioral control reflects how much respondents' authority in taking a decision to shop or not to shop online. Higher perception of behavioural control over shopping online would positively affect intentions to shop online. Hence, the following hypothesis is proposed:

H3: Perceived behavioural control over online shopping positively affects behavioral intention to shop online (PCB→INT).

3. Technology Acceptance Model (TAM)

TAM was introduced by Davis (1989). This model was adapted from TRA designed specifically to model a person's acceptance of an information technology (Davis et al., 1989). TAM suggests that behavior is influenced first by intention, while intention is determined by attitude toward system usage and perceived usefulness. In TAM, Attitude toward system usage is determined by perceived usefulness and perceived ease of use. In TAM model, subjective norm is not considered as a factor that affects intention.

4. Perceived Usefulness and Perceived Ease of Use

Perceived usefulness is defined as the extent to which a person believes that using a particular system will enhance his job performance, while the perceived ease of use is defined as the extent to which a person believes that using a particular system will be free from effort (Davis et al., 1989). E-Commerce has various benefits, such as being able to spend anywhere and anytime, making shopping more effective and efficient. Perceived usefulness influences attitude positively. Therefore, the following hypothesis is proposed:

H4: Perceived usefulness positively affects attitude toward online shopping (PU→ATT).

In the context of e-commerce, perceived ease of use reflects individual believes that online shopping would be free of effort. Based on previous research, perceived ease of use has found direct effect on attitude toward online shopping (Lin, 2007, Turan, 2012, Juniwati, 2014, Velarde, 2012). Hence, the following hypothesis is proposed:

H5: Perceived ease of use positively affects attitude toward online shopping (PEU→ATT).

III. METHODS

Data collection technique was conducted by surveying with direct interviews or face to face with respondents. The selected respondents were the first students who were still active in college. Respondents in this study were 150 college students. Sampling was conducted with one of the non-probability selected sample, namely the purposive sample. The purposive sampling is a sampling determination technique with certain considerations. In this study the criteria for respondents were college students of internet users, knowing that buying goods can be done online, and had never purchased goods online.

There are six latent variables in this study. The latent variable is a variable that cannot be observed directly, thus to measure it can only be through indicators which are manifestations of the latent variable. Data analysis technique is Partial Least Square Analysis. Research indicators for each laten variable are shown on Table 1.

Table 1. Latent Variables and their Indicators

Indicators	Measurement Scale (1-10)
Intention (INT)	
1. How intend are you to buy goods online?	Not intend at all-Very intend
2. How likely are you to buy goods online within the next three months?	Impossible-Very likely
Attitude (ATT)	
1. How enthusiastic are you with online shopping?	Very unenthusiastic- Very enthusiastic
2. How supportive are you for online shopping activities?	Very not supportive- Very supportive
Subjective Norm (SN)	
1. People in your neighborhood are used to buying goods online	Strongly disagree- Strongly agree
2. People in your neighborhood think that people who have never shopped goods online are less sociable people	Strongly disagree- Strongly agree
3. People in your neighborhood think that people who have never shopped goods online are outdated.	Strongly disagree- Strongly agree

Table 1. Latent Variables and their Indicators

Indicators	Measurement Scale (1-10)
Perceived Control Behavior (PCB)	
1. The decision to try to buy goods online in the foreseeable future is entirely in my hands	Strongly disagree- Strongly agree
2. I have full authority or control in spending my money	Strongly disagree- Strongly agree
Perceived Usefulness (PU)	
1. Shopping online makes me possible to do goods purchasing activities whenever I want	Strongly disagree- Strongly agree
2. Shopping online makes me possible to do goods purchasing activities wherever I am	Strongly disagree- Strongly agree
3. Shopping online saves my time to shop because I do not have to spend time to go to the store and to queue	Strongly disagree- Strongly agree
4. Shopping online makes me possible to get items that are sold far from my location (for example: goods sold outside the city or even abroad)	Strongly disagree- Strongly agree
5. By buying items online, I will spend less than buying it conventionally / buying by going directly to the seller or shop	Strongly disagree- Strongly agree
6. Shopping online makes me easier to compare the price.	Strongly disagree- Strongly agree
Perceived Ease of Use (PEU)	
1. In your mind at this time how complicated or easy the process of buying goods online?	Very complicated-Very easy
2. Will it be difficult or easy to communicate with an online seller?	Very complicated-Very easy
3. How do you think it is complicated or easy to process the payment of buying online?	Very complicated-Very easy

IV. RESULT

Measure Reliability and Validity

There are six latent variables in the built PLS model, each latent variable has more than one indicators. Cronbach's Alpha is used to see the reliability of any latent variables based on the intercorrelation between indicators (Henseler et al, 2009). The coefficient of Cronbach's Alpha is in a susceptible 0-1, the closer it is to 1 the higher the reliability. Table 2 below shows the values of Croncbach's Alpha on each latent variable. If the Croncbach's Alpha coefficient is above 0.7, it indicates that the latent variable is reliable, while if the coefficient is below 0.6 then the latent variable is indicative of less reliable (Henseler et al, 2009). There are three latent variables that have Cronbach's Alpha coefficient below 0.6 ie, Attitude (ATT), Perceived Behavioral Control (PCB), and Perceived Ease of Use (PEU). Cronchbach's Alpha tends to produce values that are too low to suspect internal consistency (Henseler et al, 2009), therefore it is necessary to use Composite Reliability measurements. The value of Composite Reliability can be interpreted as Cronbach's Alpha value, values above 0.7 indicate that the latent variables are reliable. Table 2 shows that all latent variables have a value of Composite Reliability above 0.7 which means that all latent variables in this study are reliably identified.

Convergent validity and discriminant validity are used to measure validity. The relationship between the indicators and the latent variables in this study is entirely reflective, therefore the average variance extraction (AVE) can be used as the criterion of convergent validity. The AVE values in each latent variable are shown in Table 2. AVE values in almost all latent variables are above 0.5. Latent variables with AVE value above 0.5 means that the latent variables can, on average, account for more than half of the indicator's variance. According to Fornell and Larcker (1981), AVE values below 0.5 are still acceptable and the criteria for convergent validity can be considered fulfilled as long as the value of the composite reliability is above 0.7.

Table 2. Number of Indicator, Composite Reliability, Cronbach's Alpha, and AVE

Latent Variable	Number of Indicator	Composite Reliability	Cronbach's Alpha	AVE
ATT	2	0.73	0.29	0.58
SN	2	0.78	0.64	0.54
PCB	3	0.74	0.57	0.61
PU	2	0.89	0.84	0.57
PEU	6	0.77	0.54	0.52
INT	3	0.81	0.60	0.69

There are two ways to measure discriminant validity; by using Fornell-Larcker criterion and by using cross loadings. The Fornell-Larcker criterion indicates that a latent variable should share more varieties of indicators than other latent variables, in other words the value of AVE in each latent variable must be greater than that of the latent variables with other latent variables. The comparison of the AVE values of each variable with the quadratic correlation value of the variables with other variables indicates that the discriminant validity in the measurement model is considered fulfilled with the Fornell-Larcker criterion. The measurement of discriminant validity using cross loadings is also fulfilled, all factor loading values in each latent variable are

higher than their cross loadings values. Based on these results it can be concluded that the measurement model has fulfilled the criteria of reliability and validity.

All PLS algorithms were processed using SmartPLS 2.0.M3 software support. Iteration was done 300 times using Path Weighting Scheme. Figure 1 shows the path model diagram. How strong the structural model was able to explain the variance of each endogenous variable was seen based on the value of R^2.Figure 1 shows the value of R^2 from each endogenous latent variable in this study. Based on the value of R^2 information can be obtained that the model built can explain the variance of Attitudes (ATT) as much as 22% and Intentions (INT) 42%.

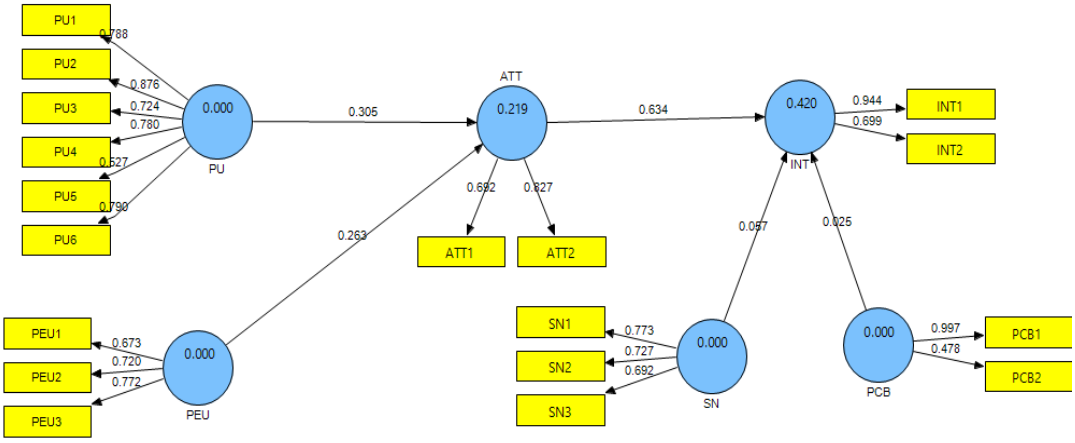

Figure 1. SmartPLS Output-Path analysis

The coefficients in each path analysis along with the results of the significance test are summarized in Table 3. There were three of the five relationships which were hypothesized significant. The result of PLS analysis is also possible to see the total effects of a latent variable against other latent variables. Total effects were obtained from the sum of direct effects and indirect effects. The indirect effect is the effect given by a latent variable to other latent variables through mediation variables.

Table 3. The results of significance test of path coefficient

Hyphotesis	Path coefficien	t-Statistics
H1: ATT→INT	0.634	12.43*
H2: SN→INT	0.057	0.76
H3: PCB→INT	0.025	0.24
H4: PU→ATT	0.305	4.15*
H5: PEU→ATT	0.263	4.08*

*)Significant at α=1%

V. DISCUSSION

Based on the results of the analysis, the model built in this study was able to explain 42% of the variance of intention in shopping online. Attitudes toward online shopping activities proved to have a significant influence on the intention of online shopping positively, in other words H1 was accepted. In this study, attitude was defined as the level of enthusiasm and the support of respondents for online shopping activities. The more positive college student attitudes towards online shopping activities, the greater their intention to shop online. These findings are consistent with the TPB developed by Ajzen (1991), TAM developed by Davis (1989), and several previous studies (Taylor and Todd, 1995, Lin, 2007, Sentosa and Matt 2012, Turan 2012, and Zhu 2011).

Rogers (1983) stated that Perceived Usefulness or Competitive Advantages of an innovation is one of the criteria that determines whether the innovation will be adopted or not. Referring to the Technological Acceptance Model (TAM), the Perceived Usefulness is also an important component that influences attitudes towards adopting a technology (Davis et al, 1989). One of the hypotheses in this study, H4, stated that college students' perceived usefulness of online shopping affect attitudes towards online shopping activities. The results of hypotheses testing suggest that college students' perceived usefulness proved to have a significantly positive effect on attitudes, in other words H4 was accepted (Table 3). This means that all the benefits offered when buying goods online play an important role in shaping the positive attitude of consumers towards online goods shopping activities, especially for consumers who prioritize convenience and practicality in shopping. The benefits of online shopping include making shopping activities possible anytime and anywhere as long as they are connected to the internet, making it easier to compare the prices of goods, and allowing consumers to save

time and costs. The Perceived Usefulness of online shopping has also proved to indirectly influence the intention of online shopping through attitudes as a mediating variable. The more online shopping is perceived useful by college students, the higher their intention in online shopping.

How much or less the effort that must be spent to use a technology also influences the individual's attitude towards the use of the technology. Rogers (1983) stated that Complexity or Perceived ease of use is one of the criteria that determines whether a technology will be adopted. Online shopping is a shopping activity that involves technology in it; therefore it is important to see the role of Perceived Ease of Use online shopping on the establishment of attitudes towards online shopping activities. Referring to the TAM developed by Davis (1989), one of the hypotheses tested in this study was, H5, Perceived Ease of Use of online shopping has a positive effect on attitude towards online shopping. The results of testing the hypothesis H5 as listed in Table 3 shows that the Perceived Ease of Use of online shopping has proven to have a significant effect on attitudes towards online shopping activities, in other words H5 was accepted. The simpler the online shopping system or process, the more positive the college student's attitude towards online shopping activities. College students' perceived of ease of use of online shopping are also proven to influence their intention in shopping online indirectly but through attitudes towards online shopping activities as a mediating variable.

Based on the results of this study, subjective norms and perceived behavioral control were not proven to significantly affect the intention in shopping online, or in other words H2 and H3 were rejected. Possible reasons why Subjective Norms in this study were not proven to have a significant influence on the intention of online shopping is because the entire respondents in this study were college students who typically tend to have strong principles so they are likely not to care about the pressures in their social environment.

VI. CONCLUSION

Attitudes towards online shopping activities have proven to play an important role in shaping college students' intention in shopping online. The more positive their attitude towards online shopping activities, the higher their intention in shopping online. College students' perceived of usefulness or benefits of online shopping, and perceived ease of use of shopping online proved to have influenced the intention to shop online indirectly with the attitude towards online shopping activities as a mediating variable.

Online business activists need to promote the various benefits of online shopping to groups of college students, besides the system and online shopping process need to be made as simple as possible so that college students' positive attitudes towards online shopping activities are increasingly formed and will ultimately increase their intention in online shopping. The high intention in online shopping activities will increase the chances of college students who have never shopped online to try online shopping.

REFERENCES

[1]. Ajzen I. (1991). Theory of planned behaviour. Organizational Behaviour and Human Decision Processes. 50: 179-211.
[2]. Association of Indonesian Internet Service Provider [Asosiasi Penyelenggara Jasa Internet Indonesia]. 2018. Penetration and behavior Indonesian internet user 2017 [Penetrasi dan perilaku pengguna internet Indonesia 2017] [internet]. [Downloaded in 2018 April 7].Available from https://www.apjii.or.id/content/read/39/342/Hasil-Survei-Penetrasi-dan-Perilaku-Pengguna-Internet-Indonesia-2017
[3]. Davis FD, Bagozzi RP, Warshaw PR. (1989). User acceptance of computer technology: Comparison of two theoritical models. Management Science. 35(8): 982-1003.
[4]. Fishbein M, Ajzen I. (1975). Belief, attitude, intention, and behavior: An introduction to theory and research. Phillippines: Addison-Wesley.
[5]. Fornell C, Larcker DF. (1981). Evaluating structural equation models with unobservable variables and measurement error. Journal of Marketing Research. 18: 39-50.
[6]. George JF. (2002). Influences on the intent to make internet purchases. Internet Research. 12(2): 165-180.
[7]. George JF. (2004). The theory of planned behavior and internet purchasing. Internet Research. 14(3): 198-212.
[8]. Hu Y, Sun X, Zhang J, Zhang X, Luo F, Huan L. (2009). A university student behavioral intention model of online shopping based on TAM. International Conference on Information Management, Innovation Management and Industrial Engineering. 625-628.
[9]. Iprice. (2018). Time spent by Indonesian consumers when visiting online stores [Waktu yang dihabiskan konsumen Indonesia saat mengunjungi toko online] [internet]. [Accessed in 2018 April 9]. Available from https://iprice.co.id/trend/insights/riset-dan-data-waktu-yang-dihabiskan-konsumen-indonesia-saat-mengunjungi-toko-online/
[10]. Johansson JK. (2009). Global marketing: Foreign entry, local marketing, and, global management. New York: McGraw-Hill/Irwin.
[11]. Juniwati. (2014). Influence of perceived usefulness, ease of use, risk on attitude and intention to shop online. European Journal of Business Management. 6(27): 218-228.
[12]. Kemkominfo. (2013). Portrait of online shopping in Indonesia case of Jabodetabek, Bandung, and Jogjakarta [Potret belanja online di Indonesia kasus Jabodetabek, Bandung, dan Jogya] [internet]. [Downloaded in 2017 September 13]. Available from https://www.slideshare.net/nurzakiarachma/potret-belanja-online-di-indonesia2
[13]. Kemkominfo. (2016). Study of digital economy in Indonesia as the main support to form future digital industry [Study ekonomi digital di Indonesia sebagai pendorong utama pembentukan industri digital masa depan] [internet]. [Downloaded in 2017 Mei 25]. Available from https://balitbangsdm.kominfo.go.id/?mod=publikasi&a=dl&page_id=222&cid=29&download_id=149
[14]. Leonard. (2012). Attitude influencers in C2C e-commerce: Buying and selling. The Journal of Computer Information Systems. 52(3): 11-17.
[15]. Lin HF. (2007). Predicting consumer intentions to shop online: An empirical test of competing theories. Electronic Commerce Research and Applications. 6: 433-442.
[16]. Rogers EM. (1983). Diffusion of innovasion 3th edition. New York: Free Press.

[17]. Sentosa I, Mat NKN. (2012). Examining theory of planned behavior (TPB) and technology acceptance model (TAM) in internet purchasing using structural equation modelling. Journal of Arts, Science & Commerce. 3(2): 62-77.
[18]. Taylor S, Todd PA. (1995). Understanding information technology usage: A test of competing models. Information System Research. 6(2): 144-176.
[19]. Turan AH. (2012). Internet shopping behavior of Turkish customers: Comparison of two competing models. Journal of Theoretical and Applied Electronic Commerce Research. 7(1): 77-93.
[20]. Velarde VDV. (2012). Determinants of online purchasing behavior: an empirical investigation using an extension of the theory of planned behavior [thesis]. Aarhus (DK): Aarhus University.
[21]. Zhang Y, Zhao Z. (2010). Study on college students' online shopping by using TAM. The Conference on Web Based Business Management. 978-1-935068-18-1: 648-651.
[22]. Zhu DS, Lee ZC, O'Neal GS. (2011). Mr. Risk! please trust me: Trust antecedents that increase online consumer purchase intention. Journal of Internet Banking and Commerce. 16(3): 1-23.

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