



# Analysis of Chat Application Acceptance as a Means of Communication and Discussion of Schools and Parents on the Learning Process at School

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**Abstract.** Education in Indonesia continues to run during the Covid-19 pandemic. During the pandemic, learning was carried out online. The success of online learning during the pandemic is supported by interactions between the school (teachers) and parents. The form of interaction in question is communication and two-way discussion, namely from teachers and parents regarding the academic development of students. Communication services that developed during the pandemic and became a means of communication, used chat applications. Chat application is a communication service facility equipped with the ability to send messages in the form of text, images, videos, voice and send files in real time on the internet network. The social interaction that occurs between teachers and parents is in the form of communication. Communication is a reciprocal activity that occurs between two or more humans/people to exchange information. The kinds of chat applications commonly used by the general public include WhatsApp, telegram, hangouts, WeChat and many others. The chat application is used by the school in communicating with parents who directly monitor learning activities at home. Making of models with some variable that's built to analyse and understand the factors that influence the acceptance of the use of computer technology, among them, reference is made to various literature records, TAM computer research results, etc. Correlation of those variables of the TAM method, namely Perceived Ease of Use, Perceived Usefulness, Attitude Toward of, Behavioural Intention of, and Actual Usage of shows that the relationship that affects each other between these variables is perceived ease of use towards perceived usefulness with an effect of 0.620.

**Keywords:** Chat apps · Communication · Discussion · Parents · TAM

## 1 Introduction

The Covid-19 pandemic has implemented a policy of keeping social distances or more appropriately implemented in Indonesia as a physical distance in order to minimize the spread of Covid-19. Therefore, this policy aims to delay the spread of the coronavirus in the community. The Ministry of Education, Culture, Sports, Science and Technology

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has responded with a policy of studying online at home, and this year's national examination has been abolished. As social beings, during the Covid-19 pandemic, teachers and parents still need each other, including related to the development of student learning. The social interaction that occurs between teachers and parents is in the form of communication. Communication is a reciprocal activity that occurs between two or more humans/people to exchange information [1] as well as the school, namely teachers also need to communicate and discuss actively with parents in order to support the success of learning in the network (Online).

The kinds of chat applications commonly used by the general public include WhatsApp, telegram, hangouts, WeChat and many others. The chat application is used by the school in communicating with parents who directly monitor learning activities at home. During the pandemic period from 2020 to 2022, the use of chat applications as a communication medium is increasingly used. This is because the chat application available today is equipped with features that make it easier for every individual including the school and parents to use it. Chat applications provide an experience to users with the presence of text messages, voice messages, voice calls, video calls and sending files.

## **2 Literature Review**

### **2.1 Chat Apps**

Chat application is a communication service facility that has the ability to send short and real-time messages over the internet network. Communication services with chat applications these days are growing very rapidly [2].

Chat applications can allow users to exchange information by sending messages in the form of text to other users. In addition to exchanging information, chat applications can also be used to exchange files. Chat application is a long-distance communication tool that has a very fast transmission speed. Chat applications can also be defined as a technology that makes it easier for users in the network to send short messages directly at the same time as the form of writing, images, or files/files to other users who are also connected to the same network [3].

### **2.2 School**

Schools are tiered and continuous education units for carrying out teaching and learning activities [4]. School is also a system in which there is social reciprocal action of an agency/institution as a whole in an organic relationship [5] besides that school can also be interpreted as a standing building where there are main activities, namely learning and teaching [6]. One part of the entire proceedings, and not as an independent document. Please do not revise any of the current designations.

Based on several definitions and understandings of schools that have been described above, it can be concluded that schools are the essence of formal education where activities in which there are activities in reading, writing the process of guidance, teaching, and training processes for students in order to develop various abilities possessed by students such as moral, spiritual, intellectual, emotional and social aspects. School as a place to cultivate the personality of students so that students have good behavior in society.

### 2.3 Parents/Guardian

Parent is a term for the person in charge of a child's education at an educational institution. A student's guardian can mean a parent or a sibling. Parents are the designations of the father and mother of a child. Meanwhile, a sibling may be a person older than the child who is appointed to represent/replace the position of the parent of a child for some reason. Based on the brief explanation above, it can be interpreted that a parent or sibling appointed to represent the parents is someone who is responsible for all areas of children's lives for which they are responsible for the child to become an adult human being who behaves better.

The parents must cooperate with the school, especially with the teachers. By communicating and discussing with teachers, parents can find out their child's development both related to their child's academic progress and decline or about the child's attitudes and behaviors while in the educational environment [7, 8].

### 2.4 Online Learning

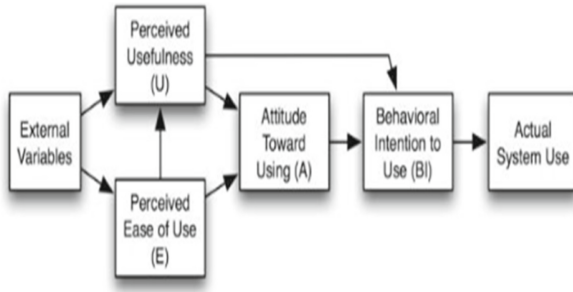
Learning is an activity to change student behavior patterns towards a positive and better direction according to student potential [9]. Learning can also be interpreted as a reciprocal process between students and educators and learning resources in the learning environment. Learning will run well if all components support each other, teachers as facilitators and students as learning subjects. The quality of learning also needs to be improved in order to create active and effective and fun learning. Good learning is learning that has ideal learning objectives so that students are able to realize effective attitudes/behaviors [10].

Online Learning is learning that is carried out using the internet or its term in a network where educators and students do not meet face to face in person [11]. Online learning can be understood as formal education organized by educational institutions whose students and educators are in separate locations and are connected by interactive telecommunications devices and various resources needed in them [12].

### 2.5 Communication

Communication is a reciprocal process that occurs between two or more humans/people to exchange information, besides that communication can also affect humans/other people both attitudes, behaviors and thoughts through perceptions expressed [13]. Communication can be said to be a skill in conveying information, opinions, important thoughts from a communicator so that the communicant understands and responds well [14] At this time the development of communication technology supported by the development of information technology can affect the delivery of messages.

Based on the understanding of communication above, it can be concluded that communication is a process of switching/turning messages from the communicator to the communicant through a channel and producing an impact.



**Fig. 1.** Technology Acceptance Model (TAM).

## 2.6 Technology Acceptance Model (TAM)

A few models built to analyze and get it the variables that impact the acknowledgment of the utilize of computer innovation, among which those recorded in different writing and references to investigate comes about within the field of data innovation are such as the TAM Show. TAM demonstrates created by Davis F. D is one of the foremost broadly utilized models in IT inquire about. The TAM show was really embraced from the TRA demonstrate planned to clarify human behavior and comprises of two components that impact behavioral eagerly, states of mind towards behavior and subjective standards [15].

TAM consists of two constructions, namely perceived ease of use and perceived usefulness, which determines a person's behavioral intention to use a technology. Intense behavior is a measure of how much a person desires to perform a certain action [16]. This model more clearly illustrates that the acceptance of IT use is influenced by expediency and ease of use. Both have high determinants and empirically tested validity. Meanwhile, TAM also divides two factors on the benefit variable, namely: expediency and effectiveness with each of its own dimensions, and shows the results of the study that there are indications that the work outcome variables are influenced by the use of microcomputers and the attitudes of computer users are influenced by expediency and ease of use [17]. Schematically the TAM theory is illustrated in Fig. 1.

### 2.6.1 Perceived Usefulness

Portrays a person's level of believe that the utilize of the framework will progress his execution. Individuals utilize data innovation since they have certainty that accomplishments and execution will increment. This concept portrays a degree by which the utilize of a innovation is accepted to bring benefits to the wearer.

### 2.6.2 Perceived Ease of Use

Explains one's confidence that information systems are easy to use and require little effort from the user. This convenience reduces the energy, mind, and time spent researching and using information systems. People who use information systems are easier to work with than people who work manually without information systems. Awareness of the ease of

use of technology is defined as a level of belief that computers are easy to understand and use [18].

### **2.6.3 Attitude Towards Use**

With this variable show of response to both pleasant and unpleasant conditions on a particular object. Theoretically, an attitude reflected of a person's feelings for an object in good or bad conditions, beneficial or detrimental. Attitudes show on this variable because a person has a value determined by belief in the object. In other conditions, with kind of behaviors can also influence a person's new beliefs, bringing about changes in attitudes.

### **2.6.4 Behavior**

Individual has the purposeful or want to do or the deliberate of carrying on will decide his behavior. Behavioral purposeful may be a persons crave to perform a certain behavior or a person's propensity to proceed utilizing certain advances. The level of utilize of a person's innovation can be anticipated from his state of mind of consideration to the application.

### **2.6.5 Behavior is Actual Usage**

Technology itself or the real conditions of use of information systems. Actual behavior or usage is difficult to observe and measure through a list of questions. The results of the TAM study showed that the use of information systems can be predicted properly by using behavioral intention variables [19].

## **2.7 Research Variables**

A inquire about variable is an quality or characteristic or esteem of a individual, protest or movement that has certain varieties that are set to be examined and drawn conclusions [20–22]. There are a few sorts of this inquire about variable, he said, as takes after: (1) Dependent Variables: A subordinate variable could be a variable whose esteem depends on another variable, whose esteem will alter in case the variable influencing it changes. These factors are frequently alluded to as yield factors, criteria, consequents. In SEM, the subordinate variable is alluded to as the endogenous variable (Y), (2) Independent Variables: Autonomous Factors These factors are frequently alluded to as boost factors, indicators, antecedents' free factors are factors that influence or that are the cause of their alter or the onset of subordinate factors. In SEM, autonomous factors are alluded to as exogenous factors (X).

## **2.8 Data Collection Methods**

Questionnaires are a data collection technique that allows analysts to learn the attitudes, beliefs, behaviors, and characteristics of several important people in the organization. The goal is to obtain information relevant to the problem and research objectives and to obtain information with high reliability and validity.

**Table 1.** Likert scale.

	Description of The Intensity of Approval In The Questionnaire				
Number	1	2	3	4	5
Information	Very Agreeable	Agree	Usual	Disagree	Highly Disagreed

## 2.9 Validity Test

Validity tests are carried out to assess how well an instrument or measurement process is of the expected concept to find out whether what we ask in the questionnaire is in accordance with the concept. The data is said to be valid if the indicator score of each question correlates significantly to the total score of the construct. Validity test results are carried out for each of the indicators. The validity of the instrument if  $r$  counts is greater than  $r$  the table. The basis for decision making,  $r$  calculate  $> r$  table then valid. The scale used to measure the results of the questionnaire on respondents' perceptions of indicators is the Likert Scale, which contains five levels of preference for answers with answer choices. The scale to be used is shown in Table 1.

## 2.10 Reliability Test

Cronbach's Alpha was utilized to degree the unwavering quality of the markers utilized within the research questionnaire. Reliability test could be a test that's carried out to degree whether a survey is truly an marker that measures a variable. A survey is said to be solid on the off chance that a person's answers are consistent over time. Unwavering quality in this consider was tried with Cronbach's Alpha strategy with the assistance of SPSS. The information is said to be dependable on the off chance that Cronbach's Alpha esteem  $> 0.6$  [21].

## 3 Research Methodology

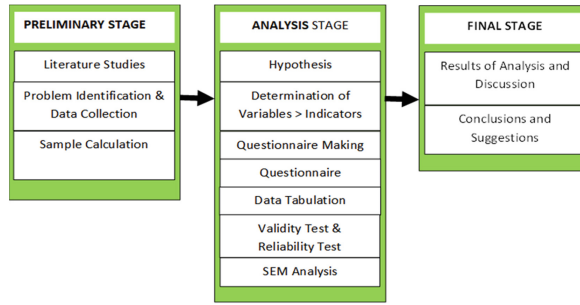
The system implementation and evaluation method carried out in this study was carried outline several stages as shown in Fig. 2.

### 3.1 Preliminary Stage

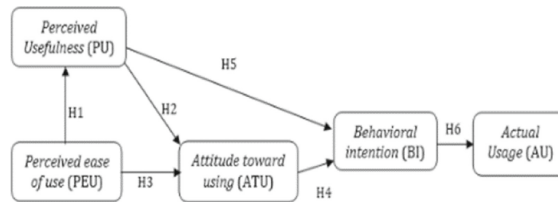
The preliminary stage consists of three processes, namely literature study of problem identification and data collection and sample calculation.

### 3.2 Analysis Stage

This study used a descriptive research method. Descriptive research can be carried out quantitatively so that further statistical analysis will be carried out. This analysis stage will be carried out conceptual model studies, determination of variables and indicators, making questionnaires, disseminating questionnaires, validity and reliability tests,



**Fig. 2.** Research methodology.



**Fig. 3.** Research model of user acceptance rate of chat applications using TAM.

linarity tests and data analysis using the help of SPSS (Statistical Product and Service Solution) and AMOS (Analysis of Moment Structure) tools. The first step in the analysis stage is as follows:

Based on the research model of the level of user acceptance of the chat application as shown in Fig. 3, the hipotesis that will be tested in this study is as follows: (1) H1: Perceived Ease of Use positively affects perceived usefulness on the use of chat applications by schools and students, (2) H2: Perceived Usefulness positively affects attitude towards using chat applications by schools and parents, (3) H3: Perceived Ease of Use affects attitude towards using in the use of chat applications by schools and parents, (4) H4: Attitude Towards Using has a positive effect on Behavioral Intention on the use of chat applications by schools and parents, (5) H5: Perceived Usefulness positively affects behavioral intentions for the use of chat applications by schools and parents, (6) H6 behavioral Intention affects the Actual System Usage of chat applications by schools and parents.

### 3.3 Determination of Variables and Indicators

The variables used in the study consisted of exogenous variables as well as endogenous variables. The Perceived Ease of Use variable is an exogenous variable of research consisting of three indicators, namely: flexibility, easy to learn and understand, and easy to use. The variable included in the endogenous variable in the study is Perceived Usefulness which consists of indicators of increasing the effectiveness of the work done, improving performance, and increasing efficiency. Actual System Usage consists of real

**Table 2.** Variable and indicator

Constructs	Indicator
Perceived Ease of Use (PEU)	X1 = Ease of learning
	X2 = Easy to understand/understand
	X3 = Easy so proficient
	X4 = Easy to use
	X5 = Easy to control
	X6 = Easy to remember
Perceived Usefulness (PU)	Y1 = Faster
	Y2 = Improves performance
	Y3 = Increase productivity
	Y4 = Increase effectiveness
	Y5 = Easier
	Y6 = helpful
Attitude Toward Using (ATU)	Y7 = Feeling good
	Y8 = Enjoy
	Y9 = Unlike
	Y10 = Feeling Bored
Behavioral Intention (BI)	Y11 = Using any time
	Y12 = Using any condition
	Y13 = Intention to use
	Y14 = hope to use
	Y15 = Motivation to Use
Actual Usage Of	Y16 = Frequently
	Y17 = use time of learning
	Y18 = Minimal time

usage indicators, and frequency of use. Variables and indicators of construction can be seen in Table 2.

### 3.4 Questionnaire Making

Based on the variables and indicators that have been determined, then make a questionnaire according to the indicators that have been determined. The questionnaire was created using a google form. Determination of the answer measurement scale on the questionnaire using a Likert scale. The answers to each item of the questionnaire are arranged from a gradation of strongly agree, agree, disagree, and strongly disagree.



### **3.5 The Spread of Questionnaire**

The next step after the process of making the questionnaire is the distribution of the questionnaire to the predetermined respondents, namely the school and the parents of students who are in the cities of Surabaya and Sidoarjo.

### **3.6 Data Tabulation**

Tabulation is the creation of a table containing data that has been coded according to the required analysis. In this assessment, the questionnaires that have been returned by the respondents will be tabulated using Microsoft Excel software.

### **3.7 Validity Test and Reliability Test**

Validity and reliability tests are carried out to show the extent to which a measuring device measures what is measured and show the extent to which a measuring device is trustworthy or reliable. If the data is valid and reliable, then the research can be continued. Reliability and validity analysis using SPSS. The validity test is measured when  $r$  counts greater than  $r$  table. The basis of decision making,  $r$  calculate  $>$   $r$  table then the variable is said to be valid  $r$  calculate  $<$   $r$  table then the variable is invalid. As for the reliability test in this study, it was tested with the Cronbach's Alpha method with the help of SPSS software. Cronbach's alpha is used to measure the reliability of the indicators used in research questionnaires. Data if Cronbach's Alpha value is above 0.7 then it is considered sufficiently good and reliable. When it is not valid and not reliable, the research process cannot be continued to the next stage. To overcome this we can do cleansing or delete some data that has invalid and unreliable results.

### **3.8 SEM Analysis**

The data analysis technique uses the Structural Equation Modelling (SEM) method. The structural analysis process using the software used is Smart PLS. The research instruments used have passed the validity test and reliability test using the SPSS tool. Then the data will be processed through an application by passing one type of classical assumption test, namely the linearity test.

## **4 Results**

In this section, the validity and reliability tests will be discussed questionnaire and hypothesis testing results from research on chat application acceptance analysis using the PLS (Partial Least Square) analysis method.

**Table 3.** Validity result test perceived ease of use

Item	rx <sub>xy</sub>	r <sub>Table</sub>	Valid/Unvalid
X1	0.438	0.113	Valid
X2	0.491	0.113	Valid
X3	0.343	0.113	Valid
X4	0.471	0.113	Valid
X5	0.425	0.113	Valid
X6	0.417	0.113	Valid

**Table 4.** Validity result test perceived usefulness

Item	rx <sub>xy</sub>	r <sub>Table</sub>	Valid/Unvalid
Y1	0.675	0.113	Valid
Y2	0.691	0.113	Valid
Y3	0.667	0.113	Valid
Y4	0.566	0.113	Valid
Y5	0.574	0.113	Valid
Y6	0.536	0.113	Valid

### 4.1 Questionnaire Validity Test

The validity of the test is done by doing a correlation between the score of the question item and the total score of the variable. To see the validity seen in the *corrected Item correlation* column, if the value of r in that column > r table then the item/variable is valid. In the questionnaire sample for validity testing, the minimum number for validity testing was used, namely 312 respondents, to search in the table r using the formula:

$$df = N - 2 \tag{1}$$

df = degree of freedom

N = Number of respondents

based on the table r, then the value of df = 312 - 2, so that df = 310, then r table on this questionnaire is worth 0.113. The moment correlation formula, also known as Pearson’s correlation, can be used to calculate the validity of an instrument. In this study, the results of the validation of the device or questionnaire are shown in Tables 3, 4, 5, and 6:

### 4.2 Questionnaire Reliability Test

Reliability is a tool for measuring a questionnaire that is an indicator of modifiers or constructs. Based on that’s construct the high and low reliability of the, empirically represented by a number called the reliability coefficient value (Table 7).

**Table 5.** Validity result test attitude

Item	rx <sub>y</sub>	r <sub>Table</sub>	Valid/Unvalid
Y7	0.675	0.113	Valid
Y8	0.691	0.113	Valid
Y9	0.667	0.113	Valid
Y10	0.566	0.113	Valid

**Table 6.** Validity test result behavioral intention

Item	rx <sub>y</sub>	r <sub>Table</sub>	Valid/Unvalid
Y11	0.597	0.113	Valid
Y12	0.715	0.113	Valid
Y13	0.682	0.113	Valid
Y14	0.676	0.113	Valid
Y15	0.656	0.113	Valid

**Table 7.** Validity test result actual usage

Item	R <sub>xy</sub>	r <sub>Table</sub>	Valid/Unvalid
Y16	0.540	0.113	Valid
Y17	0.096	0.113	Unvalid
Y18	0.097	0.113	Unvalid

**Table 8.** Questionnaire reliability test result

Cronbach's Alpha	N Of Item
0.915	24

When the result is indicated of high reliability of the is indicated by arxx value close to 1. The general convention is that the reliability as considered. With point of satisfactory is 0.700. We test the reliability using the Alpha Cronbach's formula, in the form of a questionnaire anda scale. The reliability of statements in a questionnaire consisting of 2statements is shown in Table 8.

Based on the value of Cronbach's Alpha, a value of 0.915 is obtained. So it can be concluded that the variables of the statement are Reliable/Consistent.

### 4.3 Management of Survey Results

After testing the validity and reliability of the questionnaire using SPSS *software*, the next step that will be done is to test the data using the SEM method which is assisted by *SmartPLS software*.

#### 4.3.1 Measurement Model Testing

A measurement model is an entanglement of relationships between manifest variables or indicators and latent variables that form a pattern. When testing the validity and reliability of a measurement model, the survey data should first be tested with some statistical parameters such as: The validity indicator can be found from a load factor value greater than 0.50. The stress factor can also be read from a higher correlation, indicating that it is more relevant. If the result of the correlation value is greater than 0.50, you can verify the correlation. If any indicator has a value less than 0,50 is removed and repeated again. Table 9 shows the results of the PLS algorithm test for stressors in this study.

To produce this result, test was repeated once by eliminating indicators that have a value of less than 0.5. When if *the loading factor* meets the requirements, the measurement model will be tested to next stage.

#### 4.3.2 Composite Reliability, Cronbach Alpha and Average Variance Extracted (AVE)

Data reliability is a test used to demonstrate the accuracy of equipment in measurement structures. In this theory there are two ways to measure construct reliability, Cronbach's alpha is greater than 0.70 and composite reliability is also greater than 0.70 or commonly called Dillon Goldstein. Table 10 shows the composite reliability and Cronbach's alpha, Dan AVE and R2 values.

**Table 9.** Loading factor

Correlation of Indicators with Variables	Loading Factor
	Iteration 1
<i>Perceived Usefulness (PU)</i>	
PU → PU1.1	0,739
PU → PU1.2	0,750
PU → PU1.3	0,735
PU → PU1.4	0,635
PU → PU1.5	0,625
PU → PU1.6	0,654

(continued)

**Table 9.** (continued)

Correlation of Indicators with Variables	Loading Factor
	Iteration 1
<i>Perceived Ease of Use (PEU)</i>	
PEU P → EU1.1	0,626
PEU P → EU1.2	0,620
PEU P → EU1.3	0,486
PEU P → EU1.4	0,655
PEU P → EU1.5	0,560
PEU P → EU1.6	0,576
<i>Attitude Toward Using (ATO)</i>	
ATO → ATO1.1	0,653
ATO → ATO1.2	0,625
ATO → ATO1.3	0,781
ATO → ATO1.4	0,682
<i>Behavioral Intention (BIO)</i>	
BIO → BIO1.1	0,667
BIO → BIO1.2	0,774
BIO → BIO1.3	0,717
BIO → BIO1.4	0,750
BIO → BIO1.5	0,702
BIO → BIO1.6	0,689
BIO → BIO1.7	0,752
<i>Actual Usage of (AUO)</i>	
AUO → AUO1.1	1

### 4.3.3 Structural Model Evaluation

Path Coefficient Value: This test determines the effectiveness or ineffectiveness of one variable and from another the SmartPLS use to evaluated of the bootstrap report. Meaning  $p\text{-value} = 0.05$ ,  $p\text{-value} < 0 > 0.05$  means no effect (Table 11).

Value of statistics is had the meaning that result of statistical tests it's depend of indicators and their variables. Significant value can be reached if the value of statistics must be greater than the value of T table. T table on the data processing of respondents accepting chat applications as implies of communication and discussion between schools and guardians is 1.66. So that statistics can be declared significant if the value is more than 1.66 (Table 12).

**Table 10.** Composite reliability, cronbach’s alpha

Variable	AVE	Composite Reliability	Cronbach’s Alpha
AUO	1,000	1,000	1,000
ATO	0,473	0,781	0,625
BIO	0,522	0,884	0,847
PEU	0,348	0,760	0,624
PU	0,478	0,845	0,780

**Table 11.** P-Value on each line

Path Diagram	<i>Path Coefficient</i>	<i>P-Value</i>	Description
ATO → BIO	0,343	$1.08 \times 10^{-12}$	Influence
BIO → AUO	0,449	$5.7 \times 10^{-14}$	Influence
PEU → ATO	0,176	0,001	Influence
PEU → PU	0,619	$5.7 \times 10^{-14}$	Influence
PU → ATO	0,555	$5.7 \times 10^{-14}$	Influence
PU → BIO	0,563	$5.7 \times 10^{-14}$	Influence

**Table 12.** Statistical t-values

Path Diagram	<i>Path Coefficient</i>	T Statistics	Description
ATO → BIO	0,343	7,357	Significant
BIO → AUO	0,449	11,338	Significant
PEU → ATO	0,176	3,256	Significant
PEU → PU	0,619	16,850	Significant
PU → ATO	0,555	10,567	Significant
PU → BIO	0,563	12,258	Significant

Rated R-Square ( $R^2$ ): Using this test is intended to measure the effect of an independent latent variable on alaten variable that’s dependent on it. R2 values can be divided into three categories:

1. 0.67 (Strong)
2. 0.33 (Medium)
3. 0.19 (Weak).

**Table 13.** R square values

Variable	R Square
AUO	0,201
ATO	0,459
BIO	0,690
PU	0,383

**Table 14.** Effect size

Variable	Effect Size Value	Criterion
ATO → BIO	0,212	Medium
BIO → AUO	0,252	Medium
PEU → ATO	0,252	Medium
PEU → PU	0,620	Big
PU → ATO	0,352	Big
PU → BIO	0,572	Big

Based on the results in the table above, it is known that there are five variables that produce  $R^2$ , namely the variable AUO of 0.201, variable ATO of 0.459, variable BIO of 0.690 and the PU variable is 0.383 (Table 13).

Effect Size Value ( $f^2$ ): Considering the effect of extrinsic latent contractions on the presence or absence of the model,  $f^2$  effect size assessments can be used to further inform the results of  $f^2$  values. The effect size criteria ( $f^2$ ) can be divided into three categories: 0.02 (small), 0.15 (medium), and 0.35 (large) (Table 14).

The model must be validated as a whole by requiring the value of goodness of fit (Gof). Goodness of Fit is a single method used to validate the combined measurement model and structural model. There are three categories of GoF scores are 0.1 (small), 0.25 (moderate), 0.36 (large). With the following formula:

$$GoF = \sqrt{\overline{Com} \times \overline{R^2}} \quad (2)$$

$$GoF = \sqrt{0.564 \times 0.433} = 0.494(\text{big GoF})$$

#### 4.4 Hypothesis Test

H1: Perceived Ease of Use (PEU) affects Perceived Usefulness (PU)

Based on the results of the structural model evaluation, the PEU variable affects the PU variable (PEU → PU) resulting in a  $p$ -value:  $5.7 \times 10^{-14}$  T-statistic 16,850, and *path*

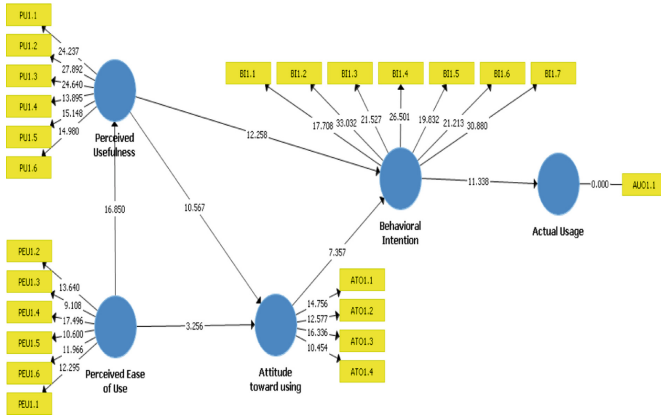


Fig. 4. Hypothesis test results.

coefficient 0.619. This shows that there is a positive and significant influence between the influence of *Perceived Ease of Use* on *Perceived Usefulness*. So, this hypothesis ( $H_1$ ) is accepted (Fig. 4).

H2: Perceived Usefulness (PU) affects Attitude Toward Using (ATO)

Based on the results of the evaluation of the structural model, the PU variable affects the ATO variable (PU → ATO) resulting in a *p-value*:  $5.7 \times 10^{-14}$  T-statistics 10.567, and the *path coefficient* 0.555. This shows that there is a positive and significant influence between the influence of *Perceived Usefulness* on *Attitude Toward Using*. So, this hypothesis ( $H_2$ ) is accepted.

H3: Perceived Ease of Use (PEU) affects Attitude Toward Using (ATO)

Based on the results of the evaluation of the structural model, the PEU variable affects the ATO variable (PEU → ATO) resulting in a *p-value*: 0.001 T-statistic 3.256, and *path coefficient* 0.176. This shows that a positive and significant influence between the influence of *Perceived Ease of Use* on *Attitude Toward Using*. So, with this hypothesis ( $H_3$ ) is accepted.

H4: Attitude Toward Using (ATO) affects Behavioral Intention (BIO)

Based on the results of the evaluation of the structural model, the variable ATO affects the Variable Bio (ATO → BIO) resulting in a *p-value*:  $1.08 \times 10^{-12}$  T-statistic 7.357, and *path coefficient* 0.343. This shows that a positive and significant influence between the influence of *Attitude Toward Using* on *Behavioral Intention*. With this result hypothesis ( $H_4$ ) is accepted.

H5: Perceived Usefulness (PU) affects Behavioral Intention (BIO)



Based on the results of the structural model evaluation, the PU variable affects the BIO variable (PU → BIO) resulting in a *p-value*:  $5.7 \times 10^{-14}$  T-statistics 12.258, and *path coefficient* 0.563. This suggests that there is a positive and significant influence between the influence of *Perceived Usefulness* on *Behavioral Intention*. With this result hypothesis (H<sub>5</sub>) is accepted.

H6: Behavioral Intention(BIO) affects Actual Usage (ATO)

Based on the results of the structural model evaluation, the BIO variable affects the AUO variable (BIO → AUO) resulting in a *p-value*:  $5.7 \times 10^{-14}$  T-statistics 11.338, and *path coefficient* 0.449. This shows that there is a positive and significant influence between the influence of *Behavioral Intention* on *Actual Usage*. With this result hypothesis (H<sub>6</sub>) is accepted.

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