ANALYSIS OF THE USE OF THE TYPING MASTER APPLICATION IN STUDENTS OF OFFICE ADMINISTRATION EDUCATION AT THE STATE UNIVERSITY OF SURABAYA USING TAM

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Abstract
This research is focused on users typing master in students in the Office Administration Education Study Program at State University of Surabaya to analyze how the influence of subjective norms, perceived ease of use and perceived usefulness on intentions to use behavior. This study uses quantitative research method with primary data analysis techniques using a questionnaire that is taken to the respondents. Data analysis method using Partial Least Square (PLS) managed using SmartPLs 3.0 software. The results show that subjective norms have a positive and significant effect on usage behavior intention, perceived ease of use have a positive and insignificant effect on usage behavior intentions, perceived usefulness have a positive and significant effect on usage behavior intentions and perceived ease of use have a positive and significant effect on usage behavior intentions through perceived usefulness.

I. INTRODUCTION
Currently, the development of technology and information is growing rapidly and influencing various fields, one of which is the field of education. The existence of advances in technological development has made a good contribution to education where the development of technology is able to make it easier for educators and students when they carry out teaching and learning activities. [1]. The acceptance of a system or technology is highly dependent on the readiness of the user to take advantage of the technology. The attitudes of these users have an impact on the success or failure of the implementation of an information system. Attitude is a form of evaluation of the overall concept that is carried out for the user. Evaluation can be obtained from the affective system in the form of emotions, feelings, moods as well as immediate and direct responses to certain impulsivity.

Attitudes are in the form of interest in using applications, liking for applications, pleasure in using applications and belief in the benefits of applications used by users. However, interest, liking, happiness and positive customer confidence can lead to user intentions in using the application [2]. An information system is considered successful if the information system can be accepted by users well. One way to find out whether a technology is accepted or not is to use the TAM (Technology Acceptance Model). The reason why researchers use TAM is that TAM can provide strong and simple reasons for the acceptance of an information technology [3].

TAM was first discovered by Davis (1989) who tried to understand how someone can accept or not an information technology. TAM itself is often used when researching consumer action in Indonesia, including when it comes to deepening E-learning, customer perceptions, learning in information systems, the use of information technology such as internet banking and other mobile internet [4]. TAM can provide a basis in finding out a cause from external factors to the trust, attitude, and purpose of the wearer. On the other hand, it is formed from a strong theoretical basis. One of the advantages of other TAM techniques is that it can answer several questions from various technology systems failing to be implemented. This is due to users having no intention of using them.

TAM has several factors in the development of its model, some of which are perceived ease to use referring to the user's understanding of simplicity in understanding and using systems or technology. Perceived ease to use directly impacts behavioral intention of use because the more users believe that a system or technology is easy to understand and easy to use, the higher the behavioral intention of use [5]. Pramanda & Azizah (2016) added that not only in terms of perceived ease to use which can have an impact on behavioral intention of use, but also in terms of perceived usefulness in the use of technology, the more users think that technology is useful, the more they want to use this technology.

The use of information technology today has a huge impact on the world of education. Current demands in the world of education make education
increasingly follow technological advances to increase the quality of education, especially adjustments to the use of information and communication technology, especially when the learning process is increasingly developing in today’s globalized era, which has an inevitable impact on the world of education. The existence of technological developments over time has been able to create several applications supporting the learning process.

The world of learning today is greatly helped by the fast pace of technology, as for the many developments in this technology its function is to make it easy for those using it. This opinion is supported by research conducted by Laksana (2015) that technology provides perceived ease (perceived ease to use). Unesa is one of the State Universities in Surabaya utilizing computer technology in its learning activities. In modern times, many applications are used to support the learning process, one of which is the master typing application. Typing master is a typing software program providing typing tutorials using 10 blind fingers.

Unesa is one of the state universities that uses the typing master application during the teaching and learning process in typing courses for students majoring in economics in the office administration education program. In office administration education, the 10 finger typing skill is one of the abilities that must be mastered for students in the office administration expertise program. With modern typing equipment using a computer, typing activity will be better. However, the problem is how a person is able to type correctly, quickly and efficiently. People think that typing with two fingers is sufficient, but typing using two fingers cannot be assessed as typing correctly, quickly and efficiently [8]. In English, typing ten fingers is termed "touch typing", meaning typing without using the eye senses when looking for the expected keyboard keys [9].

Typing has become a routine activity for every human being. The people working in parts directly correlated with computers, on a day-to-day basis are confirmed to be correlated with keyboard keys on a computer or typewriter. However, in fact not everyone can type using 10 fingers, but only using 2 fingers so that the typing job is not optimal. For this reason, it is necessary to learn or train yourself to be able to type using 10 blind fingers, with one application that supports it, by using a master typing application.

The use of computer-based learning models assisted by master typing media can be used as an alternative to improve the blind 10 finger typing skills for students, on the standard 10 finger typing competency and can help improve learning outcomes for students majoring in office administration [10].

Learning to type using a master typing application makes students easy to use and provides benefits without being bored and continues to increase typing speed by using 10 blind fingers. Typing master also encourages students to pay attention to suitability when typing because the output can detect the accuracy and speed of typing [11].

This opinion is strengthened by research conducted by Ap et al., (2013) stating that using the typing master application in computer-based learning techniques can help and make it easy for students to learn to type appropriately in accordance with the application theory of 10 blind fingers. The existence of a master typing program makes typing skills increase, in typing using 10 blind fingers, especially training techniques and increasing speed in typing [13]. Based on the explanation above, the purpose of this study is to analyze the influence of subjective norms, perceived ease to use, perceived usefulness and behavioral intention of use in the use of the typing master application to students in the office administration education program at the University of Surabaya using TAM.

II. LITERATURE REVIEW

2.1 Typing Master

Typing master is an application program that can be used to practice the speed and compatibility of typing when using 10 fingers equipped with instructions and various kinds of games from each session so that it makes a reliable typist [11].

Typing master is a software tool or game that has very good benefits. That's because it is able to practice typing 10 blind fingers without looking at the keyboard. In addition, the benefits of typing master are that you can learn how to type using a touch on the keyboard, make typing easier and smoother like speaking, enable you to tackle typing tasks with new levels of efficiency, minimize enough time when compiling reports, emails and presentations effectively [13].

Typing master has an attraction that can motivate students to learn to type. Students are happy to take part in learning to type by typing master. The nervous and reflex movements of the students when typing by typing master become trained, with the features of typing master. This helps students in learning to type so that they can increase the typing ability of the blind 10 finger system and learning outcomes for students [9].

Master typing application software can increase user interest during the learning process. Maximizing the master typing application program can increase the concentration of users when learning to type 10 fingers and increase typing speed [9]. By using a typing master application to practice typing 10 blind fingers, this is able to make additional value for students while maximizing the obligations in the world of work today where typing
skills are widely implemented in all parts of activities in the workplace [12].

The typing master application has a display that does not make users bored in learning to type 10 fingers, where the typing master application is available like a game that has levels in each session, the levels from the easiest to the most difficult ones [9]. We are likened to playing a game but indirectly we can also practice typing using 10 fingers. This makes students motivated to continue learning to use the typing master application.

The master typing application program is an application program specifically created to practice typing skills. The master typing application software has a feature that can check the speed and accuracy or suitability of the user's typing. In addition, the progress of student achievement from beginning to end learning can also be controlled [9].

Typing master provides 4 training course features to choose from. First is the touch typing course, which is the stage where you will learn the correct position of your fingers on each word and the punctuation buttons commonly used on the keyboard. The second is the launch satellite, which is a form of training to find out the speed and accuracy of typing in the first session. The third is the speed building course, which this session was created to add confidence as well as speed typing with typing techniques will be focused on the keys for each finger, typing with longer text and learning to use common words. The fourth is, number, special mark, and numeric keypad course. In this session, we will learn how to type numbers on line number [11].

This master typing application comes with instructions in the application. Users just follow the existing rules. At the beginning, the user will learn to place fingers in the correct keyboard so that they can type using 10 blind fingers. After that the user can try typing practice with 10 fingers with the questions provided. When finished working on a given problem, users can see the results of the work such as typing accuracy and speed [11].

2.2 TAM (Technology Acceptance Model)

In 1989, TAM was first introduced by Fred D. Davis, which was an adjustment of the theory of reason action (TRA) improved by Fishbein and Ajzen starting from the theory of relevant attitudes and actions, sorting between beliefs and attitudes, and choosing impulsivity external [14]. TAM is one type of theory employing behavioral theory often used when researching the stages of information technology adjustment. TAM is believed and has been considered by researchers that TAM is most useful in predicting user acceptance of information technology. As a result, it is proven to be applicable in predicting and explaining the behavioral intention of users to adopt and use information technology [15].

TAM is used by some researchers in research on technology acceptance although in different studies, such as research on the use of online academic systems [16], mobile banking [17], library information systems [18], online shopping [4] online kkn systems [1], and others.

TAM is a method designed to analyze and understand the causes affecting the acceptance of a technology use [3]. TAM is a suitable method which not only predicts, but is able to provide an explanation. The TAM technique and its indicators have been proven to measure technological achievements. With that, TAM users can explain the reasons the master typing application can be accepted or rejected for users [18].

It is the same as the meaning of TAM, if "A" stands for "Acceptance" it means acceptance. Until it can be stated that TAM is a model used to analyze in finding out what users will do about the acceptance of a technology. TAM provides a foundation when it comes to knowing the impact of external causes on user's beliefs, attitudes, and goals. On the other hand, created by a strong theoretical foundation, one of the advantages of TAM is that it can answer questions from various technological systems that in reality fail to be implemented. This is caused by users who do not have the intention to use it [18].

The aim of this TAM model is to explain the root causes of user action for technology acceptance. In more detail, it explains about the acceptance of technology with certain parts that can influence the acquisition of something technology for users. The TAM model can explain the users' perceptions when determining their attitudes when using technology. There is an assumption arising from research passing through the stages of the relationship of reviewing, hearing, touching, feeling and obtaining a matter then selected, organized and implemented into something that has meaning [7].

The TAM model implies that the acceptance of technology use is based on usefulness and ease of use. This study uses 4 (four) constructs modified from previous TAM research techniques, namely subjective norms, perceived ease to use, perceived usefulness and behavioral intention of use. [1].

2.3 Subjective Norms (Norma Subyektif)

Subjective norms are social influences influencing a person to behave. A person will have a desire for an object or behavior if influenced by the people around him to do or believe that the environment or people around him support what is done [19].

On the other hand, belief in behavior and evaluation will determine behavior. Normative beliefs and motivation to follow other people's opinions will determine subjective norms. The theory of subjective attitudes and norms is also
called the theory of reasoned action introduced by Fishbein and Ajzen [19].

Sarjanawiyata et al., (2018) also define that subjective norms is actions often based on other people's perceptions of what to do. Subjective norms are an individual's opinion about the opinions of other people (people who are important to that individual) in order to carry out certain actions or not. Subjective norms are based on the social pressure experienced to carry out or not carry out the action.

Fishbein and Ajzen (2010) define subjective norms as individual perceptions about the opinions of others (people who are important to that individual) in order to carry out certain actions or not. Subjective norms come from the social pressure experienced to carry out or not carry out these actions [14]. Subjective norms are also defined as a person's perception based on the influence of the closest people (family or close friends) or the assumption of the extent to which the surrounding environment has a moderate impact on doing or not doing, agreeing or disagreeing with an action to be carried out, until it can be something passionate or not for that individual [21].

2.4 Perceived Ease to Use

Perceived ease of use is the extent to which a person believes if when using something technology does not require maximum effort, it means that it is easy to use [7]. The assumption of ease of use is defined as the extent to which a person believes that if he uses something technology will be free from effort. The results of research conducted by Davis (1989) show that the perception of convenience can interpret the causes of users when using a system and are based on benchmarks that prospective users are waiting for a new system to be used free of distress [22].

The assumption of ease is also interpreted as the user's perception of ease of use where ease means without difficulty or not needing to work hard. The assumption of convenience refers to the individual's confidence that the technology system used is not troublesome and does not require a lot of effort when used [23]. Based on the above understanding, it is intended that when the user believes that the system is easy to use, it can minimize the user's time and effort when completing a task.

2.5 Perceived Usefulness

Perceived usefulness is defined as a person's belief in the benefits that arise in him or her as a result of using a technology [7]. Davis (1989) defines that perceived usefulness is the level of one's confidence in using a technology to improve job performance. Perception of usefulness is also defined as the usability of a technology so that if the usefulness of a technology is in doubt, there will be no intention of someone to use it [22]. This shows that users believe that using a technology or system will improve its performance. This illustrates the benefits of the system from its use in relation to various aspects. In the perception of usefulness, it forms a belief in decision making whether the user uses the information system or not. If the user believes that the system is useful then he will use it, but on the other hand, if the user does not believe that the system is useless then he will not use it [18].

2.6 Behavioral Intention Of Us

Behavioral intention of use is a behavioral intention to show how much effort is made by an individual to commit to carrying out an action. The size of a bond implies the implementation of the action [19]. The degree of use of a computer technology for application users can be estimated through an attitude of concern for a technology, such as a desire to increase support, enthusiasm to continue to use, and a desire to increase the enthusiasm of other users [14]. Someone will carry out an action (behavior) if they have curiosity or interest (behavioral intention) to carry it out. Interest can also be an indication of carrying out an action in the future and repeating it on the next day [22].

Behavioral intention of use can also be interpreted as the tendency of someone's actions to keep using something technology. The level of technology use can be seen through a person's behavior towards their attitudes, for example, the desire to continue to use it and the desire to be motivated [16]. Heriyanti et al., (2013) also define behavioral intention of use is a person's tendency to choose to do or not do a job. This intention is determined by the extent to which the individual has a positive attitude towards a particular behavior and the extent to which he chooses to do this behavior has the support of people who are influential in his life.

III. HYPOTHESIS AND RESEARCH METHODS

3.1. Hypothesis Formulation

3.1.1. The Influence of Subjective Norms on Behavioral Intention Of Use

Subjective norms have an important effect on user behavior to keep using. With a supportive environmental condition, the greater the support, the more significant or more influential it is on the user's desire to continue using [21]. However, if the individual feels it is his personal right to do or not do it, not based on other people or people around him, then he will ignore people's views about the behavior he will do [2].

With the theory explained, it is lowered to be the first hypothesis as follows:
H1: Subjective norms have a positive and significant effect on behavioral intention of use.

3.1.2. Effect of Perceived Ease to Use on Behavioral Intention of Use

In using a technology, the easier it is to use, the more direct it will affect the user's behavioral intention to use it. The ease with which the system is used greatly affects the user in using it. This means that the more users believe that a system or technology is easy to understand and use, the higher the user's intention to continue using it [24].

An interest in a person's behavior in the use of something information technology is based on the ease with which it is obtained when using it [7]. This means that perceived ease to use is a major factor in influencing interest in use. This can happen because users feel that the system is easy to use, so this perception encourages users to be interested in using it [1].

With the theory explained, the third hypothesis is derived as follows:
H2: Perceived Ease to Use has a positive and significant effect on behavioral intention of use.

3.1.3. Effect of Perceived Usefulness on Behavioral Intention of Use

The benefit of the use of information technology can be seen from the trust of information technology users when deciding the acceptance of information technology, where the trust occurs when the use of information technology has a positive impact on the user [25].

Perceived usefulness has a positive relationship where the greater the benefits felt, the more desire to continue to use [26]. With the theory explained, the third hypothesis is derived as follows:
H3: Perceived usefulness has a positive and significant effect on behavioral intention of use.

3.1.4. Effect of Perceived Ease to use on Behavioral Intention of Use through Perceived Usefulness

With the benefits and convenience felt by users in the form of the benefit that using this system can help users to make it easier to use the typing master application, it makes users intend to continue using this technology [27]. Both causes are extrinsic supporting causes based on reciprocity or the achievement of a target. A person will have a behavioral intention for a technology if it has perceived usefulness and perceived ease to use for the technology [22]. With the theory explained, the fourth hypothesis is derived as follows:
H4: Perceived ease to use has a positive and significant effect on behavioral intention of use through perceived usefulness.

3.2. Research Methods

This research is conducted at one of the state universities in the city of Surabaya, the University of Surabaya in the Department of Economics education in the Office Administration Education Study Program. The reason for choosing to do research at UNESA is because UNESA is one of the state universities in Surabaya using the typing master application in the process of teaching and learning activities in typing courses in the Office Administration Education Study Program.

This study uses a quantitative approach to data collection methods using a questionnaire. The data source of this research is obtained from primary data, data obtained directly from respondents. The population in this study are students of the 2017 UNESA Office Administration Education Study Program, totaling 96 students. Because the population is 96 students and this number is not a large number, this number is used as a sample. However, from the number of samples, the data that could be processed are only 62 students due to the large number of damaged data. The sampling technique used in this study is non-probability sampling with census techniques.

3.2.1. Operational Definition of Variables

The variable used in this study is subjective norms. Subjective norms, is the extent to which consumers have the motivation to follow other people's views on a behavior that they will do. Variable subjective norms is measured by 4 indicators, namely: family, friends, colleagues, and the environment that can influence behavior [2].

The second variable is perceived ease to use which can be interpreted as a statement regarding the user's perception of the ease or difficulty of using the system. Perceived ease to use variables are measured by 6 (six) indicators, namely: easy to learn, clear and easy to understand, information systems that are flexible, easy to access, easy to control, and proficient for users [18].

The third variable is perceived usefulness which is a statement regarding user perceptions of the usefulness of information systems as measured by 6 (six) indicators, speeding up work, increasing task effectiveness, getting the information needed, improving performance, having overall usefulness and making work easier (18).]

The fourth variable is behavioral intention of use, which is an intention of user behavior in using information systems, so that it becomes a behavioral tendency to continue using the system. This is called the acceptance phase, because the user shows an acceptance of the system user. The existence of positive intentions from users in using a system can be believed to move users in using the system. The level of use of information systems on users can be predicted from the attitude of attention to the system by the existence of a kind of motivation in using and the desire to motivate other users. This includes
several aspects, including cognitive or the point of view of interest in information systems, affective with user statements to use information systems, components related to behavior where there is a desire to continue to use existing information systems [18].

3.2.2. Validity and Reliability Test

The validity test is used to measure whether a questionnaire is valid or not. The questionnaire is said to be valid if the statement in the questionnaire is able to reveal something that will be measured by the questionnaire [19]. The validity test is carried out to find out how well an instrument measures the concept or what it should be measured. The construct validity test is testing by determining the quality of the information instrument by looking at the loading factor value on each question item. A valid research instrument is required to have a loading factor value of more than 0.5 [28]. Meanwhile, reliability testing uses the Cronbach's alpha method, where one questionnaire is considered reliable if Cronbach's alpha is > 0.6 [28].

3.2.3. Analysis Technique

The analysis used in this research is descriptive statistical analysis and inferential statistical analysis. Descriptive statistical analysis is used to describe the characteristics of the respondents to be studied and each variable in the form of the number of respondents and the percentage figure. Meanwhile, inference statistical analysis is used to determine the level of strong or weak influence between the independent variables and the dependent variable which is the effect of causality. The analytical tool used is to use PLS (Partial Least Square) with the processing using SmartPLS 3.0 software. This PLS has two model specifications, the inner model and the outer model. Inner model (structural model) describes a model of the relationship between latent variables formed based on the theory substance [29]. The inner model is evaluated using the R-square for the dependent construct, the stone-geisser q-square test for predictive relevance and the t test and the significance of the structural path parameter coefficients. This inner model is used to test the research hypothesis where the t-statistic value > 1,960 indicates that the effect between variables is significant [30].

### Table 1 Inner Model Criteria

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between endogenous latent variables</td>
<td>R2 is good (0.67)</td>
</tr>
<tr>
<td></td>
<td>R2 is moderate (0.33)</td>
</tr>
<tr>
<td></td>
<td>R2 is weak (0.19)</td>
</tr>
<tr>
<td>Effect size</td>
<td>The bigger F2, the bigger the effect</td>
</tr>
<tr>
<td>Prediction relevance</td>
<td>Q2 is getting closer to 1, so the model can predict</td>
</tr>
</tbody>
</table>

Source: Urbach & Ahlemann (2014)

Evaluating the outer model or measurement model using convergent validity. Convergent validity will measure the reflective model of the indicator which is assessed according to the correlation between the item score or component score with the construct score. Meanwhile, the discriminant validity of the measurement model with reflective indicators is assessed according to the cross-loading measurement with the construct or using other techniques by looking for a comparison of the results of the square root of average variance extracted (AVE). Next, composite reliability is assessed by 2 (two) measures, internal consistency and Cronbach's alpha [31].

### Table 2 Outer Model Criteria

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convergent validity, Loading factor, Average variance extracted (AVE)</td>
<td>Outer loading ≥ 0,50</td>
</tr>
<tr>
<td>Discriminant validity, AVE</td>
<td>Root &gt; Correlation between variables</td>
</tr>
<tr>
<td>Reliability test, Composite reliability</td>
<td>≥ 0,50</td>
</tr>
</tbody>
</table>

Source: Urbach & Ahlemann (2014)

Hypothesis testing is carried out using the loading factor by reviewing the results of the Critical Ration (CR) (t count) with the t table provided that if CR > t table with p ≤ 0.005 is significant. However, if CR < t table with p ≥ 0.005 then it is not significant. This hypothesis testing can be carried out with t-statistics, when t value > t table. Thus, if the value of the engineering test is significant, it means that there is an impact among the latent variables [30].

IV. ANALYSIS AND DISCUSSION

4.1. Overview of Respondents

Respondents of this study are users of the typing master application in one of the State Universities in Surabaya, Surabaya State University in students of the Department of Economic Education, 2017 Office Administration Education, totaling 96 students. Based on the questionnaire, the characteristics of the research respondents are obtained based on the age dominated by 20-23 years old. Based on gender, they are dominated by women, as much as 93.7 percent. Based on the length of time using the master typing application, the duration is dominated by 3 months - a year as much as 60.3 percent.

4.2. Results of the Measurement Model (Outer Model)

Evaluation of measurement models is a process aiming to evaluate the validity and reliability of
constructs. In measuring the outer model, it has three criteria: convergent validity, discriminant validity, and composite reliability.

4.3. Convergent Validity
Convergent validity aims to determine the validity of each relationship between indicators and latent variables. Convergent variables from the measurement model with reflective indicators are assessed according to the correlation between the item scores or the component score with the latent variable score or the construct score calculated by PLS. The value of convergent validity is said to be valid if the measurement scale of the loading factor value is \( \geq 0.50 \) (Urbach & Ahlemann, 2010).

In table 3, it can be seen that all the loading factor values of the subjective norms indicator (X1), perceived ease to use (X2), perceived usefulness (Z), and behavioral intention of use (Y) \( \geq 0.50 \) and the t-statistic value above 1.960 or having a p-value below 0.05, thus a conclusion can be made if each indicator can be declared valid and significant when measuring its construct.

4.4. Discriminant Validity
Discriminant validity with a reflective indicator measurement model can be seen from the cross loading measurement with the construct. The indicator can be said to be valid if the intended cross loading value is greater than the cross loading value of other constructs [32]. The model has good discriminant validity if each cross loading value of each latent variable indicator has the greatest cross loading results with other cross loading results against other latent variables [31].

<table>
<thead>
<tr>
<th>Variable</th>
<th>Subjective Norms</th>
<th>Perceived Ease to Use</th>
<th>Perceived Usefulness</th>
<th>Behavioral Intention of Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1_1</td>
<td>0.787</td>
<td>0.377</td>
<td>0.403</td>
<td>0.485</td>
</tr>
<tr>
<td>X1_2</td>
<td>0.784</td>
<td>0.501</td>
<td>0.387</td>
<td>0.527</td>
</tr>
<tr>
<td>X1_3</td>
<td>0.767</td>
<td>0.571</td>
<td>0.519</td>
<td>0.554</td>
</tr>
<tr>
<td>X1_4</td>
<td>0.757</td>
<td>0.590</td>
<td>0.552</td>
<td>0.562</td>
</tr>
<tr>
<td>X1_5</td>
<td>0.523</td>
<td>0.760</td>
<td>0.539</td>
<td>0.632</td>
</tr>
<tr>
<td>X2_1</td>
<td>0.547</td>
<td>0.908</td>
<td>0.743</td>
<td>0.668</td>
</tr>
<tr>
<td>X2_2</td>
<td>0.456</td>
<td>0.872</td>
<td>0.645</td>
<td>0.528</td>
</tr>
<tr>
<td>X2_3</td>
<td>0.614</td>
<td>0.736</td>
<td>0.590</td>
<td>0.580</td>
</tr>
<tr>
<td>X2_4</td>
<td>0.594</td>
<td>0.817</td>
<td>0.702</td>
<td>0.575</td>
</tr>
<tr>
<td>Y_1</td>
<td>0.653</td>
<td>0.724</td>
<td>0.649</td>
<td>0.814</td>
</tr>
<tr>
<td>Y_2</td>
<td>0.579</td>
<td>0.584</td>
<td>0.568</td>
<td>0.796</td>
</tr>
<tr>
<td>Y_3</td>
<td>0.488</td>
<td>0.576</td>
<td>0.558</td>
<td>0.797</td>
</tr>
<tr>
<td>Y_4</td>
<td>0.486</td>
<td>0.529</td>
<td>0.565</td>
<td>0.837</td>
</tr>
<tr>
<td>Y_5</td>
<td>0.522</td>
<td>0.454</td>
<td>0.540</td>
<td>0.747</td>
</tr>
<tr>
<td>Z_1</td>
<td>0.560</td>
<td>0.725</td>
<td>0.873</td>
<td>0.629</td>
</tr>
<tr>
<td>Z_2</td>
<td>0.281</td>
<td>0.558</td>
<td>0.706</td>
<td>0.522</td>
</tr>
<tr>
<td>Z_3</td>
<td>0.532</td>
<td>0.620</td>
<td>0.839</td>
<td>0.720</td>
</tr>
</tbody>
</table>

Table 3 Cross Loading Values

<table>
<thead>
<tr>
<th>Y</th>
<th>X2</th>
<th>Z1</th>
<th>Z2</th>
</tr>
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<tbody>
<tr>
<td>0.583</td>
<td>0.679</td>
<td>0.877</td>
<td>0.597</td>
</tr>
<tr>
<td>0.547</td>
<td>0.710</td>
<td>0.866</td>
<td>0.554</td>
</tr>
</tbody>
</table>

Source: Data processed, 2020

Based on the cross loading value in table 4 above, it can be seen if all the indicators composing the variables in this research have met discriminant validity because they have the largest outer loading results for the variables they form and not on other variables. Thus it can be concluded that all indicators in each variable in this study meet discriminant validity.

| Source: Data processed, 2020 |

Based on table 4, it shows that all values at the square root of AVE are higher than the correlation connecting one factor to another, so that it can be said to be fit [33]. Discriminant validity is defined in the research data. So it can be concluded that the measurement model shows acceptable psychometric properties and the analysis is continued [33].

4.5. Composite Reliability
Evaluation of the measurement model with the square root of average variance extracted is to compare the AVE root value with the correlation between constructs. If the root value of AVE is higher than the correlation value between constructs, then good discriminant validity is achieved. AVE value \( \geq 0.50 \) is highly recommended. Then, the next test in analyzing the outer model is to look at the latent variable construct reliability as measured by two criteria, composite reliability and cronbach's alpha. The construct is declared reliable if the composite reliability value and cronbach's alpha value> 0.60 [28].

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cronbach's Alpha</th>
<th>rho_ A</th>
<th>Composite Reliability</th>
<th>Average Variance Extracted (AVE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1</td>
<td>0.777</td>
<td>0.777</td>
<td>0.856</td>
<td>0.598</td>
</tr>
<tr>
<td>X2</td>
<td>0.877</td>
<td>0.883</td>
<td>0.911</td>
<td>0.674</td>
</tr>
<tr>
<td>Z</td>
<td>0.891</td>
<td>0.897</td>
<td>0.921</td>
<td>0.700</td>
</tr>
<tr>
<td>Y</td>
<td>0.858</td>
<td>0.864</td>
<td>0.898</td>
<td>0.638</td>
</tr>
</tbody>
</table>

Table 5 Goodness of Fit
From table 5, the AVE value for the 4 (four) constructs is greater than 0.50, so it can be concluded that the evaluation of the measurement model has good discriminant validity. And the composite reliability and Cronbach alpha values are above 0.60. So it can be concluded that the construct has good reliability [31].

4.6. Structural Model (Inner Model)

The structural model testing (Inner Model) aims to test the relationship between variables. There are several measures that can be used in SmartPLS 3.0 to test structural capital. This test is conducted to determine the predictive strength of structural capital. In SmartPLS, this value can be seen from the R-Square contained in the endogenous (dependent) variable. Predictive strength can be seen using the R-square criterion 0.67 strong 0.33 moderate: 0.19 weak [28].

![Figure 2. Inner Model](image)

Evaluation of the inner model or structural model is carried out using the R-square for the dependent construct, the stone-Geisser Q-square test for predictive relevance and the t-test and the significance of the structural path parameter coefficients. Changes in the R-square value can be used to assess the effect of certain independent latent variables on the latent variables whether they have a substantive effect [31].

Meanwhile, based on the Q-square, it can be measured by how good the observed value generated by the model and its parameter estimates. If the Q-square value is greater than 0 (zero) then it has a relevant predictive value, whereas if the Q-square value is smaller than 0 (zero) it can be said that the model has less relevant predictive value [31].

### Table 6 R-Square Value

<table>
<thead>
<tr>
<th>Variable</th>
<th>R-Square</th>
</tr>
</thead>
</table>

Table 6 shows that the R-square value for the behavioral intention of use (Y) variable is obtained at 0.646. The R-square value shows that 64.6 percent can be influenced by the subjective norms (X1) and perceived ease to use (X2) variables. As for the rest, it can be influenced by other variables outside of the research. The R-square value for the Perceived Usefulness (Z) variable is obtained at 0.623. This shows that 62.3 percent of perceived usefulness variables can be influenced by perceived ease to use (X2) and behavioral intention of use and the rest is influenced by other variables outside of research.

Whereas for the value of $Q^2 = 1 - (1-R^{22}) \times (1-R^{21}) (1-0.417) \times (1-0.388) (0.583) \times (0.612) 0.643$

The $Q^2$ value is 0.643, meaning that the amount of data diversity from the study can be explained by a structural model designed for 64.3 percent, and the remaining 35.7 percent is explained by other factors outside the model [31].

4.7. Hypothesis test

The PLS test statistically for each hypothesized relationship is done by using a simulation. In this case the bootstrapping method is carried out on the sample. Bootstrapping testing is also intended to minimize the PLS analysis as follows:

### Table 7 Path coefficient

<table>
<thead>
<tr>
<th>Variable</th>
<th>Original Sample (O)</th>
<th>Mean (M)</th>
<th>Standard Deviation (STDEV)</th>
<th>T Statistics (O STDEV)</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1 &lt; Y</td>
<td>0.321</td>
<td>0.328</td>
<td>0.114</td>
<td>2.817</td>
<td>0.005</td>
</tr>
<tr>
<td>X2 &lt; Y</td>
<td>0.253</td>
<td>0.275</td>
<td>0.158</td>
<td>1.600</td>
<td>0.000</td>
</tr>
<tr>
<td>Z &lt; Y</td>
<td>0.331</td>
<td>0.315</td>
<td>0.168</td>
<td>1.971</td>
<td>0.049</td>
</tr>
<tr>
<td>X3 &lt; Y</td>
<td>0.789</td>
<td>0.795</td>
<td>0.066</td>
<td>11.919</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Source: Data processed, 2020

1) The Influence of Subjective Norms on Behavioral Intention Of Use

Subjective norms have a positive and significant influence on behavioral intention of use. This is evidenced by the variable value of subjective norms on behavioral intention of use with a path coefficient of 0.321 and a t-statistic of 2.817. This value indicates that the t-count is greater than the t-table (1.960), and has a p-value of 0.005 $\geq$ 0.05. From the above results indicate that H1 is accepted, so subjective norms have a positive and significant effect on behavioral intention of use.
Based on these results, it shows that the variable subjective norms has a direct effect on the variable behavioral intention of use. This means that if the variable subjective norms is increased by one time, then the variable behavioral intention of use will increase by 32.1 percent. Based on the results of the research, UNESA students feel the usefulness of typing master so that UNESA students will continue to use it and recommend to their friends or people around them to use the typing master application as a 10 finger typing exercise.

The results of this study are supported by the existence of a theory of reason action (TRA) introduced by Fred D. Davis (1989) and corrected by Fishbein and Ajzen stating that it has been proven that there are important variables determining the user's intention to use technology and services. This variable is a subjective norm supporting behavioral intention of use. If the subjective norm tends to be good and the higher the user's confidence in using the service, it will be able to create the user's intention to use it [34]. So this supports the hypothesis that there is a positive and significant effect of variable subjective norms on behavioral intention of use.

The results of this study are supported by previous research conducted by Shabrina & Zaki (2019) stating that subjective norms have a positive and significant effect on behavioral intention of use. The success of an application depends on the user in using it. Therefore, with the condition of the surrounding environment, friends, family, and other people, this will increasingly affect the user to use it [25]. This statement is proven by the use of the master typing application at UNESA showing an increase by students because they are believed to be able to improve their typing skills.

The results of this study are also supported by research conducted by Rahadjeng & Fiandari, (2020) stating that there is a positive and significant influence among subjective norms on behavioral intention of use. This shows that the extent to which students have the motivation to follow suggestions from friends, the environment and the people around them to use typing master as an exercise in learning to type. This means that the higher the subjective norm, the higher the desire to use it.

2) Effect of Perceived Ease to Use on Behavioral Intention Of Use

Perceived ease to use memiliki pengaruh positif dan tidak signifikan ke behavioral intention of use. Nilai variabel perceived ease to use terhadap behavioral intention of use dengan koeisien jalur sejumlah 0,253 dan t-statistik sejumlah 1,600 Nilai itu menyimpulkan jika t-hitung lebih kecil daripada t-tabel (1,960), dan mempunyai hasil p-value sebesar 0,000 ≤ 0,005. Dari hasil statistik menunjukkan hipotesis (H2) ditolak, sehingga dapat dinyatakan bahwa perceived ease to use memiliki pengaruh positif dan tidak signifikan terhadap behavioral intention of use.

In Fred D. Davis (1989) theory, the variable perceived ease to use affects the user's intention to use a system. In the sense that if the user believes that the information system is easy to use so that it does not require hard effort and will be free from difficulties, the user will continue to use it. However, if the user does not find it easy to use, this includes the ease of using the information system not in accordance with the user's wishes, the user will have low intentions in using it [18].

So it can be concluded that the second hypothesis suspecting that there is a positive and insignificant influence between perceived ease to use on behavioral intention of use in the use of the application of typing master to students in the Office Administration Education Study Program at the State University of Surabaya is rejected. The implementation of the use of the typing master application for UNESA students has weaknesses in its application, where there are students who still do not understand its use. This happens because the guidelines are incomplete and unclear in their application.

The results of this study are strengthened through research conducted previously by El-Jafari et al., (2020) and Fahlevi & Dewi (2020) finding that perceived ease to use was not related to behavioral intention to use. The features in the Typing Master application are unclear and poorly understood by students and there are difficulties in understanding the fingering position on the keyboard making it difficult for students to remember it. This means that there is no convenience that is felt in students.

3) Effect of Perceived Usefulness on Behavioral Intention Of Use

Perceived usefulness has a positive and significant influence on behavioral intention of use. This is evidenced by the value of the variable perceived usefulness on behavioral intention of use with a path coefficient of 0.331 and a t-statistic of 1.971. This value concludes that if it is greater than the t-table (1,960), it also has a p-value of 0.049 ≥ 0.05. From the value above, it can be concluded that if H3 is accepted, then perceived usefulness has a positive and significant effect on behavioral intention of use. The results of this study indicate that students in Office Administration Education UNESA feel the benefits when using the typing master application to learn to type, so that students are motivated to learn to type even better.

In theory of reason action (TRA) introduced by Fred D. Davis (1989) states that "the degree to which a person believes that using a particular
system would enhance his or her job performance.” The meaning that if the user believes that using a certain technology system provides benefits for him, then the system can increase the user's performance and work performance [18]. The existence of the variable perceived usefulness can affect the intensity of technology use. With the increasing use of technology, there are benefits. The benefits felt by users can increase user interest in using [27]. So this supports the hypothesis of a positive and significant influence on the variable perceived usefulness on behavioral intention of use.

The results of this study are supported by research conducted previously by Pramanda & Azizah (2016) finding that perceived usefulness has a positive and significant effect on behavioral intention of use. The use of technology that is efficient, effective, and makes work more useful can affect the behavioral intention of use variable. This shows that the more users make use of information technology, the greater the usefulness that the user gets. This means that perceived usefulness has a big impact on user attitudes in using master typing applications [15].

The results of the study are also supported by research conducted by Aditya & Wardhana (2016), Shabrina & Zaki (2019), and Heriyanti et al., (2013) stating that perceived usefulness has a positive and significant effect on behavioral intention of use. This shows that the benefits felt by students have a positive effect so that it influences students to continue using the typing master application as a typing exercise.

The results of research conducted by Handayani & Saputera (2019) also state that there is a positive and significant effect of perceived usefulness on behavioral intention of use. The existence of typing master used to support the process of learning to type makes students more enthusiastic and focused on learning to type, students also do not get bored in typing courses. This is because there are games making students enthusiastic in practicing their typing skills. Students also feel the benefits obtained after using a typing master application, including their work or course assignments related to typing such as making papers, reports, and other assignments that can be completed more quickly.

4) Effect of Perceived Ease to Use through Perceived Usefulness on Behavioral Intention of Use

Perceived ease to use through perceived usefulness has a positive and significant effect on behavioral intention of use. This is evidenced by the variable value of perceived ease to use through perceived usefulness for behavioral intention of use with a path coefficient of 0.789 and a t-statistic of 11.919. This value shows that the t-count is greater than the t-table (1.960), and has a p-value of 0.000 ≥ 0.05. From the results above, it shows that H4 is accepted, so that perceived ease to use through perceived usefulness has a positive and significant effect on behavioral intention of use. The meaning that the higher the perceived ease to use through the perceived usefulness felt by students, the higher the behavioral intention of use in students.

Based on the results of the study, it is shown that when students feel that using the typing master is easy, but do not feel the benefits of using it, the student feel the desire to use it was low. Meanwhile, when the student feels that using master typing is easy and provides benefits when learning it, the student feels that he wants to study it harder. In the absence of perceived usefulness from the master typing application, perceived ease to use will not have a significant effect on increasing students' desire to use master typing applications. This means that it is as easy or as complicated as the application to use if you don't feel the benefits then the sense of wanting to use it is low, and vice versa.

Based on this, it is in accordance with the theory introduced by Fred D. Davis (1989) in the technology acceptance model (TAM) which is a model of user acceptance of the use of information technology systems which is a development of behavioral theories such as the theory of reasoned action (TRA) by Fishbein and Ajzen (1975) and theory of planned behavior (TPB) by Ajzen (1991). In this TAM model, there is a causal relationship between beliefs about the perceived usefulness of a technology and perceptions of its ease of use. These two factors are interrelated and influence and complement the use of a system so as to support this hypothesis [6].

The variable of perceived ease of use of the system through perceived usefulness greatly influences the user's intention to use a technology system [6]. The results of this study are supported by research conducted by El-Jafari et al., (2020) and Kinashi (2020) stating that perceived ease to use through perceived usefulness has a positive and significant effect on behavioral intention of use.

V. CLOSING

5.1. Conclusion

This study uses primary data, data collected directly from the field by distributing questionnaires to respondents. Respondents in this study are students in the Office Administration Education Study Program at the State University of Surabaya. This research is conducted to analyze the use of the typing master application in students in the Office Administration Education Study Program using TAM (Technology Acceptance Model).
Based on the results of data processing using partial least square (PLS), the following conclusions can be drawn:

1. Subjective norms have a positive and significant influence on behavioral intention of use in the use of the typing master application for students in the Office Administration Education Study Program at the State University of Surabaya. Subjective norms have an important influence on the success of a technology where the influence or motivation of friends, relatives, family and the surrounding environment that supports making users motivated or confident in using an application and other users will also consider the master typing application to use typing practice using 10 fingers. This makes application users increase and there is a desire to continue or continue to use (behavioral intention of use).

2. Perceived ease to use has a positive and insignificant influence on the behavioral intention of use in the use of the typing master application for students in the Office Administration Education Study Program at the State University of Surabaya. Ease of use is also an important factor in the success of technology. If the application is unclear in its use, users will think again about using it (behavioral intention of use).

3. Perceived usefulness has a positive and significant effect on behavioral intention of use in the use of the typing master application for students in the Office Administration Education Study Program at the State University of Surabaya. This factor is also important in the success of technology, where the more people feel about the master typing application, the more users will continue to use it.

4. Perceived ease to use has a positive and significant effect on behavioral intention of use through perceived usefulness in the use of the typing master application for students in the Office of Administration Education Study Program, State University of Surabaya. This shows that no matter how easy or difficult the application is, if you don't feel the big benefits, the desire to use it is low, and vice versa.

5.2. Research Limitations

As for this study, there are several limitations that are experienced and can be several factors that should be considered for future researchers in perfecting their research. This research certainly has shortcomings that need to be improved in the future. Some of the limitations in this study are:

1. In this study, the majority of respondents are women, so it would be better if the next study are to balance the number of respondents between women and men.

2. In this study, researchers used respondents to students in Office Administration Education for class 2017 using the typing master application in the process of teaching and learning activities.

3. In data collection, the information provided by respondents through questionnaires sometimes does not show the real opinion of the respondent. This occurs because of differences in thoughts, assumptions and different understandings in each respondent, and other factors such as the honesty factor in filling out the respondents' opinions in the questionnaire.

5.3. Suggestion

In this study, researcher provides suggestions for future researchers to take more samples. This aims for better data accuracy in the research. Researcher also hopes that there are additional variables that might affect many things in this study.

REFERENCE


