

# ANALYZING THE CONTINUOUS USE INTENTION OF ONLINE CONSUMER ON LEADING ONLINE SHOPPING PLATFORM

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## ABSTRACT

E-commerce in Indonesia is growing very fast. It is supported by the increasing number of internet users in Indonesia and the value of e-commerce transactions. Based on the number of e-commerce companies, Shopee has excellent potential to be utilized by the public to market and sell products. The problem is that the number of visitors to the Shopee application has decreased even though Shopee is still in the first rank of other e-commerce sites. The research referred to the modified UTAUT2 with trust and continuous use intention as a novelty. This study aims to: 1) identify and analyze the factors that influence the continuous use intention of Shopee application in making product purchases; 2) determine and analyze whether age and gender variables moderate the relationship between these factors to continuous use intention. The research focuses on the process of purchasing a product in the Shopee application and active users of the Shopee application who have previously purchased products as research respondents. The research data were obtained through an online questionnaire. The data processing process is carried out using the Structural Equation Model (SEM) technique with the PLS approach, and there are measurement models and structural models. The conclusions from the results of this study are: 1) Facilitating conditions have a significant effect on continuous use intention; 2) Habit has a significant effect on continuous use intention; 3) Gender has a significant moderating effect which affects social influence on continuous use intention; 4) Age has a significant moderating effect that affects facilitating conditions towards continuous use intention.

**Keywords:** *E-commerce, modified UTAUT2, continuous use intention, online shopping*

## 1. INTRODUCTION

The continuous development of technology plays an important role in encouraging progress in various fields, especially information systems. The success of an information system used in a company is an important thing that must be considered [1]. The information system is also supported by a network infrastructure useful for supporting various company activities according to its vision and mission. Based on data from internet users in Indonesia from Asosiasi Penyelenggara Jasa Internet Indonesia (APJII), internet users' penetration in Indonesia in 2018 reached 10.12 percent [2]. One of the purposes of using the internet is to market the products or services to be sold. Trade sales activities or transactions carried out via the internet are also called e-commerce.

E-commerce is the process of selling and purchasing online products and services, including marketing, ordering, electronic's payment for digital goods, online distribution, and online after-sales services [3]. Products obtained through e-commerce have complete and precise information at a lower price than conventional methods. Users only need to visit the desired e-commerce website or application, view product images, compare the prices, make transactions, and the goods will immediately be sent to the registered address.

In Indonesia, e-commerce is growing very fast. The increasing value of e-commerce transactions supports this due to people's penchant for shopping online. One of the largest e-commerce companies in Indonesia is Shopee. Shopee was present in Indonesia in 2015 and is called the first Consumer-to-Consumer (C2C) mobile marketplace

application. Shopee is an online shopping platform that makes it easier for users to search, shop, and sell directly on their mobile phones.

In the 3<sup>rd</sup> quarter of 2019, Shopee was still in second place with 55.96 million visitors. Then in the 4<sup>th</sup> quarter of 2019, Shopee was ranked first with 72.97 million visitors. However, in the 1<sup>st</sup> quarter of 2020, the number of Shopee visitors decreased to 71.53 million visitors compared to Tokopedia visitors [4]. The competition between Shopee and Tokopedia is quite fierce. The map of e-commerce in Indonesia can be seen in Figure 1.

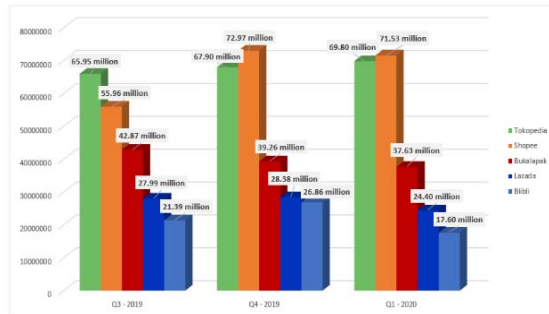


Figure 1: Map of E-Commerce in Indonesia

The intention is to behave in certain ways and know the motivational factors that influence behavior [5]. Meanwhile, the intention to use of e-commerce applications refers to user attitudes in the form of trust and preferences for the e-commerce application itself. Trust is very important to maintain the satisfaction and intention of e-commerce customers [6].

In terms of the trust, Shopee provides a Shopee Guarantee feature which is a protection by holding the buyer's funds until the buyer confirms that the goods received are in good condition or the delivery service party confirms the order. It can affect customer intentions in using the Shopee application in the future.

The continuous use intention is customer loyalty to the same product from a company [7]. This is important because it can affect how a system works, and directly related to the continued use of a system [8]. By increasing the intention to use a system for continuous use, it can increase the actual use of the system [9].

Data will be obtained using Google Form and processed using SmartPLS. The data analysis technique used is the Structural Equation Model (SEM) with the Partial Least Square (PLS) approach. The SEM technique with the PLS approach is a powerful analytical method because it

does not require many assumptions, and the sample size used does not have to be significant [10]. The PLS model's evaluation in this study is a measurement model and a structural model. A measurement model is a measurement model that describes the relationship between latent variables and their indicators, while a structural model is a model that describes the relationship between latent variables that make up the model.

The purpose of this study was to identify and analyze the factors that influence the continuous use intention of Shopee application in making product purchases, and to determine and analyze whether age and gender variables moderate the relationship between these factors to continuous use intention.

This study refers to the theory of the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2). This model describes a description of the various factors that can affect individual acceptance of information technology. The variables used in this study are performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, price value, and habit, while the moderator variables used are age and gender. The modification variables used in this study are trust and behavioral intention variable is changed to continuous use intention with the same meaning.

## 2. RELATED WORKS

### 2.1 Online Shopping Behavior

Online shopping behavior refers to the process of purchasing a product or service via the internet [11]. The online purchase process has now become an alternative in purchasing a product or service. The process of purchasing a product or service online has different steps, like conventional or physical purchases. One of the characteristics of purchasing products or services online is that consumers use the internet and search for information related to the products or services needed.

One of the factors that can influence buying products or services online by consumers is the perception of benefits. Perceived benefits are consumers' beliefs regarding the results obtained through online transactions with certain websites [12]. If a customer believes that he will get a greater profit when buying products or services made online rather than buying through conventional stores, they will choose the shopping option to meet their needs [13].

2.2 E-Commerce

E-commerce describes the process of buying, selling, paying, or exchanging products, services, or information via computer networks, including the internet [14], [15]. E-commerce can help carry out the traditional trading process through new transfer and processing information [16]. E-commerce has three main activities, namely ordering and payment, order fulfillment, and shipping to customers. E-commerce is also exchanging goods or services between independent organizations and people supported by comprehensive information and communication technology systems and global standard networks.

2.3 Unified Theory of Acceptance and Use of Technology (UTAUT)

The UTAUT model is a theory-based model developed by Venkatesh in 2003 [17]. This model describes a description of the various factors that affect individual acceptance of information technology.

This model was developed through eight previously developed technology acceptance models, namely Theory Reasoned Action (TRA), Theory of Acceptance Model (TAM), Motivational Model (MM), Theory of Planned Behavior (TPB), Combined TAM and TPB, Model of PC Utilization (MPCU), Innovation Diffusion Theory (IDT), and Social Cognitive Theory (SCT). Four main variables are considered to have an important role in the direct influence of Behavioral Intention and Use Behavior, namely Performance Expectancy, Effort Expectancy, Social Influence, and Facilitating Condition (Figure 2).

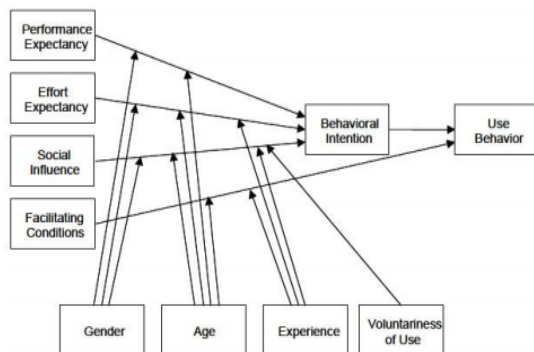


Figure 2: UTAUT Model

2.4 Unified Theory of Acceptance and Use of Technology 2 (UTAUT2)

The UTAUT model was originally developed to analyze employees' use and acceptance of technology, making it inappropriate

for consumer technology. It is essential to understand the UTAUT model in a consumer-centric context [18]. UTAUT2 is a model extension of the model in the context of consumer behavior [18].

In this model, three new variables are added to explain consumer behavior using technology into the UTAUT model, namely Hedonic Motivation, Price Value, Habit, and three moderating variables, namely Age, Gender, and Experience [18]. The aim is to identify three essential variables from research on the use and acceptance of technology, both for the general public and consumers, replace some of the existing relationships in the UTAUT model concept, and introduce a new relationship [18]. UTAUT2 model can be shown in Figure 3.

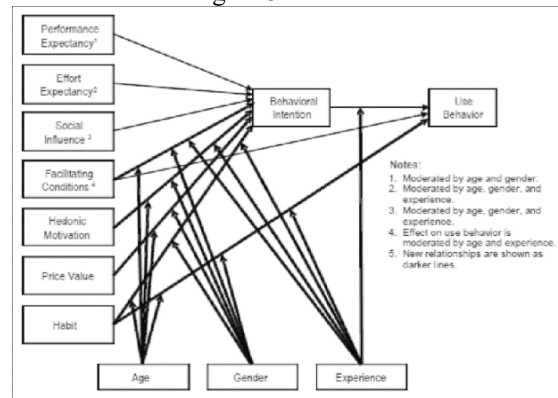


Figure 3: UTAUT2 Model

2.5 Related Variables

1. Performance Expectancy

Performance expectancy is the level at which an individual believes that using the system will help gain benefits in performance [17].

2. Effort Expectancy

Effort expectancy is the level of convenience consumers feel is related to using a system [17]. This variable includes clarity regarding the purpose of using information technology and the ease of use of the system for specific purposes.

3. Social Influence

Social influence is the use of technology-based on environmental or social influences [17].

4. Facilitating Conditions

Facilitating conditions are a person's perception of infrastructure, resources, and techniques to use a technology [18].

5. Hedonic Motivation

Hedonic motivation is motivation to make purchases based on an individual's emotional need for pleasure [19]. This variable refers to

the consumer's emotional involvement in shopping activities [20].

**6. Price Value**

The price value is a trade-off between the costs paid and the benefits of using a technology [18].

**7. Habit**

Habit is how a person uses a system to carry out daily activities [21].

**8. Trust**

Trust is a belief regarding the goodwill and behavior of others [22]. Trust is an individual's willingness to depend on other parties who are directly involved in the exchange process because the individual has confidence in the other party [23].

**9. Continuous Use Intention**

The definition of continuous use intention is adapted from behavioral intention. Behavioral intentions are the behavior of consumers who are loyal to a company so that they are willing to recommend to others because they get good service from the company [23]. Continuous use intention means that a consumer has formulated a plan to carry out some predetermined future behavior continuously [24].

**3. RESEARCH METHODOLOGY**

**3.1 Sampling and Data Collection**

In this study, the population used is all Shopee application users who have made product purchases. The sampling technique used in this study was simple random sampling. Simple random sampling involves taking sample members from an existing population and randomly selected regardless of their population position [24].

The questionnaires were distributed online via Google Form. This study uses the Hair formula. Hair formula is used because population size cannot be known with certainty [25]. Determining the study sample size from the population can use the formula 15 or 20 times the independent variable [25]. Based on these calculations, the number of samples needed in this study is a minimum of 160 samples.

**3.2 Research Model and Hypothesis**

In this study, the author's model refers to the Unified Theory of Acceptance and Use Technology 2 (UTAUT2) theory, which is updated by other variables. The variables used in the UTAUT2 model are performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, price value, and habit. In

contrast, the moderator variables used in the UTAUT2 model are age and gender. Additional variables used for model modification are trust and continuous use intention.

Several modifications were made to this study for several reasons. First, the behavioral intention variable is replaced by the continuous use intention variable. It eliminated the variable of use behavior because the writer wanted to know the consumer's continuing intention in using the Shopee application for the product purchase process. This is in line with research conducted by [24] [27] [28] [29] [30], who made changes to the behavioral intention variable.

The second modification is the addition of the trust variable as a new variable in the research model. The following research was conducted by [26], which proved that trust has a significant influence on continuance intention.

The third modification is that this study does not include experience as a moderating variable. The data collection process carried out in this study is not a longitudinal study but a cross-sectional study. Therefore, the experience variable is not included in the research model. Figure 4 shows the modified UTAUT2 model for the research test.

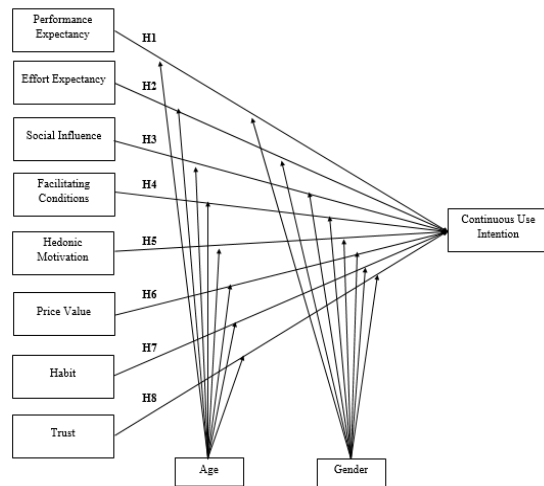


Figure 4: Hypothesis Development

Based on Figure 4, this study consists of 24 hypotheses. The following hypothesis was found in Table 1:

Table 1: Hypothesis

Hypothesis	Description
H1	Performance Expectancy affects Continuous Use Intention
H1a	Age has a moderating effect that affects performance expectancy on continuous use intention
H1b	Gender has a moderating effect that

	affects performance expectancy on continuous use intention
H2	Effort Expectancy affects Continuous Use Intention.
H2a	Age has a moderating effect that affects effort expectancy on continuous use intention
H2b	Gender has a moderating effect that affects effort expectancy on continuous use intention
H3	Social Influence affects Continuous Use Intention.
H3a	Age has a moderating effect that affects social influence on continuous use intention
H3b	Gender has a moderating effect that affects social influence on continuous use intention
H4	Facilitating Conditions affects Continuous Use Intention.
H4a	Age has a moderating effect that affects facilitating conditions on continuous use intention
H4b	Gender has a moderating effect that affects facilitating conditions on continuous use intention
H5	Hedonic Motivation affects Continuous Use Intention.
H5a	Age has a moderating effect that affects hedonic motivation on continuous use intention
H5b	Gender has a moderating effect that affects hedonic motivation on continuous use intention
H6	Price Value affects Continuous Use Intention.
H6a	Age has a moderating effect that affects price value on continuous use intention
H6b	Gender has a moderating effect that affects price value on continuous use intention
H7	Habit affects Continuous Use Intention.
H7a	Age has a moderating effect that affects habit on continuous use intention
H7b	Gender has a moderating effect that affects habit on continuous use intention
H8	Trust affects Continuous Use Intention.
H8a	Age has a moderating effect that affects trust on continuous use

	intention
H8b	Gender has a moderating effect that affects trust on continuous use intention

### 3.3 Variable Measurement

The indicators are needed to measure the variables in this study. The following variables with each indicator are described in Table 2:

Table 2: Variable Measurement

Variable	Code	Indicator	Reference
Performance Expectancy (PE)	PE1	Feeling its use	[17], [18], [28]
	PE2	Increasing its use	
	PE3	Accelerating activities	
Effort Expectancy (EE)	EE1	Easy to learn	[17], [18], [28]
	EE2	Easy to use	
	EE3	Easy to be proficient in use	
Social Influence (SI)	SI1	People who are considered important	[17], [18], [28]
	SI2	People who influence behavior	
	SI3	Perceptions of people who are respected about the use of application	
Facilitating Conditions (FC)	FC1	Usage knowledge	[17], [18], [28]
	FC2	System compatibility	
	FC3	Company support to overcome system using difficulties	
Hedonic Motivation (HM)	HM1	Pleasure of use	[18], [28]
	HM2	Satisfaction of lifestyle demands	[31]

	HM3	Experience of using the application	[32]
Price Value (PV)	PV1	Affordable product prices in the application	[33]
	PV2	Finding cheap product offers	[28]
	PV3	Saving money	
Habit (HB)	HB1	Application usage habits	[18], [28], [33]
	HB2	Addiction to application usage	
	HB3	Application usage requirements	
Trust (TR)	TR1	Good service providers	[34], [35]
	TR2	Trust in shopping	[26], [34], [35]
	TR3	Care for customers	[34], [35]
Continuous Use Intention (CUI)	CUI1	Continuous application usage	[26], [28], [30], [36]
	CUI2	Application usage time	
	CUI3	Application usage decisions	

**3.4 Analytical Methods**

The data analysis technique used is the Structural Equation Model (SEM) with the Partial Least Square (PLS) approach and descriptive analysis. SEM is a statistical analysis technique that can analyze the relationship between latent variables and their indicators, while descriptive analysis is used to explain the profile of respondents. Validity testing will be carried out by looking at the loading factor value of each indicator in each variable and the Average Variance Extracted (AVE) value for each variable. An indicator can be said to be valid if the loading factor value on each indicator is greater than 0.7 and the AVE on each variable is greater than 0.5 [37]. In this study, reliability tests were carried out to prove the level of accuracy, consistency, and accuracy of an instrument in

measuring constructs. In this study, reliability testing was carried out using Cronbach's alpha and composite reliability. The value of Cronbach's alpha and composite reliability is greater than 0.7 [37]. To measure the relationship between these variables, researchers will use the t-test and p-value. The t-test has t-table value of 1.97 and a p-value of less than 0.05, so that the relationship between these variables can be considered significant [25]. Apart from the t-test value and p-value, it can also be seen from the R<sup>2</sup> value for the latent dependent variable, which is modeled to get the influence of the independent latent variable. The categories of R<sup>2</sup> are 0.75 (strong), 0.50 (moderate), and 0.25 (weak). A hypothesis can be accepted if a significant level is acceptable. If the p-value is less than 0.001, then the relationship between variables can be considered very significant.

**4. RESULTS AND DISCUSSION**

**4.1 Demographics of Respondents**

The number of respondents obtained by the author was 220 respondents. At the time of data processing, the author used 217 respondents. Some respondents have never used the Shopee application and double respondent data. The following are the results of respondent demographics:

Table 3: Demographic of Respondents

Item	Demographic	Total	Percentage
Gender	Female	133	61.3%
	Male	84	38.7%
Age	<20	33	15.2%
	21-25	148	68.2%
	26-30	22	10.1%
	31-35	9	4.1%
	>35	5	2.3%

**4.2 Validity Test**

Validity testing is done by using the values tested on the nine variables used in this study. The validity test used in this study, namely testing the loading factor value and Average Variance Extracted (AVE). The loading factor has a value of >0.7 and AVE has a value of >0.5. The following are the results of data calculations of validity test in this study:

Table 4: Validity Test

Variable and Item	Loading Factor	AVE	Result
<b>Performance Expectancy</b>			
PE1	0.809	0.705	Valid
PE2	0.869		Valid
PE3	0.839		Valid
<b>Effort Expectancy</b>			

EE1	0.904	0.777	Valid
EE2	0.880		Valid
EE3	0.860		Valid
<b>Social Influence</b>			
SI1	0.880	0.811	Valid
SI2	0.920		Valid
SI3	0.902		Valid
<b>Facilitating Conditions</b>			
FC1	0.852	0.662	Valid
FC2	0.843		Valid
FC3	0.742		Valid
<b>Hedonic Motivation</b>			
HM1	0.855	0.730	Valid
HM2	0.812		Valid
HM3	0.894		Valid
<b>Price Value</b>			
PV1	0.858	0.712	Valid
PV2	0.841		Valid
PV3	0.833		Valid
<b>Habit</b>			
HB1	0.921	0.850	Valid
HB2	0.931		Valid
HB3	0.914		Valid
<b>Trust</b>			
TR1	0.924	0.831	Valid
TR2	0.903		Valid
TR3	0.906		Valid
<b>Continuous Use Intention</b>			
CUI1	0.909	0.804	Valid
CUI2	0.888		Valid
CUI3	0.892		Valid

PV	0.881	0.799	Reliable
HB	0.945	0.912	Reliable
TR	0.936	0.898	Reliable
CUI	0.925	0.878	Reliable

Based on Table 5, it can be seen that the value of composite reliability and Cronbach's alpha on each variable in this study is greater than the specified value, which is more than 0.7. Therefore, these variables are reliable or trustworthy with this study.

**4.4 Structural Model**

The structural model testing in this study was carried out based on the relationship between variables. The previous calculations will be carried out by bootstrapping to obtain the results in performing the structural model. The following are the results of the bootstrapping process in this study (Figure 5).

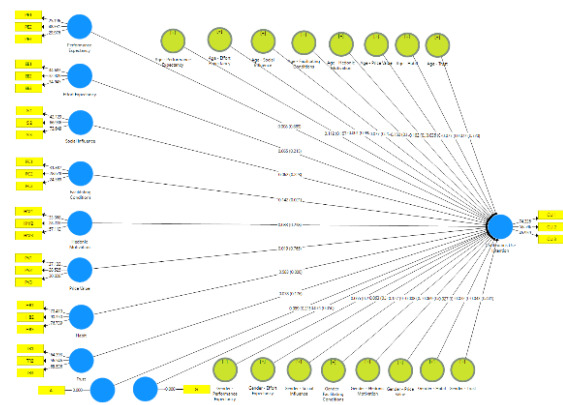


Figure 5: Output Bootstrapping with Smart-PLS

The structural model test can be seen from the R<sup>2</sup> value for the latent dependent variable, which is modeled to influence the independent latent variable. Categories of R<sup>2</sup> are 0.75 (strong), 0.50 (moderate), and 0.25 (weak). The results of R-Square and category in this study can be seen in Table 6.

Table 6: R-Square

	R-Square	Category
Continuous Use Intention	0.783	Strong

Based on Table 4, the loading factor value in each statement is more than 0.7. It means that each of these statements is valid for use in this study. The AVE value for each variable is also more than 0.5. It means that every variable used is valid in this study.

**4.3 Reliability Test**

Reliability tests were carried out in this study, namely Composite Reliability and Cronbach's Alpha. The value of Composite Reliability and Cronbach's Alpha is >0.7. The following are the results of data calculations of reliability test in this study:

Table 5: Reliability Test

Variable	Composite Reliability	Cronbach's Alpha	Result
PE	0.877	0.791	Reliable
EE	0.913	0.857	Reliable
SI	0.928	0.885	Reliable
FC	0.854	0.742	Reliable
HM	0.890	0.814	Reliable

**4.5 Hypothesis Test**

Hypothesis testing will be seen from the t-test value and p-value. The t-test is used to determine the regression relationship for each variable used in the study, while the p-value is used to determine the significance of the relationship between one variable and another. The t-test has a t-table value >1.97 so that each variable can be considered to have a meaningful relationship, and the p-value is <0.05 so that the relationship between

variables is considered significant. The following is a table of the overall value of the t-value and p-value on the research variables.

Table 7: Hypothesis Test

Construct	T-Statistic	P-Values	Result
PE → CUI	0.140	0.889	Rejected
A – PE → CUI	1.419	0.157	Rejected
G – PE → CUI	1.145	0.253	Rejected
EE → CUI	1.243	0.215	Rejected
A – EE → CUI	0.010	0.992	Rejected
G – EE → CUI	1.131	0.259	Rejected
SI → CUI	1.221	0.223	Rejected
A – SI → CUI	1.269	0.205	Rejected
G – SI → CUI	2.612	0.009	Accepted
FC → CUI	2.308	0.021	Accepted
A – FC → CUI	2.321	0.021	Accepted
G – FC → CUI	0.128	0.898	Rejected
HM → CUI	1.182	0.238	Rejected
A – HM → CUI	1.003	0.316	Rejected
G – HM → CUI	1.025	0.306	Rejected
PV → CUI	0.299	0.765	Rejected
A – PV → CUI	0.446	0.656	Rejected
G – PV → CUI	0.443	0.658	Rejected
HB → CUI	11.604	0.000	Accepted
A – HB → CUI	1.108	0.268	Rejected
G – HB → CUI	0.441	0.660	Rejected
TR → CUI	1.356	0.176	Rejected
A – TR → CUI	0.359	0.720	Rejected
G – TR → CUI	0.771	0.441	Rejected

Based on Table 7, it can be seen that of the 24 hypotheses in this study, only 4 were accepted. The accepted hypothesis consists of 2 main factors and 2 moderating effects used in this study. The detail explanation is shown below.

### H1: Performance Expectancy affects Continuous Use Intention.

Based on the results of the t-test and p-value in this study, the variable performance expectancy has a t-value (0.140) < t-table (1.97) and a significance of 0.889 > 0.05. It means that **H1 is rejected**. It can be concluded that performance expectancy does not have a significant effect on continuous use intention. According to the author, respondents feel that the technology provided by Shopee can provide benefits and uses in doing shopping activities. However, this is not the primary motivation for respondents to use the application. This result is supported by research conducted by [38] that respondents feel the benefits and usability and convenience of the technology

provided by Shopee are not one of the main factors that encourage respondents to use Shopee. This is in line with research conducted by [38], [39], who found that performance expectancy does not affect intention.

### H1a: Age has a moderating effect that affects performance expectancy on continuous use intention.

Based on the results of the t-test and p-value in this study, the variable age, which moderates the variable performance expectancy towards continuous use intention, has a t-value (1.419) < t-table (1.97) and a significance of 0.157 > 0.05, which means that **H1a is rejected**. It can be concluded that age does not have a significant moderating effect that affects performance expectancy on continuous use intention. These results indicate that age differences do not have a significant moderating effect that affects performance expectancy on continuous use intention. In other words, the respondent's age does not affect the respondent's belief in the benefits provided by technology in the intention of using the Shopee application for sustainable use. These results are in line with research conducted by [40] that there is no moderating effect of age on the construct of performance expectancy on consumer intentions and [26], which reveals that age did not affect the construct of performance expectancy on continuing intention.

### H1b: Gender has a moderating effect that affects performance expectancy on continuous use intention.

Based on the results of the t and p-value tests in this study, the gender variable which moderates the variable performance expectancy towards continuous use intention has a t-value (1.145) < t-table (1.97) and a significance of 0.253 > 0.05, which means that **H1b is rejected**. It can be concluded that gender does not have a significant moderating effect that affects performance expectancy on continuous use intention. These results indicate that gender differences do not have a significant moderating effect that can affect performance expectancy on continuous use intention. In other words, the sex of the respondent does not affect the respondent's belief in the benefits provided by technology in the intention to continue using the Shopee application. The role of gender moderation does not moderate the effect of performance expectancy on behavioral intention, similar to studies conducted by [26], [41], [42].

### H2: Effort Expectancy affects Continuous Use Intention.



Based on the results of the t-test and p-value in this study, the effort expectancy variable has a t-value (1.243) < t-table (1.97) and a significance of  $0.215 > 0.05$ , which means that **H2 is rejected**. It can be concluded that effort expectancy does not have a significant effect on continuous use intention. According to the author, respondents are not too worried about the level of ease of use of the Shopee application. The difficulty in using the application is not a barrier for respondents intending to use the Shopee application because respondents are accustomed to using technology and can learn technology. Users now face fewer obstacles in using an application due to continuous technological advances [28], [30]. The results of this study are supported by previous studies [26], [29], [35], [43], which reveal that effort expectancy does not affect an intention.

#### **H2a: Age has a moderating effect that affects effort expectancy on continuous use intention.**

Based on the results of the t and p-value tests in this study, the variable age, which moderates the effort expectancy variable on continuous use intention has a t-value (0.010) < t-table (1.97) and a significance of  $0.992 > 0.05$ , which means that **H2a is rejected**. It can be concluded that age does not have a significant moderating effect that affects effort expectancy on continuous use intention. These results indicate that age differences do not have a significant moderating effect that affects effort expectancy on continuous use intention. In other words, the respondents' age does not affect the level of ease of use of the application in terms of the intention to continue using the Shopee application. These results are supported by previous studies [26], [40], [44] that age has no effect on the construct of effort expectancy for an intention.

#### **H2b: Gender has a moderating effect that affects effort expectancy on continuous use intention.**

Based on the results of the t and p-value tests in this study, the gender variable which moderates the effort expectancy variable on continuous use intention has a t-value (1.131) < t-table (1.97) and a significance of  $0.259 > 0.05$ , which means that **H2b is rejected**. It can be concluded that gender does not have a significant moderating effect that affects effort expectancy on continuous use intention. These results indicate that gender does not have a significant moderating effect that can affect effort expectancy on continuous use intention. In other words, the gender of the respondent does not affect the level of ease of use of the application in the intention of continuing to use the Shopee application. These results are in line with research conducted by [40],

[42], [44], which states that there is no effect of gender on the effort expectancy construct on an intention.

#### **H3: Social Influence affects Continuous Use Intention.**

Based on the results of the t-test and p-value in this study, the social influence variable has a t-value (1.221) < t-table (1.97) and a significance of  $0.223 > 0.05$ , which means that **H3 is rejected**. It can be concluded that social influence does not have a significant effect on continuous use intention. Most of the respondents in this study used the Shopee application not from the influence of the surrounding environment, the closest people, or the experience of someone who had used the application, but an urge from themselves to use it. It is also supported by research conducted by [38]. Users are not influenced by the opinions and suggestions of family and friends who think that you should or should not use the application due to reviews [35]. The social influence to support application use is reduced because application users have sufficient knowledge about using a technology [30].

#### **H3a: Age has a moderating effect that affects social influence on continuous use intention.**

Based on the results of the t and p-value tests in this study, the variable age, which moderates the social influence variable on continuous use intention, has a t-value (1.269) < t-table (1.97) and a significance of  $0.205 > 0.05$ , which means that **H3a is rejected**. It can be concluded that age does not have a significant moderating effect that affects social influence on continuous use intention. These results indicate that age differences do not have a significant moderating effect which can affect social influence on continuous use intention. In other words, the respondents' age does not affect the perceptions that others believe in the necessity to use technology. This result is supported by previous research conducted by [40], [44], which revealed that there was no moderating effect of age on the social influence construct on behavioral intention [26], which revealed that age did not have a moderating effect on social influence on continuance intention.

#### **H3b: Gender has a moderating effect that affects social influence on continuous use intention.**

Based on the results of the t and p-value tests in this study, the gender variable which moderates the social influence variable on continuous use intention has a t-value (2,612) > t-table (1.97) and a significance of  $0.009 < 0.05$ , which means that **H3b is accepted**. It can be concluded that gender has a significant moderating

effect which affects social influence on continuous use intention. These results indicate that the sex differences in this study have a significant moderating effect that can influence the social influence on the intention of sustainable use. In other words, the gender of the respondent can influence the perception that other people believe in the necessity to use technology. This result is supported by previous research conducted by [27], [45], which revealed that there is a role of gender moderation in the path of social influence to sustainable intention.

#### **H4: Facilitating Conditions affects Continuous Use Intention.**

Based on the results of the t-test and p-value in this study, the facilitating conditions variable has a t-value (2.308) > t-table (1.97) and a significance of 0.021 < 0.05, which means that **H4 is accepted**. It can be concluded that facilitating conditions have a significant effect on continuous use intention. According to the author, respondents focused on facility conditions that could help respondents use the Shopee application, such as compatibility or compatibility of electronic devices used by respondents with the Shopee application. The results of this study are supported by previous studies [35], [38], [46], which revealed that facilitating conditions towards an intention.

#### **H4a: Age has a moderating effect that affects facilitating conditions towards continuous use intention.**

Based on the results of the t-test and p-value in this study, the variable age, which is moderating the facilitating conditions variable towards continuous use intention, has a t-value (2.321) > t-table (1.97) and a significance of 0.021 < 0.05, which means that **H4a is accepted**. It can be concluded that age has a significant moderating effect that affects facilitating conditions towards continuous use intention. These results indicate that age differences have a significant moderating effect which can affect facilitating conditions towards continuous use intention. In other words, the respondent's age affects the level of individual confidence that the company and technical infrastructure is available to support the use of the system. Based on the respondents' profile in this study, the majority of respondents aged 21 to 25 years are more open to technology and focus on the compatibility or compatibility of their devices in support of the intention of sustainable use of the Shopee application. This study's results are supported by a study conducted by [45], who revealed that the effect of facilitating conditions on the intention of use is moderated by age.

#### **H4b: Gender has a moderating effect that affects facilitating conditions towards continuous use intention.**

Based on the results of the t-test and p-value in this study, the gender variable, which is moderating the facilitating conditions variable towards continuous use intention, has a t-value (0.128) < t-table (1.97) and a significance of 0.898 > 0.05, which means that **H4b is rejected**. It can be concluded that gender does not have a significant moderating effect that affects facilitating conditions towards continuous use intention. These results indicate that the sex differences of respondents obtained in this study do not have a significant moderating effect which can affect the level of individual confidence that the company and technical infrastructure is available to support the use of the system. The role of gender moderation does not moderate facilitating conditions against the intention to use, similar to studies conducted by [40], [44]. Another study that supports this study's results is a study conducted by [26] that revealed that gender does not have a moderating effect that affects facilitating conditions on continuance intention.

#### **H5: Hedonic Motivation affects Continuous Use Intention.**

Based on the results of the t-test and p-value in this study, the hedonic motivation variable has a t-value (1.182) < t-table (1.97) and a significance of 0.238 > 0.05, which means that **H5 is rejected**. It can be concluded that hedonic motivation does not have a significant effect on continuous use intention. This result is supported by previous studies [28], [39], which revealed that hedonic motivation does not affect continuous use intention. According to the author, it is likely that the respondent knows enough about the reputation of the famous Shopee or the brand ambassador used by Shopee to make respondents able to shop online through the application.

#### **H5a: Age has a moderating effect that affects the hedonic motivation on continuous use intention.**

Based on the results of the t-test and p-value in this study, the variable age, which moderates the hedonic motivation variable on continuous use intention, has a t-value (1,003) < t-table (1.97) and a significance of 0.316 > 0.05, which means that **H5a is rejected**. It can be concluded that age does not have a significant moderating effect that affects hedonic motivation on continuous use intention. These results indicate that age differences do not have a moderating effect that can affect hedonic motivation on continuous use intention. In other words, the respondent's age does not affect the pleasure arising from using

technology. It is supported by a study conducted by [44], which revealed that the difference in effect between age groups was not found.

**H5: Gender has a moderating effect that affects the hedonic motivation on continuous use intention.**

Based on the results of the t and p-value tests in this study, the gender variable which moderates the hedonic motivation variable on continuous use intention has a t-value (1.025) < t-table (1.97) and a significance of 0.306 > 0.05, which means that **H5b is rejected**. It can be concluded that there is no significant difference in the pleasure felt by female respondents and male respondents to use the Shopee application. These results indicate that gender does not have a significant moderating effect that can affect hedonic motivation on continuous use intention. In other words, the gender of the respondent does not affect the pleasure arising from using technology. The role of gender moderation, which does not moderate hedonic motivation on behavioral intention, is similar to research conducted by [41], [44].

**H6: Price Value affects Continuous Use Intention.**

Based on the results of the t-test and p-value in this study, the variable price value has a t-value (0.299) < t-table (1.97) and a significance of 0.765 > 0.05, which means that **H6 is rejected**. It can be concluded that price value does not have a significant effect on continuous use intention. According to the author, the price of products sold on the Shopee application is not considered for respondents to reuse the Shopee application. This result is supported by previous studies [28], [29], [35], [41], [47], which revealed that price value does not affect an intention.

**H6a: Age has a moderating effect which affects the price value on continuous use intention.**

Based on the results of the t-test and p-value in this study, the variable age which moderates the variable price value to continuous use intention has a t-value (0.446) < t-table (1.97) and a significance of 0.656 > 0.05, which means that **H6a is rejected**. It can be concluded that age does not have a significant moderating effect that affects price value on continuous use intention. These results indicate that age differences do not have a significant moderating effect that can affect price value on continuous use intention. In other words, the age of the respondents does not affect the perceived benefits from using the Shopee application compared to the costs incurred. The study which supports this result is [44], which

revealed that differences in effect between age groups were not found. Previous research conducted by [40] also said the same thing: there was no moderating effect of age on the price value construct on the behavioral intention of using the application. Another study that supports this result is [26], where age does not affect price value on continuance intention.

**H6b: Gender has a moderating effect that affects price value on continuous use intention.**

Based on the results of the t and p-value tests in this study, the gender variable which moderates the price value variable on continuous use intention has a t-value (0.443) < t-table (1.97) and a significance of 0.658 > 0.05, which means that **H6b is rejected**. It can be concluded that age does not have a significant moderating effect that affects price value on continuous use intention. These results indicate that age differences do not have a significant moderating effect that can affect price value on continuous use intention. In other words, the gender of the respondent does not affect the perceived benefits of using the Shopee application compared to the costs incurred. These results are supported by studies conducted by [40], [41].

**H7: Habit affects Continuous Use Intention.**

Based on the results of the t-test and p-value in this study, the habit variable has a t-value (11.604) > t-table (1.97) and a significance of 0.000 < 0.05, which means that **H7 is accepted**. It can be concluded that habit has a significant effect on continuous use intention. According to the author, online shopping activities today using the Shopee application are often carried out by respondents compared to conventional shopping. Most respondents use the Shopee application because it is easy for respondents to use. The habit of respondents in using the Shopee application is the strongest predictor of the intention to do shopping activities. This result is supported by previous studies [29], [30], [33], [35], which revealed that habit has an important relationship in continuous use intention.

**H7a: Age has a moderating effect that affects habit towards continuous use intention.**

Based on the results of the t-test and p-value in this study, the variable age, which moderates the habit variable towards continuous use intention has a t-value (1.108) < t-table (1.97) and a significance of 0.268 > 0.05, which means that **H7a is rejected**. It can be concluded that age does not have a significant moderating effect that affects habit towards continuous use intention. These results indicate that age differences do not

have a significant moderating effect that can influence habit towards continuous use intention. In other words, the respondent's age does not affect a person's tendency to do something automatically. This result is supported by a study conducted by [26], which revealed no moderating effect of age affecting habit towards continuous use.

#### H7b: Gender has a moderating effect that affects habit towards continuous use intention.

Based on the results of the t-test and p-value in this study, the gender variable that moderates the habit variable against continuous use intention has a t-value (0.441) < t-table (1.97) and a significance of 0.660 > 0.05, which means that **H7b is rejected**. It can be concluded that gender does not have a significant moderating effect that affects habit towards continuous use intention. These results indicate that gender differences do not have a significant moderating effect that can influence habit towards continuous use intention. In other words, the gender of the respondent does not affect a person's tendency to do something automatically. The role of gender moderation does not moderate habits towards use intention, similar to studies conducted by [26], [41].

#### H8: Trust affects Continuous Use Intention.

Based on the results of the t-test and p-value in this study, the trust variable has a t-value (1.356) < t-table (1.97) and a significance of 0.176 > 0.05, which means that **H8 is rejected**. It can be concluded that trust does not have a significant effect on continuous use intention. According to the author, for the respondents of this study, Shopee can be trusted by consumers to carry out shopping activities. However, it is not an important variable in the intention of sustainable use. This result is supported by previous research [35], [47], [48], which revealed that trust is not an important variable to be considered in increasing an intention to do shopping.

#### H8a: Age has a moderating effect that affects trust towards continuous use intention.

Based on the results of the t-test and p-value in this study, the variable age, which moderates the variable trust towards continuous use intention has a t-value (0.359) < t-table (1.97) and a significance of 0.720 > 0.05, which means that **H8a is rejected**. It can be concluded that age does not have a significant moderating effect that affects trust on continuous use intention. These results indicate that age differences do not have a significant moderating effect that can affect trust on continuous use intention. In other words, the age of the respondents does not affect the level of user trust in technology. The research that supports the

results of this study is [26], which reveals that age differences do not affect the trust factor towards consumers' continuing intentions.

#### H8b: Gender has a moderating effect that affects trust towards continuous use intention.

Based on the results of the t-test and p-value in this study, the gender variable which moderates the trust variable on continuous use intention has a t-value (0.771) < t-table (1.97) and a significance of 0.441 > 0.05, which means that **H8b is rejected**. It can be concluded that gender does not have a significant moderating effect that affects trust on continuous use intention. These results indicate that the sex differences of respondents obtained in this study do not have a significant moderating effect which can affect the level of user confidence in technology. In other words, the gender of the respondents does not affect the level of user trust in technology. This result is supported by a study conducted by [26] that revealed no gender moderating effect affecting trust in the intention of continuing use of the application.

Based on the hypothesis testing results above, the following is a research model after the results of the analysis and hypothesis testing carried out in this study.

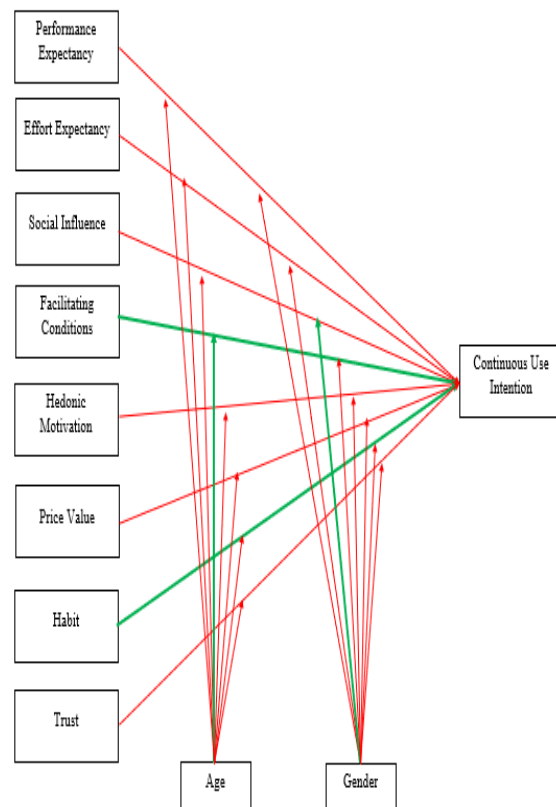


Figure 6. Hypothesis Testing Model

Based on Figure 6, this study can conclude that the habit variable is the variable that most influences continuous use intention and facilitating conditions on continuous use intention. Meanwhile, the moderating variable age influences continuous use intention, and the moderating variable gender influences continuous use intention.

## 5. CONCLUSION AND LIMITATIONS

According to the research results on the structural model, from the eight research hypotheses tested, two research hypotheses were accepted, namely facilitating conditions (FC) and habit (HB). Based on these results, the researchers concluded that the factors that influence the intention to use the Shopee application in carrying out shopping activities are as follows:

1. Facilitating Conditions (FC), namely the level of individual confidence that the available infrastructure and techniques can support the Shopee application's use. It includes knowledge of usage (FC1), system compatibility (FC2), and enterprise support for overcoming system usage difficulties (FC3).
2. Habit (HB), namely the extent to which someone tends to do something automatically to use the Shopee application in shopping activities. It includes application usage habits (HB1), addiction to application usage (HB2), and mandatory use of applications (HB3).

The two factors above have been proven to be factors that influence the intention to use the Shopee application continuously in purchasing products, and the habit factor (HB) is the factor that most influences the continuous use intention (CUI) of the Shopee application. Meanwhile, other factors such as performance expectancy (PE), effort expectancy (EE), social influence (SI), hedonic motivation (HM), price value (PV), and trust (TR) have no effect on continuous use intention (CUI) applications. Shopee in purchasing products.

According to the results of research conducted on the structural model, from 16 hypotheses regarding moderation in the research being tested, two moderation research hypotheses were accepted:

1. Gender (G) has a moderating effect that affects social influence (SI) on the continuous use intention (CUI) of the Shopee application. The influence of the environment on the intention to use the Shopee application for sustainable use in making product purchases is stronger for female users.
2. Age (A) has a moderating effect that affects facilitating conditions (FC) on the continuous use intention (CUI) of the Shopee application.

The effect of facilitating conditions (FC) on the intention to continue using the Shopee application in making product purchases is higher for users aged 21 to 25 years.

The findings of this study indicate the achievement of the objectives of this study. It can be seen that facilitating conditions and habit are the factors that affect the intention to continue using the Shopee application, and gender has a moderating effect that affects social influence on the continuous use intention, and age has a moderating effect that affects facilitating conditions on the continuous use intention.

The scope of this research refers to the UTAUT2 model and analyzes the relationship between variables, current Shopee application users are respondents who will fill out a questionnaire to find out the intention of continuous use of the Shopee application, and these users are certainly active users of the Shopee application who have done shopping activities.

The limitations of this study are that this study only uses a minimum sample of 160 samples, the researcher only adds one new variable as a modification, and the use of the application that is measured is only for shopping activities, not including other features of the Shopee application.

Based on the research results obtained, the following are suggestions that can be given by researchers, either for companies or for further research: it can be add variables and other indicators that are not yet in this study or add research or add research data based on interviews from the company, the same research model in this study can be used on other e-commerce companies, and the number of research respondents can be increased and evenly distributed in terms of age and gender.

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