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Adoption of SMEs online shopper with **Unified Theory of Acceptance and Uses Technology 2 (UTAUT 2) Approach Model**

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ABSTRACT

The purpose of this study is to analyze the level of e-commerce adoption by consumers of Small Medium Enterprise in Banten - Indonesia with UTAUT 2 theory approach. By using PLS-SEM, this study involves 100 SMEs consumers as respondents who have been shopping SMEs products and who live in Banten. The finding of this study is that behavioral intention of SMEs consumer using internet is 43.9% and use behavioral of them is 24.2%. The results also show that gender does not have significant factors on internet adoption. The managerial/practical implications of the result are; training to increase knowledge and mastery of information technology is very urgent to be done, all stakeholders should promote SMEs products in online shop more aggressively and develop networking. The originality of this paper is that this study is done in Banten with very limited consumers of SMEs online products.

Keywords: SME, UTAUT2, PLS-SEM, Online Shopping

INTRODUCTION

Online buying and selling activity has become a very popular trend and has become a lifestyle in Indonesia. It is proven by the increase in online transaction which reached Rp. 45.50 trillion in 2015 to Rp 75 trillion in 2016 (Martowardojo, 2018). This is due to the lower cost of internet access and the cheaper price of devices. Ministry of Communications and Information (KEMKOMINFO) states that three main activities of Indonesian people when accessing the internet is to open social networking, make transactions and study (Basuki, 2015).

Small and Medium Enterprises (SMEs) in Indonesia are regulated in Law No. 20 of 2008. The law describes SME criteria based on the amount of net worth excluding house and land that is from Rp. 50 million to Rp. 10 billion and based on net sales for a year of Rp. 300 million to Rp. 50 billion. SMEs currently play an important role for Indonesia economy. In 2014 SMEs contribute to Indonesian economy in the form of job openings of 97% and contribute to GDP as much as 59% (Deny, 2014). Unfortunately, they still cannot maximize their sales by using internet. IBM Research shows that by 2013 there are 55.2 million SMEs in Indonesia, but only 75 thousand SMEs have utilized the internet for their business activities (Wiguna, 2015). Banten, one of provinces in Indonesia has many potentials from various sectors of SMEs that can be maximized by using the internet. Utilization must be tailored to the type of SMEs products and business models. This can cover various types of businesses, such as fashion, culinary and tourism products. The Internet can be used from product introduction activities, sales promotion to payment process which much more effective and efficient along with the increasing interest of Indonesian people to

use the internet as a tool to shop. Large companies with sufficient human and financial capital can create an ecommerce site tailored to their various needs such as integration with warehouse systems, integration with financial systems and more. But it is a matters for SMEs which have limited capital.

Nowadays, various types of ecommerce sites that provide sales systems has emerged and ready to use for SMEs in Indonesia. This e-marketplace has ability for individuals or SMEs to open an online store and start selling electronically by Customer-to-Customer (C2C) system. With the presence of e-marketplace, SMEs can develop and sell their product into electronic commerce (ecommerce). To maximize the sales, they should know exactly who will buy and how buyers adapt to ecommerce process. This information can be one of the key successes that can be utilized to maximize ecommerce strategy.

UTAUT 2 theory gives an idea how consumers adapt to a technology. UTAUT 2 was developed from UTAUT which initially assessed employee behavior in adapting to newly used technology. With a focus on technology adoption by consumers, UTAUT 2 added three new predictor variables, namely price value, hedonic motivation and habit (Venkatesh, et al., 2012: 59). Through the seven predictor variables in UTAUT 2, Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Condition, Hedonic Motivation, Price Value and Habit are believed to give an idea how SME customers are interested in using (Behavioral intention) internet to shop online and cause the habits (Use Behavior) of using internet, especially on SMEs consumers in Banten.

This study aims are to answer the question of how SME consumers in Banten are interested in using internet (Behavioral Intention) and cause the habit of using internet (Use Behavior) for shopping which assessed with predictor variable in UTAUT 2. This is an important things for SMEs to prepare a great strategy in using internet so that they can be more effective and have a higher competitiveness in digital competition.

Inability to master internet technology is a hindrance to SMEs development in digital era today. This study examines technology adoption of SME consumers in Banten by using UTAUT 2 variables that can show how much use of internet technology adoption at this time. Figure 1 illustrates the relationships that occur within each variable.

LITERATURE REVIEW

UTAUT 2 is a theory based on eight previous technology acceptance theories, namely TAM, TRA, MM, TPB, C-TAM-TPB, IDT, SCT and MPCU. UTAUT is used to predict the extent to which an individual can receive and use a technology in his or her life. The objectives of UTAUT 2 model are (1) identify three important constructs of acceptance and usage for both public and consumer, (2) alter some of existing relationships in UTAUT model and (3) introduce new relationships (Venkatesh et. al. 2012).

This study test hypothesis about technology adoption to SMEs consumer in Banten by using Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Condition hedonic motivation, price value, and habit in UTAUT 2 so it can show about adoption of internet technology.

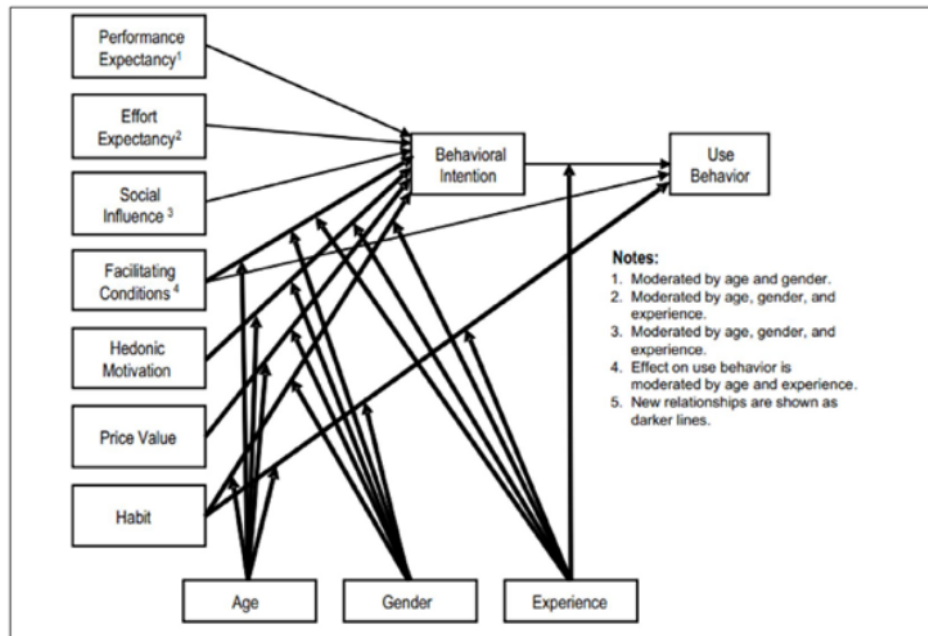


Figure 1. UTAUT 2 Model
 Source: Venkatesh. et.al. (2012)

Performance Expectancy

Performance expectancy explains consumer confidence in using the internet which provides many benefits and helps consumers in doing their work, especially on online shopping activities. Previous studies (Evlandari, 2011; Venkatesh .dkk. 2012; Alwahaishi and Snasel, 2013; Harsono and Suryana, 2014) show that performance expectancy is a strong variable affecting behavioral intention. Thus, hypothesis in this study is;

H1: Performance expectancy has a significant influence on behavioral intention.

Effort Expectancy

In this study, effort expectancy explains consumers do not find significant difficulties in operating Internet technology in online shopping. In previous researches (Evlandari, 2011; Gatautis and Medziausiene, 2014; Harsono and Suryana, 2014) prove that effort expectancy has an influence on behavioral intention. Thus, hypothesis in this study is;

H2: Effort expectancy has a significant effect on behavioral intention.

Social Influence

Social influence include social factors from the closest people of consumers that influence consumers using Internet to shop online. Previous researches (Gatautis and Medziausiene, 2014, Harsono and Suryana, 2014) explain that social influence has an influence on behavioral intention. Thus, hypothesis in this study is;

H3: Social influence has a significant influence on behavioral intention.

Facilitating Condition

It describes various things that can facilitate internet usage such as internet connection, supporting tools or gadgets, knowledge and skills and other things needed by consumers in shopping online. Previous studies (Alwahaishi and Snasel, 2013, Hasrono and Suryana, 2014) show that facilitating condition has an influence on behavioral intention, has an effect on behavioral intention and has a direct influence on use behavior. Thus, hypotheses in this study are;

H4a: Facilitating condition has a significant influence on behavioral intention. H4b: Facilitating condition has a significant influence on use behavior.

Hedonic Motivation

Hedonic motivation means the use of internet technology can provide pleasure or entertainment for consumers in online shopping through interaction or processes that occur in online shopping sites. Previous research (Hasrono and Suryana, 2014) states that hedonic motivation has an influence on behavioral intention. Thus, hypothesis in this study is;

H5: Hedonic motivation has a significant effect on behavioral intention.

Price Value

Price value captures conformity of incurred costs with consumer benefits in using internet technology to shop online. Previous researches (Escobar-Rodríguez and Carvajal-Trujillo, 2013; Harsono and Suryana, 2014) explain that price value has an effect on behavioral intention. Thus, hypothesis in this study is;

H6: Price value has a significant effect on behavioral intention.

Habit

In this study, it is shown to know the habits of consumers in using internet to shop online in everyday life. Previous studies (Escobar-Rodríguez and Carvajal-Trujillo, 2013, Harsono and Suryana, 2014) explain that habit has an influence on behavioral intention and has a direct influence on use behavior. Thus, hypotheses in this study are;

H7a: Habit has a significant influence on behavioral intention. H7b: Habit has a significant influence on use behavior.

Behavioral Intention and Use Behavior

In this study, behavioral intention is used to describe how much consumers desire to use internet technology to shop, while use behavior is used to explain intensity of consumers using Internet technology for everyday shopping. Previous researches (Escobar-Rodríguez and Carvajal-Trujillo, 2013; Harsono and Suryana, 2014) describe a direct link between

behavioral intention and use behavior. Thus, hypothesis in this study is;

H8: Behavioral intention has a significant positive effect on use behavior.

METHOD

This study uses Partial Least Square Structural Equation Model (PLS-SEM) method. The use of SEM is due to this study more focused on exploratory research (Hair, et al., 2014). In addition, based on type of data, framework, algorithm used, and evaluation model, this study is more appropriate using PLS-SEM (Hair et al, 2014). In the PLS-SEM method, it is stated that rule of minimum sampling is based on 10 times the number of formative indicators or 10 times the number of lines linking each latent variable in the study (Hair, et al 2014). Based on the research framework adopted from UTAUT 2 theory as shown in Figure 1, there are 10 lines connecting each latent variable. Therefore the minimum sample amount that must be used in this research is 100 samples. The sample in this study amounted to 100 respondents who are domiciled in Banten area. Data collection based on SME condition in e-marketplace and the studied respondents using non-probability sampling method which is accidental sampling. Data is collected for one month from 1 to 31 August 2017.

Data were collected by using questionnaires that have passed reliability and validity test. Collecting Data by distributing questionnaires digitally through instant message as well as in digital forum. Validity and reliability tests were performed on 32 male and female respondents with 19-22 year old students. The questionnaires used in the study were adopted from previous researches (Venkatesh et al. 2012; Escobar-Rodríguez and Carvajal-Trujillo, 2013; Harsono and Suryana, 2014). There are 23 questions with four likert scales (1 = strongly disagree) to (4 = strongly agree) to assess use behavior (1) and behavior intention (4) through seven predictor variables: performance expectancy (3) effort expectancy (3), social influence (3), facilitating condition (3), hedonic motivation (3), price value (2), and habit (1). Figure 2 describes research framework, relationship of each variable and research hypothesis.

To explain relationship within each variable, this research uses data analysis with Partial Least Square Structural Equation Modeling (PLS-SEM) through SmartPLS 2.0 M3 software. PLS method is an analytical method that has many ease of processing because it is not based on many assumptions. Besides can be used to confirm a theory, PLS can also be used to explain the presence or absence of relationships among latent variables (Ghozali, 2011).

There are three categories of estimation used in the PLS analysis, namely; (1) Weight estimate used to create latent variable scores; (2) Path estimate that connects latent variables and between latent variables and indicator blocks (loading); and (3) Relating to means and location of parameters (regression constant values) for indicators and latent variables.

To obtain these three estimates, PLS uses a three-stage iteration process and each iteration generates an estimate. The first stage produces the weight estimate, the second stage generates estimates for the outer model (measurement model) and inner model (structural model), and the third stage produces means and location (constants) (Ghozali, 2011).

Based on variables in this study that is reflexive, factor that gives rise to something when observed, the evaluation of outer model (measurement model in SEM-PLS) with reflective variable is

indicator of reliability (outer loading) for each indicator, internal consistency (composite reliability) for block indicator, convergent validity (AVE) and discriminant validity (Hair, et.al. 2014). Value of reliability indicator must be above 0.708, acceptable internal consistency should be between 0.60 to 0.95, convergent validity (AVE) value must be above 0.50, and discriminant validity assessed from the outer loading value of an indicator must be higher than other indicators. If the value of indicator reliability below of 0.708 should be considered deleted by looking at composite reliability and AVE values, if after deletion increases value of composite reliability (CR) and AVE then the indicator should be removed, and vice versa. In the SmartPLS software, this step uses PLS Algorithm function.

Reliability indicator value is taken from root outer loading value, calculation using MS Excel software with SQRT formula. Evaluation performed with PLS Algorithm function on SmartPLS indicated PE3 indicator for Performance Expectancy and FC3 variable for Facilitating Condition has outer loading value below 0.708 ie 0.5587 for PE3 and 0.5150 for FC3. Once deleted, recalculated with the PLS Algorithm CR and AVE values increase, then PE3 and FC3 indicators should be removed. In Figure 3 shows the value of outer loading on each latent variable.

Inner model (structural model in SEM-PLS) is evaluated by looking at percentage of variance described by looking at value of R2 for latent dependent construct and also looking at magnitude of its structural path coefficient (Ghozali, 2011). Framework of this study can be seen in Figure 2 below:

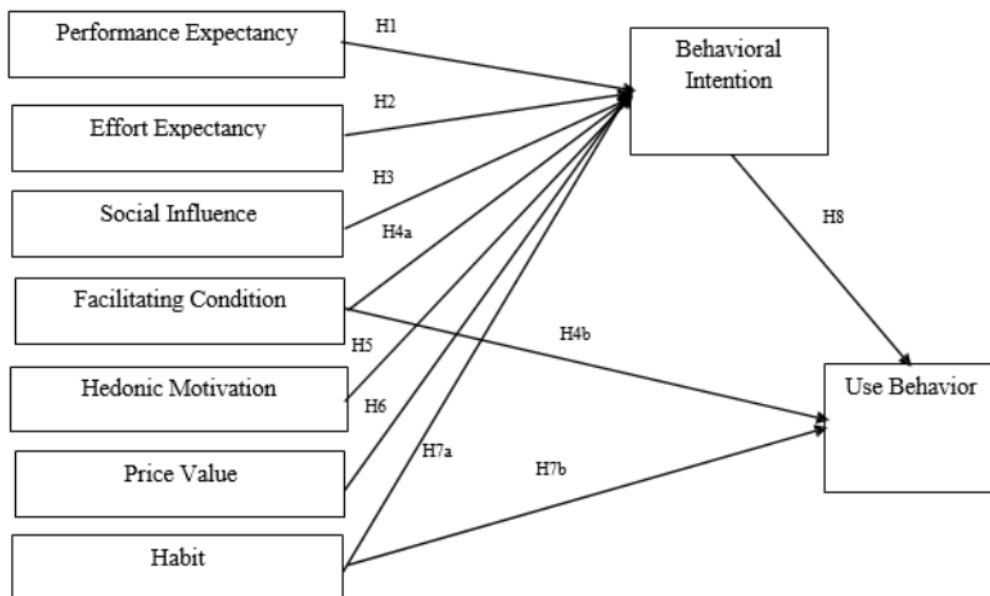


Figure 2. Research Framework

RESULTS AND DISCUSSION

Figure 3 shows the convergent validity (AVE) using the SmartPLS software function. The number of cases (cases) used as many as 100 cases. The value of convergent validity (AVE) should be

above 0.50, (Hair et al, 2014)

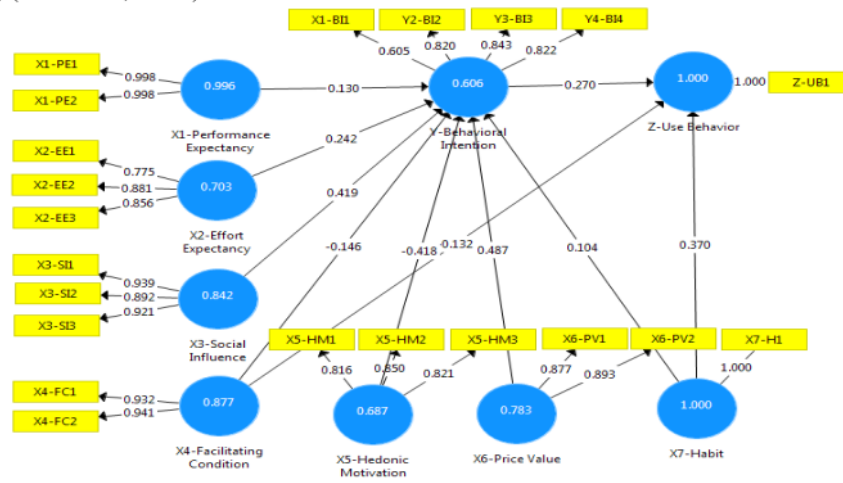


Figure 3. Convergent Validity (AVE) value

Figure 4 shows the value Internal consistency (composite reliability) that can be accepted must be between 0.60 and 0.95, (Hair et al, 2014)

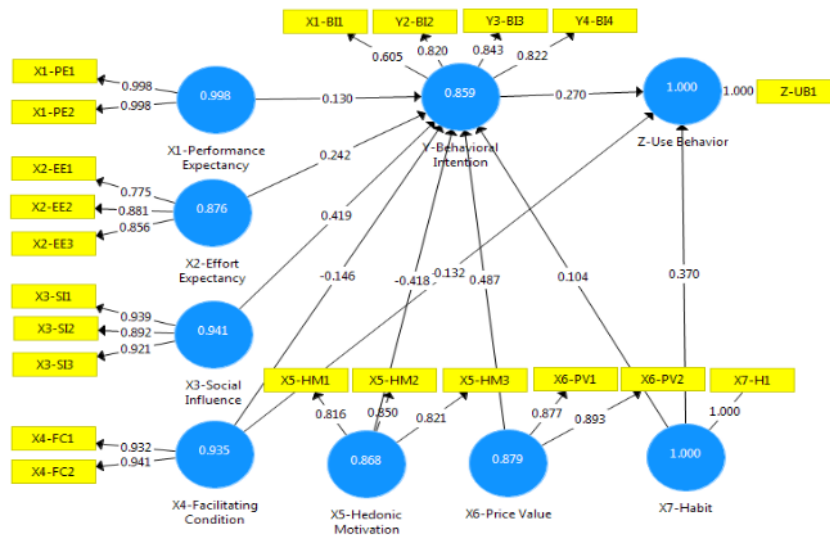


Figure 4. Composite Reliability value

Based on results, the value of reliability coefficient of Cronbach Alpha is 0.850. These results indicate that instrument reliability values are greater than 0, 700 (0.850 > 0.700), it can be concluded that all instrument are reliable, (Hair et al, 2014).

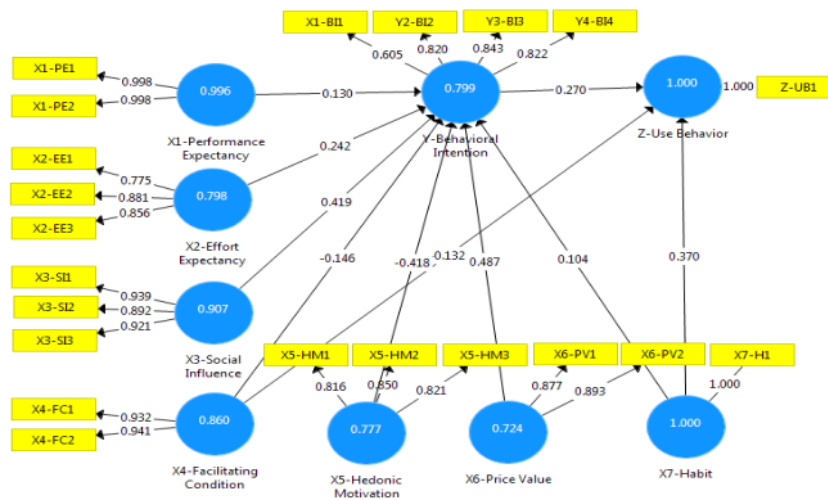


Figure 5. Reliability Coefficient of Cronbach Alpha value

As shown in figure 6, value of R^2 on behavioral intention variable means that all exogenous variables influence endogen behavior variable equal to 0.439 or 43.9% and rest influenced by other factor which not examined. Value of R^2 on use behavior variable means that the exogenous variable facilitating condition and habit and endogen behavior intention variable influence endogen use behavior variable of 0.242 or 24.2% and rest is influenced by other factors not examined. In the assessment criteria using PLS, the R^2 yield of 0.67 indicates that the 'good' model, 0.33 indicates 'moderate' and of 0.19 indicates 'weak' (Ghozali, 2011). This research yields R^2 value 0.439 for behavioral intention and 0.242 for use behavior which show that model in this research is moderate.

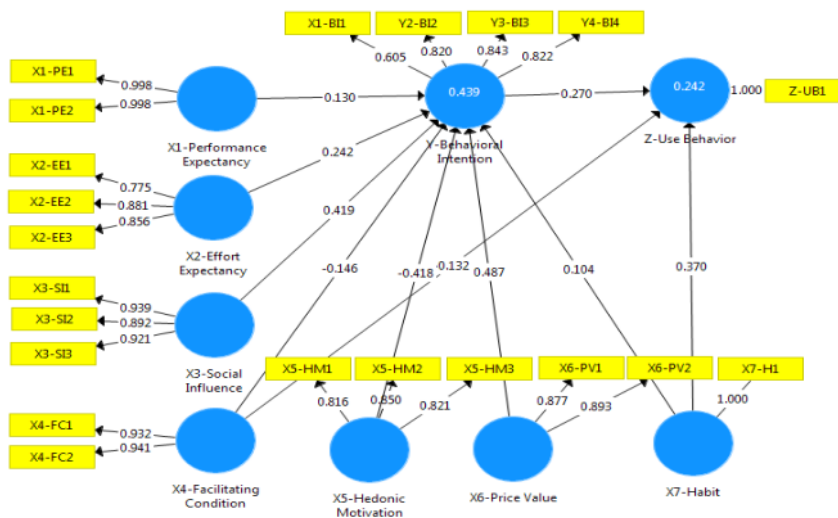


Figure 6. R Square value

Path Coefficient shows the direction of relationship of each variable, if it is positive then meaningful relationship of each positive variable and apply vice versa. T-value and p-value

indicate the level of significance of relationship, if t-value above 1.67 then the relation of each variable is significant equal to 0.1, above 1.96 significant 0.05 and above 2.57 significant 0.01. If p-value is less than 0.01 then each variable is significant 99%, less than 0.05 then significant 95% and less than 0.1 then significant 90%. The p-value is obtained by using MS Excel software with T.DIST.2T formula. It can be deduced that accepted hypothesis are H1, H2, H3, H7a, H7b and H8.

Exogenous variables in this study are: Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Condition, Hedonic Motivation, Price Value, Habit, and Behavioral Intention each have little effect on behavioral interest and also habit of using internet to shop. In use behavior for men and women the equally significant variables are habit and behavior intention. This reflects that habit between men and women affects use behavior of using online shopping on the internet. Women and men who used to use internet regularly every day will be easier to look around on the internet, so it is very wide to look SMEs products in online. In addition, social influence is also a significant variable. This is very natural because with enormous environmental influences encourage people to try to shop on the internet. Promotion by word of mouth experience as a Moderator Variable. The experience observed in this study is divided into three groups: (1) using the internet to shop for the last 1 year; (2) the last 2-5 years; (3) over the last 5 years. Data distribution is dominated by 3-5 years experiences group that is 71%.

In outer loading analysis within gender variables, there are some indicators that are deleted due to value below of 0.708. In outer loading analysis, removed indicator for man are EE1, S11 and FC2. Furthermore, on value of female outer loading, removed indicators are PE3, FC1 and FC2. Deletion of these indicators has been adjusted to previously mentioned rules.

Evaluation of outer model in Figure 3 shows that each group has sufficient AVE to show a good level of validity. The value of composite reliability also shows good results that is between 0.60 and 0.95. For latent variables with one question type, the value of AVE and CR must be 1.00.

Inner model evaluation in table 1 shows hypotheses received from male group are H1, H3 and H8 significant 0.01 and H7b significant 0.1. While in women group, hypothesis received are H7b and H8 significant 0.01 and H2 and H3 significant 0.5. For each hypothesis significant different strengths, in group of men H1, H3 and H8 are moderately significant and H7b is significantly weak because coefficient path value is close to 0. Then in women group, H7b and H8 are moderate, H2 and H3 are weak.

Moderator variables

To see the difference between two groups can use difference of two R2 values for each variable, the difference in behavioral intention variables for both groups is 0.003 or only 0.3% which shows no major differences between two age groups for behavioral intention variables. While the difference in use behavior variable for both groups is 0.1962 or 19.62% which indicates there is a big difference for use behavior variable.

Results shows that group of men and women have a small influence level of 2.63% for behavioral intention variables and 1.74% for variable use behavior. Both values can be said to have a not too great effect. This means that previous experience in using internet to shop has a powerful impact on the adoption of internet technology to shop for consumers in Banten.

CONCLUSIONS AND RECOMMENDATIONS

Interest in using internet technology (behavioral intention) to shop online by consumers of SMEs in Banten influenced by variable performance expectancy, effort expectation, social influence and habit. Then the habit (use behavior) using internet technology to shop online by consumers of SMEs in Banten is influenced by habitual and behavioral intention variables. It is known that sex does not affect adoption of internet technology, it is shown through the difference in both groups under 5%. The biggest influence in interest of using internet technology (behavioral intention) is on community groups who have been using Internet technology to shop for 2-5 years. Furthermore, from this interest, the biggest influence that led to habit of using internet technology to shop (use behavior) is the age group of 22-over years old.

Suggestions for SMEs in Banten based on the results of this study are: (1) conducting internet training to be able to increase knowledge and mastery of information technology, (2) helping to promote SME products in online shop, (3) cooperating with various parties that provide supporting ecommerce facilities in order to improve SMEs competitiveness.

Limitations of this study is collected data not in large numbers. In addition, respondents of this study is limited to consumers of SMEs in Banten alone. It is expected that further research can examine more data to have greater variation.

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