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# Understanding Users To Adopt Cloud Computing Technology

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***Abstract***

This research is entitled "Factors that influence users to adopt cloud computing technology" which aims to examine what factors influence users in adopting or using cloud computing. This study focuses on the variables of Security, Internet Connection Quality, Attitudes towards Use and also the two variables contained in the Technology Acceptance Model (TAM). This study takes a sample of users who have used cloud computing in Yogyakarta. Samples of respondents were taken using accidental sampling technique, from all available 150 questionnaires, which can be returned and processed as many as 116 samples. Tests were carried out using the SmartPLS ver 2.0 program. Of the six hypotheses tested in this study, it finally showed significant results. The hypothesis shows that all of the variables proposed in this study affect user behavior in using cloud computing services.

*Keywords: Cloud Computing, Security, Internet Connection Quality, Attitude, Technology Acceptance Model*

## Introduction

Technological innovation has a significant and important impact on human life. This era is believed to be the era of the technological revolution. Rapid developments in information technology can simplify the lives of millions of people. The rapid development of technology can change the world's economic life and business atmosphere. One of the products of advances in information technology is Cloud Computing (Cloud Computing). Changes in the business environment require organizations to adapt strategies in order to respond to global changes in the fields of science, technology, and business, and these conditions can affect the organization's business performance. The efficiency of a business is determined by the objectivity and timeliness of the information that must be provided by the accounting system. The system has an important role to provide information that is used as the basis for decision making in the company (Butkevicius, 2009; Kalcinskaite, 2009, Kazlauskiene, et al., 2008). According to the National Institute of Standards and Technology (NIST), the definition of Cloud Computing is a computing model that allows easy network access, without location restrictions, and can be done at any time to a group of configurable computing resources (such as networks, servers, data storage). , applications and services), which can be quickly set up and ready to use with minimal effort in management or interaction from the service provider. Or in other words, cloud computing is an information technology service in the form of data storage and the use of applications that can be utilized or accessed by customers through the internet network and the service is provided by the service provider (third party).

The relatively fast development of technology is not followed by the development of accounting information systems. In order for companies to be more competitive, it requires the adoption of the latest

information technology, one of which is cloud computing technology (Arslana, et al., 2009; Miseviciene, 2009; Miseviciene, 2011, et al., 2011; Misevicius, et al., 2004; Morenoa). , et al., 2010). Situations like this, have an impact on companies and users to start using cloud computing. Cloud computing offers advantages and benefits for all types and types of companies or users. In general, users are attracted to the promise that service providers provide for the use of cloud computing, and also that cloud computing can be used at a relatively small cost. This indicates to all companies and users around the world to slowly resize their information technology infrastructure, and start using computing services available on the internet to meet the needs of organizations (Carr 2008).

A year later, in 2001 The Kyocera 6035 became the pioneer of the first smartphone to use the Palm OS. In 2002, Microsoft's first Windows CE (Pocket PC) on smartphones was introduced. Still, in 2002, Blackberry released its first smartphone. 3 years later, in 2005 Nokia introduced Maemo OS on its first internet tablet Nokia N770. Then in 2007, the Apple iPhone with iOS was introduced as the iPhone "mobile phone" and "internet communicator". A year later, in 2008 OHA formed by Google released Android 1.0 with the HTC Dream (T-Mobile G1) as the first Android phone. The Android version was preceded by the release of the Android beta in November 2007. The first commercial version, Android 1.0, was released in September 2008. Android is continuously developed by Google and the Open Handset Alliance (OHA), which have released a number of updates to the operating system since the release of the initial version. Since April 2009, Android versions have been developed under code names named after desserts and sweets. Each version was released in alphabetical order, namely Cupcake (1.5), Donut (1.6), Eclair (2.0–2.1), Froyo (2.2–2.2.3), Gingerbread (2.3– 2.3.7), Honeycomb (3.0–3.2 .6), Ice Cream Sandwich (4.0–4.0.4), Jelly Bean (4.1–4.3), KitKat (4.4+), Lollipop (5.0+), Marshmallow (6.0+), Nougat (7.0+) and later android versions latest is Android Oreo (8.0+). On September 3, 2013, Google announced that approximately 1 billion active mobile devices worldwide use the Android OS. Android 5.0 was first introduced under the codename "Android L" on June 25, 2014, during a keynote presentation at the Google I/O developer conference. Alongside Lollipop, the presentation focused on a number of Android-oriented platforms and new technologies, including Android TV, on the Android platform. Auto, wearable on the Android Wear computing platform, and the Google Fit health-tracking platform. Part of the presentation was dedicated to a new cross-platform design language referred to as "material design". Expanding on the "card" motif, first seen on Google Now, is a design with increased use of grid-based layouts, responsive animations and transitions, padding, and depth effects such as lighting and shadows. Design the interface (view) called "Material Design". 64-bit ART compiler Project volta, which is useful for increasing battery life by 30% longer lasting. 'factory reset protection'. This feature is useful when the smartphone is lost, it cannot be reset without entering the google id and password (password). compiled for Marshmallow using that software development kit (SDK), while all other apps will continue to use the previous permissions model.

Marshmallow also has a new power management scheme called Doze that reduces the activity level of background apps when the device determines that it's not being actively handled by the user, which, according to Google, doubles the device's battery consumption.[8] It also introduces the option to reset all network settings, available for the first time on Android, which clears network-related settings for WI-FI, Bluetooth and cellular connections to be used only by apps. Android Marshmallow provides native support

for fingerprint recognition, enabling the use of fingerprints to unlock devices and Play Store authentication and Android Pay purchases; Standard APIs are also available to implement fingerprint-based authentication in other applications. Android. Marshmallow supports USB TypeC, including the ability to instruct devices to charge other devices via USB. Marshmallow also introduces "verified links" which can be configured to open directly within their specific applications without an advanced user manual. Android "Nougat" (codenamed N in-development) is the major 7.0 release of the Android operating system. Android Marshmallow introduces a redesigned permissions model: there are now only eight categories of permissions, and apps are no longer automatically granted all the permissions they were assigned at installation time. An opt-in system is now in use, where users are prompted to grant or deny individual permissions (such as the ability to access the camera or microphone) for applications when they are needed. Apps remember their permission grants, and they can be customized by the user at any time. This new permissions model was first released as a developer preview on March 9, 2016, with factory images for current Nexus devices, as well as with a new "Beta Beta Program" that allows supported devices to be upgraded to the Android Nougat version via over-the-air. Updates, The last release was on August 22, 2016. The final build preview was released on July 18, 2016, to build number NPD90G. On October 19, 2016, Google released Android 7.1.1 as a developer preview for the Nexus 5X, Nexus 6P, and Pixel C. A second preview became available on November 22, 2016, before the final version was released to the public in December. 5, 2016.

As for some of the advantages of organizations and individual users in using cloud computing (Beckham, 2010; White, 2010; Hoffman, 2011; Taylor, 2010), including organizations can reduce costs, because organizations and users can reduce costs for hardware, software. In addition, users' data and application security concerns are guaranteed to the highest level. Organizations and users will have easier administration, because all users will have the same software version, offering real-time backups (this can reduce the loss of important data owned by the organization and its users). Another advantage of using cloud computing is that organizations and users have global access, i.e. users can access and update information from wherever they are, as long as they are connected to the internet network. Organizations and users can also try before buying, so they can know in advance which cloud computing technology is suitable for the needs of users. In addition to some of the advantages of cloud computing that have been described above, there are several risks that exist in cloud computing. There are several risks involved in cloud computing (Beckham, 2010; White, 2010; Hoffman, 2011; Taylor, 2010). First, the fear of security. Because all important information and data belonging to the organization and users are handed over to other parties. Second, internet failure. If the internet is experiencing interference, then the user cannot access the information directly. Third, organizations and users can lose control. Organizations and users lose control over the applications they use, and become very dependent on service providers to update, maintain, and manage them. The technology acceptance model (Davis, 1989) defines two things that affect user acceptance of technology, namely user perceptions of technology. usefulness of technology and ease of use of technology. This study will examine that user perceptions of the usefulness and convenience of technology can be used as a basis in determining steps to encourage users to accept information and communication technology, including cloud computing.

The difference between this study and previous studies is the addition of external variables TAM proposed by the author, namely security and confidentiality and the quality of internet connections. The author includes the external TAM variable because the most important issue in cloud computing is the security and confidentiality of data that is managed by a third party (the cloud computing service provider). In addition, to use and access cloud computing, users must take advantage of an internet connection. As previously mentioned, there is an issue of fear for safety and internet failures provided by cloud computing. The author chose Yogyakarta as the research sample with the consideration that Yogyakarta, which is known as a city of students and college students, currently needs the internet as a medium of learning.

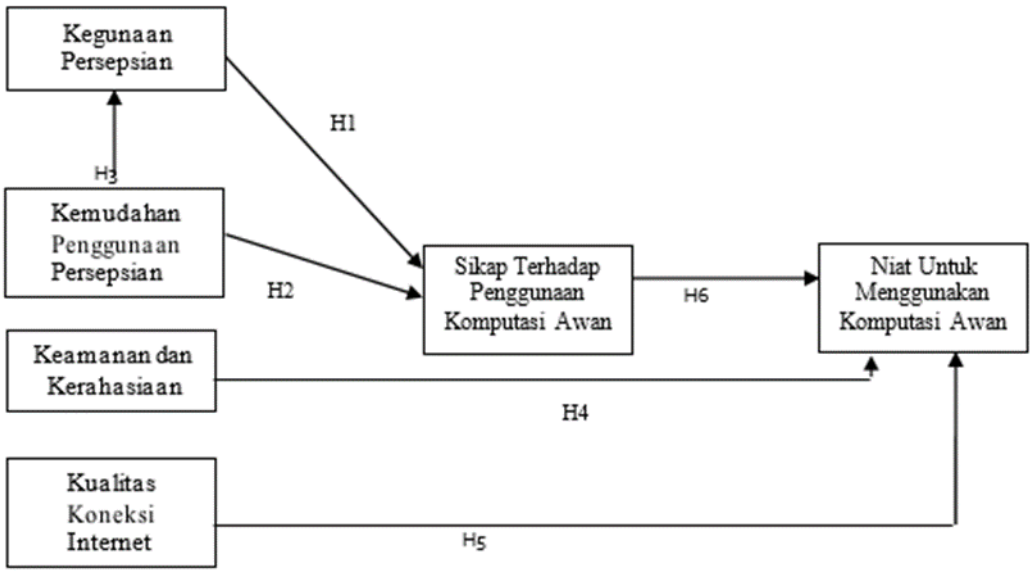


Figure 1. Research Model

## Literature Review

2.1 Perceived Usefulness

Perception, according to Rakhmat Jalaludin (1998: 51), is the experience of objects, events, or relationships obtained by inferring information and interpreting messages. According to Ruch (1967: 300), perception is a process of relevant sensory cues and past experiences organized to give us a structured and meaningful picture of a particular situation. In line with this, Atkinson and. Hilgard (1991: 201) suggests that perception is the process by which we interpret and organize stimulus patterns in the environment. Gibson and Donely (1994: 53) explain that perception is the process of giving meaning to the environment by an individual. Davis (1989) and Adam.et.al (1992) define usefulness as a degree to which a person believes that the use of a particular technology will improve that person's work performance.

With this definition, it can be interpreted that the use of cloud computing can improve performance, and the performance of people who use it. Usefulness in cloud computing is the benefits obtained or expected

by users in carrying out their duties and work. Therefore, the level of usability of cloud computing affects the attitude of the users towards the system. The tested hypotheses are:
H1: Perceived usefulness has a positive effect on user attitudes to use cloud computing.

2.2 Perceived Ease of Use

Davis (1989) defines ease of use as a degree to which a person believes that computers can be easily understood. On the basis of this definition, the ease of use of cloud computing means the ease of understanding when carrying out activities and work through the facilities provided by cloud computing. Adam et al, (1992) stated that the intensity of use and interaction between users and the system can indicate the ease of use of the system. A system that is often used shows that the system is better known, easier to operate and easier to use by its users. Ease of use can reduce the effort, time and effort of users to learn the ins and outs of activities and jobs through cloud computing.
Perceived ease of use can also indicate that users of information systems can work more easily than when working without using information systems. Davis (1989) provides several indicators of ease of use of an information system which include: easy to learn and operate, do easily what users want, and increase the skills of users. Thus, if the cloud computing services provided by a provider are perceived as easy by its users, then the system can be perceived as useful for users, because if it is easy to use, the system will provide benefits for its users. Therefore, the ease of use of a system will affect its adoption by its users. The tested hypotheses are :

H2: Perceived ease of use has a positive effect on user attitudes to use cloud computing.
H3: Perceived ease of use has a positive effect on perceived usefulness.

2.3 Security (Security)

Security is defined as data protection from intentional and unintentional announcements by unauthorized persons (Grandinetti, 1996). Meanwhile, privacy or confidentiality refers to the rights of individuals and organizations to determine when, how and to what extent information about them is conveyed to other parties (Martin, 1997). Users want security and confidentiality of data sent and received by users to the provider. If the provider can guarantee the security and confidentiality of the data of its users, it will increase the user's intention to use cloud computing services. Thus the hypothesis to be tested is:

H4 : Security and confidentiality have a positive effect on user intention to use cloud computing.

2.4 Quality of Internet Connection

According to Karahanna and Straub (1999) the easier an information system is to access, the less effort is required to use the system. In the context of cloud computing, the quality of the internet is not only related to the ability to use the system but also the physical accessibility of the internet connection. According to Goh (1995) if technology infrastructure supports are available easily and quickly, internet applications such as cloud computing will become more feasible and easy to use. The ability to access the internet is a factor that drives the adoption of cloud computing, because cloud computing is a service based on the availability of the internet. Cloud computing can only be used in the condition that the device used is connected to the internet. A good quality internet connection encourages users to perceive cloud computing technology to

be more positive, because their activities and work are not hindered by a bad internet connection. Therefore, the hypothesis being tested is:

H5: The quality of the connection from the internet has a positive effect on the user's intention to use cloud computing.

2.5 Attitude Toward Using

According to Davis in Jogiyanto (2007), attitude toward behavior is a positive or negative feeling from someone if they have to perform the behavior to be determined. Attitude towards behavior is also defined by Mathieson (1991) as the user's evaluation of his interest in using a system. This attitude will guide individual behavior by filtering information and sharpening his perception of a system. (Fazio, 1986). Therefore, attitudes toward use are conceptualized as a potential measure of their assessment of an information system. The better one's feelings towards technology, the higher the relationship between attitudes towards use and the intentions of users to use the information system. The tested hypotheses are:

H6 : User attitude has a positive effect on user intention to use cloud computing.

## Method

3.1 Research Population and Sample

Population is a collection or aggregation of all elements or individuals who are sources of information in a study, while the sample is part or representative of the population that has the same characteristics as the population, taken as a source of research data. Based on this understanding, the target population in this study are all individuals who have used cloud computing services in Indonesia. And the sample in this study were users of cloud computing services in Yogyakarta.

3.2 Definition and Measurement of Research Variables

The variables studied consisted of 6 (six) variables classified as
following:

(1) The dependent variable consisting of: intention to use (Intention to Use)

(2) The independent variables consist of: Perceived Usefulness, Perceived Ease of Use, Security and Privacy, and Quality of Internet Connection.

(3) The mediating variable consists of: Attitude Toward Using.

As for the question instrument to measure perceived usefulness and perceived ease of use, the question instrument compiled by Heshan Sun and Ping Zang (2006) will be used. To measure the variables of security and quality of internet connection, a question instrument was used which was compiled by Tero Pikkrainen, Kari Pikkrainen, Heikki Karjaluoto and Seppo Pahnila (2004). To measure the attitude variable towards usage, a question instrument compiled by Ritu Agarwal and Elena Karahanna (2000) will be used. The variable of intention to use will be measured using a question instrument compiled by Davis, et al. (1989) and Chau (1996). All question items will be indicated on a 6 Likert scale.

3.3 Data Analysis Techniques

All data collected are grouped according to the characteristics of the intended respondents, namely: people who have used cloud computing technology. These data are in the form of data about the demographic data of respondents and data for hypothesis testing. All of these data are collected systematically and presented in an informative, scientific (scientific) and accountable (responsible) manner. The data that has been collected is then processed in a comprehensive and descriptive-analytic manner. The analysis related to the explanation of various behavior variables was carried out by descriptive analysis based on various relevant theories and approaches. Analysis of the relationship between various variables was carried out by using a statistical test approach in the form of simultaneous equation analysis (Simultaneous Equation Model, SEM).

## Results and Discussion

The number of questionnaires distributed to respondents was 50 (100%). Of the questionnaires distributed, 21 (80.67%) of them were filled out by the respondents and returned to the researchers, while the remaining 9 (19.33%) were not returned to the researchers. Of the 121 returned questionnaires, 2 (3.33%) were completed, so that 16 (77.33%). To test the returned questionnaire, Partial Least Square will be used with the help of software SmartPLS ver. 2.0.

4.1. Outer Model

Before testing hypotheses to predict relational relationships in a structural model, testing the measurement model must first be done to verify indicators and latent variables that can be tested further. The tests include construct validity tests (convergent and discriminant) and construct reliability tests (cronbach's alpha and composite reliability).

4.1.1. Validity

The validity test carried out in this study is convergent validity and discriminant validity. The parameters of the convergent validity test are seen from the AVE and Communality scores, each of which must be worth above 0.5. That is, the probability of an indicator in a construct entering another variable is lower (less than 0.5) so that the probability of the indicator converging and entering the construct in question is greater, which is above 50 percent. (Jogiyanto and Willy, 2009).

**Table 1 AVE and Communality**

| | AVE | Communality |
|---|---|---|
| Security | 0.7417 | 0.7417 |
| Perception Use | 0.6193 | 0.6193 |
| Ease of Use Perception | 0.6333 | 0.6333 |
| Internet Connection Quality | 0.7623 | 0.7623 |
| Intention To Use | 0.8168 | 0.8168 |

| | | |
|---|---|---|
| Attitude Towards Use | 0.7472 | 0.7472 |

From the table above, the AVE and Communality values have a value > 0.5 so that the convergent validity can be said to be fulfilled.

For the discriminant validity test, the parameter measured is by comparing the roots of the AVE of a construct that must be higher than the correlation between the latent variables, or by looking at the cross loading score. (Jogiyanto and Willy, 2009).

**Table 2 Cross Loading**

| | K | KP | KMP | KKI | NUM | STP |
|---|---|---|---|---|---|---|
| K1 | 0.8824 | 0.6262 | 0.6602 | 0.559 | 0.6568 | 0.6738 |
| K2 | 0.9219 | 0.6009 | 0.6012 | 0.4515 | 0.6682 | 0.6342 |
| K3 | 0.902 | 0.6308 | 0.6134 | 0.5095 | 0.6415 | 0.676 |
| K4 | 0.8597 | 0.6607 | 0.6628 | 0.6029 | 0.6781 | 0.6292 |
| K5 | 0.7262 | 0.6077 | 0.6693 | 0.4375 | 0.6626 | 0.652 |
| KKI1 | 0.6054 | 0.6328 | 0.6191 | 0.9138 | 0.6356 | 0.6697 |
| KKI2 | 0.4136 | 0.467 | 0.5142 | 0.8304 | 0.4632 | 0.4518 |
| KMP1 | 0.569 | 0.7038 | 0.8314 | 0.5744 | 0.6824 | 0.5945 |
| KMP2 | 0.6296 | 0.7795 | 0.8507 | 0.4695 | 0.6696 | 0.7156 |
| KMP3 | 0.5975 | 0.7199 | 0.8051 | 0.5171 | 0.6343 | 0.6889 |
| KMP4 | 0.5821 | 0.6733 | 0.6856 | 0.5348 | 0.5892 | 0.5283 |
| KP1 | 0.5367 | 0.7623 | 0.6793 | 0.4691 | 0.6147 | 0.5985 |
| KP2 | 0.5554 | 0.8227 | 0.7746 | 0.5101 | 0.6058 | 0.701 |
| KP3 | 0.6005 | 0.8362 | 0.7399 | 0.5627 | 0.6554 | 0.6906 |
| KP4 | 0.6094 | 0.7212 | 0.6494 | 0.4713 | 0.6166 | 0.558 |
| NUM1 | 0.6162 | 0.6514 | 0.6888 | 0.4984 | 0.8794 | 0.5923 |
| NUM2 | 0.7477 | 0.7263 | 0.7742 | 0.6023 | 0.9318 | 0.6862 |
| NUM3 | 0.6739 | 0.7336 | 0.7333 | 0.5803 | 0.9095 | 0.6768 |
| NUM4 | 0.6955 | 0.7525 | 0.7434 | 0.6342 | 0.9002 | 0.7056 |
| NUM5 | 0.74 | 0.6999 | 0.7142 | 0.5693 | 0.8972 | 0.6287 |
| STP1 | 0.6593 | 0.6891 | 0.6604 | 0.5704 | 0.6145 | 0.864 |
| STP2 | 0.6592 | 0.7282 | 0.7421 | 0.5496 | 0.6772 | 0.8985 |
| STP3 | 0.6551 | 0.691 | 0.6684 | 0.5885 | 0.5974 | 0.8293 |

Based on table 2. it can be seen that each instrument for a construct has a greater value when compared to instruments that do not measure the construct. So, it can be concluded that the measurement model in this study has good discriminant validity.

4.1.2 Reliability

Measurement of reliability of the measurement model is measured by looking at the value of Cronbach's alpha and composite reliability. Cronbach's alpha measures the lower limit of the reliability value of a construct, while composite reliability measures the actual value of the reliability of a construct. Rule of thumb Cronbach's alpha value must be more than 0.6 while composite reliability

must be greater than 0.7. The results of the construct reliability test can be seen in table 3 below.

**Table 3 Cronbach's Alpha and Composite Reliability**

| | Composite Reliability | Cronbachs Alpha |
|---|---|---|
| K | 0.9345 | 0.9107 |
| KKI | 0.8648 | 0.695 |
| KMP | 0.8728 | 0.8043 |
| KP | 0.8664 | 0.7941 |
| NUM | 0.9571 | 0.9439 |
| STP | 0.8985 | 0.8303 |

Based on table 3 above, composite reliability has a value of more than 0.7 and Cronbach's alpha has a value of more than 0.6. Thus it can be stated that the gauge used in this study is reliable.

4.2. Inner Model

Structural model testing in PLS is done by looking at the significance of the relationship between constructs by assessing the significance of the path coefficient as seen from the t-test value obtained from the bootstrapping process. The inner model test will be assessed with a T-Statistic value of more than 1.64 at the 0.05 level.

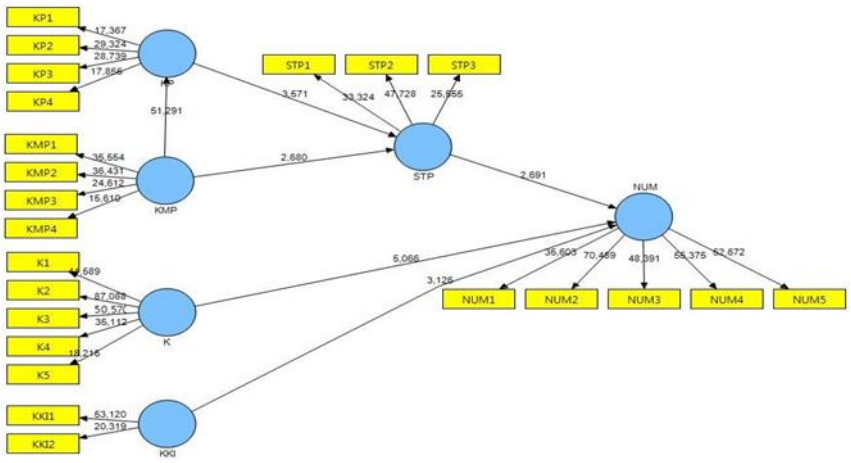


Figure 2. Smart PLS 2.0 (Bootstrapping) Output

In Figure 2. it can be seen that all hypotheses can be said to be supported because they have a value T-Statistic > 1.64 at 0.05 level.

4.3. Discussion

4.3.1 The Effect of Perceived Usefulness on User Attitudes to Use Cloud Computing

Hypothesis 1 states that perceived usefulness has a positive effect on user attitudes to use cloud computing. The results of hypothesis testing in table 4.12 show the path between perceived usefulness

and attitudes towards use has a beta coefficient value of 0.4947 and T-statistics 3.571. This shows that hypothesis 1 is supported, because the T-statistics value is 3.571 > the T-table value is 1.64.
Perceived usefulness has a significant influence on the attitudes of cloud computing users. The results of this study indicate that there are benefits provided by cloud computing to its users, thus giving a positive attitude by cloud computing users. With the benefits that cloud computing provides to its users, it further enhances the positive attitude of cloud computing users.
These results support the research conducted by Davis et al., (1989); Sun and Zhang (2006); Park (2009) who found that perceived usefulness has a positive influence on user attitudes.

4.3.2. The Effect of Perceived Ease of Use on User Attitudes to Use Cloud Computing

Hypothesis 2 states that perceived ease of use has a positive effect on user attitudes to use cloud computing. The results of the hypothesis test in table 4.12 show the path between perceived ease of use and attitudes towards use has a beta coefficient value of 0.3518 and T-statistics 2.680. This shows that hypothesis 2 is supported, because the T-statistics value is 2.680 > the T-table value is 1.64.
The perceived ease of use has a significant influence on the attitudes of cloud computing users. This is due to the ease of use offered by cloud computing to its users, so it gives a positive attitude by cloud computing users. Therefore, the easier it is to use cloud computing, the more positive attitudes of cloud computing users will be.
These results support the research conducted by Davis et al., (1989); Sun and Zhang (2006); Park (2009); Shroff et al., (2011) who found that perceived ease of use had a positive influence on user attitudes.

4.3.3. The Effect of Perceived Ease of Use on Perceptual Usefulness

Hypothesis 3 states that perceived ease of use has a positive effect on perceived usefulness. The results of the hypothesis test in table 4.12 show the path between perceived ease of use and perceived usefulness has a beta coefficient of 0.9056 and T-statistics 51.291. This shows that hypothesis 3 is supported, because the T-statistics value is 51,291 > the T-table value is 1.64.
Perceived ease of use has a significant effect on perceived usefulness. The results of this study found that cloud computing users found it easy to use the technology without having to spend a lot of effort to learn it. So, users will find it easier and faster to complete their tasks. Therefore, the easier use offered by cloud computing will further increase the usability for cloud computing users to complete their tasks.
These results support the research conducted by Davis et al., (1989); Sun and Zhang (2006); Park (2009); Shroff et al., (2011) who found that perceived ease of use had a positive effect on perceived usefulness.

4.3.4. Effect of Security on User Intention to Use Cloud Computing

Hypothesis 4 states that security has a positive effect on user intentions to use cloud computing. The results of the hypothesis test in table 4.12 show the path between security and the user's intention to use cloud computing has a beta coefficient value of 0.4656 and T-statistics 5.066. This shows that hypothesis 4 is supported, because the T-statistics value is 5.066 > the T-table value is 1.64.

Security has a significant influence on the user's intention to use cloud computing. This shows that good security can ensure that the data owned by its users remains safe and is not lost. Therefore, the better the security provided by the provider to its users, the higher the users' intention to use cloud computing.
These results support the research conducted by Salisbury et al., (2001); Chellappa (2002); Chellappa and Pavlou (2002) who found that security has a positive influence on user intentions.

4.3.5. Effect of Internet Connection Quality on User Intention to Use Cloud Computing

Hypothesis 5 states that the quality of the internet connection has a positive effect on the user's intention to use cloud computing. The results of the hypothesis test in table 4.12 show that the path between the quality of the internet connection and the user's intention to use cloud computing has a beta coefficient of 0.2039 and T-statistics 3.125. This shows that hypothesis 5 is supported, because the T-statistics value is 3.125 > the T-table value is 1.64.
The quality of the internet connection has a significant influence on the user's intention to use cloud computing. This is because cloud computing can only be accessed with the availability of a good internet connection. Therefore, the better the quality of the internet connection will increase the users' intention to use cloud computing.
These results support the research conducted by Pikkranein et al., (2004) who found that the quality of internet connection has a positive influence on user intention.

4.3.6. Effect of User Attitude on User Intention to Use Cloud Computing

Hypothesis 6 states that user attitudes have a positive effect on user intentions to use cloud computing. The results of the hypothesis test in table 4.12 show the path between user attitudes and user intentions to use cloud computing has a beta coefficient value of 0.2415 and T-statistics 2.691. This shows that hypothesis 6 is supported, because the T-statistics value is 2.691 > the T-table value is 1.64.
The user's attitude has a significant influence on the user's intention to use cloud computing. The results showed that the attitudes that users have on the use of cloud computing are positive. The more positive a person's attitude towards a technology, the higher his interest in a technology. Therefore, the positive attitude that cloud computing users have will increase the users' intention to use cloud computing.
These results support the research conducted by Davis et al., (1989); Agarwal and Karahanna (2000); Park (2009) who found that user attitudes have a positive influence on user intentions.

## Conclusion

This study aims to examine the effect of technology acceptance factors (perceived usability and perceived ease of use) as antecedents of user attitudes toward intention to use cloud computing technology. This study also examines the effect of external variables that exist in the theory of technology acceptance models (security and quality of internet connections) on the intention to use

cloud computing technology. The results of the research that have been tested in the previous chapter show that technology acceptance factors (perceived usability and ease of use) have a significant effect on user attitudes and user intentions to use cloud computing. It can be explained that the higher the usefulness and ease of an information system, the more positive feelings will be formed and reflected through a positive attitude. This positive attitude will lead to the intention of the user to use an information system, one of which is cloud computing. Other variables such as security and quality of internet connection also have a significant influence on users' intention to use cloud computing technology. This indicates that the better the level of security offered by the cloud computing provider, the higher the user's intention will be. By the same logic, if the quality of the internet connection owned by the user is getting better, it will further increase the user's intention to use cloud computing technology.

Based on the results of research and discussion that have been discussed in the previous chapter, the authors propose suggestions for further research as follows :

1. Future research should also collect data from the point of view of the cloud computing service provider to complement the data collected from the point of view of the cloud computing user.
2. Further research is suggested to add variables that directly affect users' intention to use cloud computing technology, such as storage capacity offered by the service provider, and the price offered by the service provider. These variables can be used as moderating variables in the cloud computing technology adoption model. This is to get a better research model.

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