The Effect of Unified Theory of Acceptance and Ue of Technology (UTAUT) on Behavior Intention and Use Behavior in Buying Baby Product Online

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Abstract
This study analyze the effects of effort expectation, performance expectancy, social influences, and facility conditions on behavioral intentions and using behavior. The research method this time uses quantitative methods with data collection tools using a questionnaire with a Likert scale. The analytical method of this research is PLS-SEM. The research sample is the people of the city of Solo who have done online shopping for baby products, with a total sample of 95 respondents. The research variables used in this study are the independent variables, namely performance expectations, business expectations, social influence, and facility conditions, and the dependent variables are behavioral intention and usage behavior. The results of the data will then be processed with SMART PLS 3.0. The results of this study are that performance expectations and business expectations do not affect behavioral intentions, social influence and facility conditions affect behavioral intentions, and facility conditions affect usage behavior.

Keywords: Performance Expectancy, Effort Expectancy, Social Influence, Facility Condition, UTAUT, Behavioral Intentions, Usage Behavior, E-commerce

1. Introduction

1.1 Introduce the Problem
Internet accessibility on computers and mobile devices is expanding rapidly, spurring the global expansion of online shopping (Hurtado et al., 2019) Indonesia is the largest online shopping country in Southeast Asia (https://lifestyle.bisnis.com, 2020). growth in the number of e-commerce transactions in Indonesia. In 2017, the transaction value of Indonesian e-commerce had a value of 42.2 trillion IDR. In 2018, it had a value of 105.6 trillion IDR. In 2019, the value of transactions in e-commerce had a value of 205.5 trillion IDR. In 2020, the transaction value of e-commerce in Indonesia was 266.3 trillion IDR. This shows a significant growth in nominal e-commerce transactions during 2017–2020

The baby product market segment has excellent potential and is very interesting to work on. This is due to the large population, which reached 266.91 million individuals in 2019. (Sapitri Eka, Sampurno, 2020). In addition, baby product sales have increased annually, including in 2014. Sales of infant and maternal products reached 23,903 million. In 2015 sales of baby and maternal

products touched 25,801 million rupiahs. In 2016 sales of baby products reached 28,593 million rupiahs. In 2017 sales of baby products reached 30,574 million rupiahs, and in 2018 it touched 32,545 million rupiahs. It can be seen that there is a growth in sales of baby and maternal products every year, this shows that the baby product market has good business opportunities in Indonesia (https://research.hktdc.com/en/article/MzQ2OTQ5MDQy). This makes researchers want to know how much acceptance of online shopping for baby products is in the city of Solo.

Using the unified theory of acceptance and use of technology (UTAUT), the researcher hopes to determine if consumers will be interested in e-commerce for the sale of baby products in the future. This is due to the fact that, according to Venkatesh et al. in (Dewi et al., 2020), the unified theory of acceptance and use of technology can help explain and predict the acceptance or rejection of new technology adoption, in this case consumer acceptance of purchasing baby products via e-commerce. UTAUT Model is influenced by four factors, including performance expectations, business expectations, social influences, and facilitation conditions (Piarna et al., 2020).

There are numerous journals that have discussed UTAUT, and it is interesting to note that in some journals there is a positive relationship between performance expectations and behavior intention (Aprilisa & Samsuryadi, 2020; Dewi et al., 2020), whereas research by (Fatihanisya & Purnamasari, 2021; Piarna et al., 2020) indicates that performance expectations do not affect behavior intention.

In research on the factor of effort expectations, a positive correlation between effort expectations and behavior intention was also discovered (Dewi et al., 2020). Nevertheless, research (Aprilisa & Samsuryadi, 2020; Fatihanisya & Purnamasari, 2021; Piarna et al., 2020) indicates that effort expectations have no effect on behavior intention. This study analyze the effects of performance expectation, effort expectation, social influences, and facility conditions on behavioral intentions and use behavior.

1.2 Describe Relevant Scholarship

Unified theory of Access and Use of Technology (UTAUT)
According to Venkatesh et al in (Dewi et al., 2020) one of the most comprehensive ideas that can help explain and forecast whether or not new technologies will be adopted is the unified theory of acceptance and use of technology. The UTAUT model is a combination of 8 theoretical models of user acceptance of technology (Ridhwan & Purwanto, 2020). The UTAUT model itself is considered successful than the other eight theory, this is because UTAUT can explain up to 70 percent of intention variance (Ridhwan & Purwanto, 2020). According to the UTAUT model, performance expectations, effort expectations, social influence, and facility condition are the key four influencers on an individual's adoption of new technology. (Piarna et al., 2020).

Performance Expectations
The degree to which a person believes that using technology (the internet) would enable him to make a profit from his buying activities is known as performance expectations. In this situation, consumers believe that using the internet for shopping will be advantageous and allow them to

save money, time, and effort while also receiving more effective service. (Piarna et al., 2020). Performance expectations can also be seen as an extrinsic motivational factor that indicates user expectations for performance following use of a new technology or system against use of an existing one (Dewi et al., 2020). The following are indicators of performance expectations according to (Piarna et al., 2020):

1. Internet for online shopping is very useful for everyday life
2. The ability to purchase online speeds up the purchasing process for consumers.
3. Consumer productivity is increased when they shop online.

Effort Expectations
Effort expectation is the ease of using something with an indication that the user will be happy to adapt to the new thing (Krismadinata et al., 2019). Effort expectations can also be interpreted as the expectation that users can use the technology so that it can reduce the effort (time and energy) of the users (Fatihanisya & Purnamasari, 2021). In addition, effort expectations can be interpreted as the level of convenience associated with the use of the system that is felt by the user when using the system or technology. The following are indicators of business expectations according to (Piarna et al., 2020)

1. Shopping online is easy to learn
2. The interaction procedure when shopping online is simple.
3. Customers find it simple to shop online using the internet.

Social Influence
The degree to which a person believes that others think they should use the new method is known as social influence. (Doan, 2020). In this scenario, When consumers in the outside world have a positive opinion of online purchasing, this can encourage people to shop online. The term "social impact" can also be used to describe peer pressure from the outside world that shapes people's opinions and actions (Piarna et al., 2020). Social influence is appropriate for use in analyzing consumer intentions and behavior with regard to online shopping because consumers can interact with one another and with product sellers. As a result, they can be influenced by other consumers who share and communicate information about products with one another (Dewi et al., 2020). The following are indicators of social influence according to (Piarna et al., 2020):

1. A good friend recommends shopping via the internet or online
2. Neighbors recommend shopping via the internet or online
3. Peers recommend shopping via the internet or online

Facility Condition
The degree to which someone thinks there is a technological and organizational infrastructure to support system users is referred to as the facility condition (Doan, 2020). In addition, the condition of the facility can be interpreted as a person's belief in the completeness of the facility so that this is believed to influence someone to accept or refuse to use an innovation (Krismadinata et al., 2019). An example of a facility condition is whether the device for opening

an online buying trading site is available or not, such as a mobile phone or computer (Fatihanisya & Purnamasari, 2021). The following are indicators of facility condition according to (Piarna et al., 2020):

1. Resources needed to shop online
2. Knowledge for online shopping
3. Friends or groups who want to help shop online.

Behavioral Intention

In the context of information technology, behavioral intention refers to a person's intention to use a technology system or the availability to utilize or recommend the technology to others. Behavioral intention is defined as the possibility that someone will carry out or conduct particular behaviors (Dewi et al., 2020; Krismadinata et al., 2019). The following are indicators of behavioral intention according to (Piarna et al., 2020):

1. Willingness to use the internet for online shopping in the future

2. Using the internet to shop regularly

3. Desire to shop online everyday

4. Planning to use the internet to shop online online

Use Behavior

Use behavior is defined as the user's feeling whether the feeling is positive or negative when using a system (Ridhwan & Purwanto, 2020). In addition, usage behavior can be defined as how often users use the technology(Mizal & Wijayangka, 2020). Indicators of usage behavior according to (Piarna et al., 2020) are

1. Habit of using the internet to shop online
2. Whenever you want to shop, you want to use the internet to shop online
3. Using the internet to shop online anywhere

2. Method

2.1 Research Model and Hypotheses

The research method that will be used in this research is research using quantitative methods. According to (Jayusman & Shavab, 2020) the quantitative method approach is an approach that uses lift, starting from data collection, interpretation of the data obtained, to the results of the appearance of the processed data. This research will use UTAUT model as seen in Fig. 1. Based on Fig. 1, this research proposes hypotheses as follows:

H1: Performance Expectations has a significant influence on Behavioral Intention

H2: Effort Expectations has a significant influence on Behavioral Intention

H3: Sosial Influence has a significant influence on Behavioral Intention

H4: Facility Condition has a significant influence on Behavioral Intention

H5: Facility Condition has a significant influence on Use Behavior

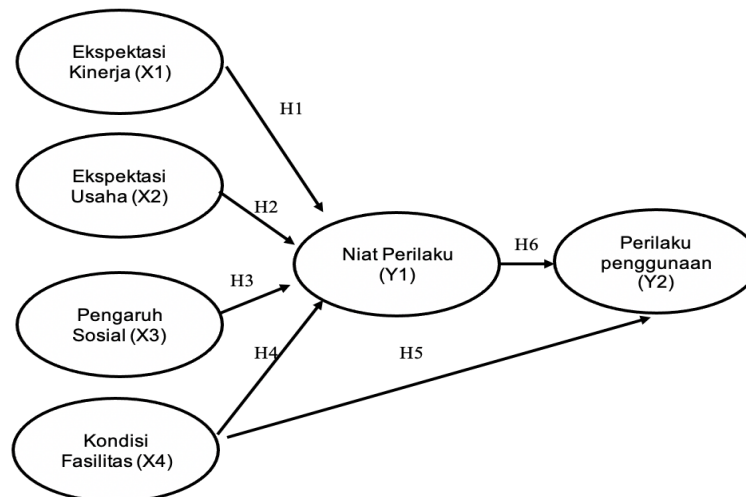H6: Behavioral Intention has a significant influence on Use Behavior

Fig. 1 Research Model

2.2 Population and Sample

Non-probability sampling technique is a sampling technique that does not provide equal opportunities or opportunities for each population to be sampled in their research (Fitria & Ariva, 2018). The choice of non-probability sampling technique is because the number of population in this study cannot be determined in advance, this makes researchers decide to use non-probability sampling techniques in their research (Pekelitian, 1990). The way of collecting data in this research is by using purposive sampling method. The purposive sampling method is a sampling technique by providing decisive considerations in this study, the determining considerations are solo residents and have made online purchases of baby products (Chan et al., 2019). By using the hair sample calculation method, where the determination of the number of samples is the number of indicators multiplied by 5 to 10 times (Febriana et al., 2021). The number of indicators in this study is 19, so the sample that needs to be searched is 95 respondents.

2.3. Outer Model

Outer Model is a model to test construct validity and instrument reliability. Validity is used to understand the ability of research instruments and measure what things need to be investigated in research, the construct validity test consists of 2 tests, namely the convergent validity test and the discriminant validity test (Setiawan & Setyawati, 2020).

2.4. Validity Test and Reliability Test

The convergent validity test has 2 parameters, namely the loading factor and average variance extracted (AVE), to be valid, the loading factor must have a value greater than 0.70 and an AVE value greater than 0.50. As for the discriminant validity test using cross loading, to be valid the cross loading value must be greater than 0.70 in one variable.

Reliability test is a useful test to determine the consistency of measuring instruments that use questionnaires. The reliability test must have a value below Cronbach Alpha > 0.70 so it can be said to be reliable (Setiawan and Setyawati, 2020). Another reliability test by looking at the composite reliability value (> 0.7), it shows a good value (Aprilisa & Samsuryadi, 2020).

2.5. Inner Model

The value of R2 is a measure of the level of influence of the independent variable to the dependent so that the higher R2, the greater the influence of the independent variable to the dependent in the study (Setiawan & Setyawati, 2020).

To determine the degree of influence the independent variable has on the dependent variable, the F square test is beneficial.

t statistic for the significance test between constructs. a good t-statistic value is greater than 1.96, this shows that the relationship between path variables is significant (Setiawan & Setyawati, 2020).

3. Results

3.1. Reliability and Validity

Table 1. Reliability and Validity

Variabel	Item	Loading	*AVE*	Composite Reliability	Cronbach's Alpha
Performance Expectation (X_1)	$X_{1.1}$	0,834	0,675	0,862	0,761
	$X_{1.2}$	0,796			
	$X_{1.3}$	0,834			
Effort Expectations ($X_{2.}$)	$X_{2.1}$	0,846	0,633	0,838	0,712
	$X_{2.2}$	0,769			
	$X_{2.3}$	0,769			
Social Influence (X_3)	$X_{3.1}$	0,809	0,706	0,878	0,792
	$X_{3.2}$	0,792			
	$X_{3.3}$	0,808			
Facility Condition (X_4)	$X_{4.1}$	0,833	0,655	0,883	0,824
	$X_{4.2}$	0,818			
	$X_{4.3}$	0,868			
Behavioral Intention (Y_1)	$Y_{1.1}$	0,851	0,645	0,845	0,725
	$Y_{1.2}$	0,797			
	$Y_{1.3}$	0,819			
	$Y_{1.4}$	0,768			
Use Behavior (Y_2)	$Y_{2.1}$	0,879	0,746	0,898	0,831
	$Y_{2.2}$	0,846			
	$Y_{2.3}$	0,864			

The results of the Convergent Validity Test are accepted, this is because the outer loading value is > 0.7, besides the AVE value is > 0.5. From these two tests, we can see that every statement in the questionnaire can be said to be valid. The results of the discriminant validity test are accepted, this is because the cross loading value is > 0.70, so it can be said that every statement passes the discriminant validity test.

The results of the reliability test are accepted, this is because composite reliability > 0.7, besides that the Cronchbach's alpha value is > 0.70 so it can be said that all variables are reliable.

Table II. Descriminant Validity

	PE	EE	FC	BI	SI	UB
PE	**0.821**					
EE	0.443	**0.796**				
FC	0.459	0.427	**0.840**			
BI	0.443	0.444	0.732	**0.809**		
SI	0.409	0.462	0.554	0.595	**0.803**	
UB	0.547	0.581	0.643	0.662	0.602	**0.864**

Table II shows the square root AVE results in bold and the correlation coefficient for each variable. By comparing the value of the square root of AVE to the value of the correlation between variables, the constructs in this study meet the criteria for discriminant validity. The constructs in this study's reliability and validity testing were evaluated according to criteria so that further structural model testing could be conducted.

3.2. Hypotheses Test

Table III. R Square

	R Square	R Square Adjusted
Behavioral Intention	0,597	0,579
Use Behavior	0,492	0,481

The behavioral intention variable (Y1) has an R square value of 0.579. It follows that the variables of performance expectations, effort expectations, social influences, and facility circumstances contributed 57.9% to the behavioral intention to purchase baby products in the city of Solo. The remaining 42.1% will be influenced by other variables or factors. Meanwhile, the use behavior variable (Y2) has a figure of 48.1%. This shows that the variables of performance expectations, effort expectations, social influences, facility conditions and behavioral intentions have an effect of 48.1% and the remaining 51.9% is influenced by other variables or factors outside the study.

Table IV. F square

	Behavioral Intention	Use Behavior
Performance Expactation	-0,008	
Effort Expectation	-0,010	
Social Influence	0,084	
Facility Condition	0,444	0,106
Behavioral Intention		0,155

Table IV. show the result of f squre test. From this table we can see that the most influenced behavioral intention is the facility condition variable, this is because from the results of the f square test the value of the facility condition variable has the largest number, namely 0.444, followed by the social influence variable with a number of 0.084. Meanwhile, the variable that most influences use behavior is the behavioral intention variable with a number of 0.155, followed by the facility condition variable with a number of 0.106.

Table V. Path Coefficients

Path	Original Sample	Sample Mean	Standard Deviation	t-Statistic	P-Values
PE -> BI	0.066	0.096	0.119	0.553	0.581
EE -> BI	0,076	0,107	0.129	0.590	0.555
FC -> BI	0.540	0.495	0.180	2.992	0.003
FC -> UB	0.341	0.332	0.160	2.133	0.033
BI -> UB	0.412	0.427	0.188	2.189	0.029
SI -> UB	0.233	0.241	0.098	2.386	0.017

The performance expectation variable (X1) and effort expectation (X2) have a t-statistic value < 1.96, this makes these two variables insignificant, but on the social influence variable (X3), facility conditions (X4), behavioral intention (Y1) and usage behavior (Y2), has a t-statistic > 1.96, so it can be said to be significant.

In this study, H1 and H2 were rejected due to p-values > 0.05. While the hypothesis H3, H4, H5 and H6 are accepted, because the p-values <0.05.

4. Conclusion

In order to determine whether there is any influence between these variables, the goal of this study was to examine the hypothesized effects between latent variables. The research reveals that:

First, performance expectations do not affect the behavioral intention of shopping for baby products in the city of Solo. The findings of this study are consistent with studies conducted by (Piarna et al., 2020), this is due to the millennial generation's current perception of the internet, which is that it is easily available and offers a better experience. As a result, completing online transactions is no longer problematic in online trading. (Piarna et al., 2020). Because millennials

make up the majority of the study's respondents compared to other generations, it may be concluded that performance expectations have little bearing on behavioral intentions.

Second, effort expectations do not affect the behavioral intention of shopping for baby products in the city of Solo. The findings of this study are consistent with studies conducted by (Aprilisa & Samsuryadi, 2020; Fatihanisya & Purnamasari, 2021; Piarna et al., 2020) this is due to the millennial generation's present perception that the internet is easily available and offers a better experience; as a result, trading no longer faces difficulties when doing online transactions (Piarna et al., 2020). Because millennials make up the majority of the study's respondents compared to other generations, it may be concluded that performance expectations have little bearing on behavioral intentions.

Third, social influences encourage behavioral intentions to buy baby products online. The outcomes of this study are consistent with studies made by (Dewi et al., 2020; Fatihanisya & Purnamasari, 2021). This is because of the cultural trends that exist in Indonesia, when Indonesian consumers plan to shop online they will receive reviews, support and suggestions from family members, so that they can influence the decision to shop online (Dewi et al., 2020).

Fourth, facility condition encourages behavioral intentions to buy baby products online. The outcomes of this study are consistent with studies made by (Aprilisa & Samsuryadi, 2020). This is due to the fact that if the necessary internet infrastructure, expertise, and societal acceptance exist, then the behavior meant to adopt the internet for online shopping will increase.

Fifth, facility condition can encourage the behavior of using the internet to buy baby products online. The findings of this study are consistent with studies conducted by (Fatihanisya & Purnamasari, 2021; Piarna et al., 2020). Our research found that respondents in this study had access to the necessary technological and human resources (such as mobile devices, the internet, the know-how to use it, and encouraging peer networks), which gave them more confidence to complete a transaction through the online channel.

Sixth, behavioral intentions to buy products online can encourage internet use behavior to buy baby products online. The findings of this study are consistent with studies conducted by (Giandi et al., 2020; Piarna et al., 2020). This considerable and positive influence suggests that the Indonesian populace continues to favor the existence of a market (especially for the purchase of baby products)(Giandi et al., 2020).

5, Suggestion for Further Research
1. Research can add moderation in the form of gender, age, experience and volunteerism to use.
2. Research can be carried out in a larger scope, it can be in the scope of the province so that the results of the research can be broader.
3. Research can be carried out using qualitative descriptive research methods so that it can find out in depth the reasons that influence behavioral intentions and behavior in using online shopping for baby products.

In this study, the researcher realized that there were limitations such as limited space, this research only took data from the people of the city of Solo, this made the results obtained only

apply to the city of Solo, besides that because the questionnaire was distributed online, the researchers did not can see directly the seriousness of the respondents in filling out the answers to the questionnaire.

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