

# Application of Technology Acceptance Model to Wi-Fi User at Economics and Business Faculty of Brawijaya University (Study on Stratum-1 Students)

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## Abstract

This study aims to analyze and explaining effect of user extrinsic factors (perceived ease of use and perceived usefulness) and user intrinsic factor (perceived playfulness) on attitude toward using, behavioral intention in using and Wi-Fi usage at Economics and Business Faculty of Universitas Brawijaya. This study applies technology acceptance model and using quantitative methods. Respondents were 100 students that active to use Wi-Fi. Primary data was collected by questionnaire and secondary data derived from Information System Management Agency. Statistical analysis used was path analysis. Results show that perceived ease of use, perceived usefulness and perceived playfulness significantly affect attitude toward using, behavioral intention and Wi-Fi usage. This study has shown that intrinsic factors affect on user technology acceptance behavior. Implications of study were Economic and Business Faculty of Brawijaya University should consider in adding facilities, network quality improvement for easy access.

**Keywords:** Technology Acceptance Model (TAM), Wi-Fi, Perceived Ease of Use.

## 1. Introduction

Rapid technology development and globalization allows each individual to interact with family, business associates and other individuals without limited by time and distance. These developments include all technology types, as information and communication technology. Until now, electronic technology development still very fast. With internet technology, information distribution spread quickly (Daniel, 2003:11). In their development, information technology was applied widely in various sectors, such as corporate and educational world. Information technology development also offers various facilities in business activities and educational aspects. This development emerges a wide range of information technologies such as the telephone network and Internet. Internet gives data communication benefits to society, as application email, web, and e-Commerce.

Internet applications and computerized systems in companies and libraries may increase IT applications usage and ultimately contribute to organization development (Nahkoda, 2005 in Sheikshoaei and Oloumi, 2010), Internet was also beneficial for company in order to maintain a profitable customer base, reduce transaction costs, supportive relationships with customers, expand markets, reduce dependence on branch companies and save time and money (Selic, 2008). Internet applications in everyday create trends in society that always connected to internet and trend toward wireless data services. Next development phase was wireless internet network (Lehr and McKnight, 2003). Although initially a wireless network support voice services, but along with wireless network development, technology was used to transfer high-speed data and Internet applications for customers.

Wi-Fi was more practical compared with wire internet to access internet. Many positive benefits were received from internet and Wi-Fi in various fields. One them was internet becomes useful tool for interactive communication, assist research and development of science, data exchange and collaboration between users (Nasution, 2006:4). Application of information technology (IT) to improve education performance becomes a prerequisite competencies that required by a number of scholars such as teachers, professors, students, researchers, and management of educational institutions. (Indrajit, 2006).

Wi-Fi as further development of Internet provides many advantages compared to wired internet. Wi-Fi and Internet usage prospects were still very large. This phenomenon has supported by government internet program that launched by internet come to village which will be completed in 2015. Currently Indonesia has many categories of lagging regions, where many people were still live in a traditional pattern. Therefore, government promotes Internet program to village. It meant that all people in underdeveloped region still can get new information about government, agriculture, mining and various other jobs. Further benefits of Internet or Wi-Fi for village were to make rural people aware of technology. It was expected to be able to further increase human resources quality in rural and future generations through education.

Specifically, application of information technology (Wi-Fi) in Economics and Business Faculty of University of

Brawijaya was to facilitate and support learning students. In addition, it was expected Wi-Fi applications makes students more independent, and growing awareness that IT was a knowledge source and to raise talent and skills competency to use information technology. For faculty, Wi-Fi technology can be used to help them explain existing teaching materials in various forms, as visual or multi-media illustrations that interesting.

Wi-Fi Usage in Economics and Business Faculty of Brawijaya University was a situation that requires experience and skills to use information technology to support educational performance and was expected to increase education quality (Indrajit, 2006). To achieve it, academic organizations need to motivate students to interact and taking benefit from free Wi-Fi. Therefore, it needs to develop commitment, perceptions of educational institutions. However, in practice, free Wi-Fi access provided often slow, it was because server was down or limited quotas can also make Wi-Fi speed was not proportional to number of users. It makes data flow very slow. Many students complain and do not use Wi-Fi because difficult connection that caused by over-bandwidth. Consequently this affects student wishes to use Wi-Fi. Easier technology creates more benefits and more user visit. The more useful a technology, it was likely to be used much more. One reason to support above opinion was said by Davis (1989), namely: "People tend to use or not use an application to the extent they believe it will help them perform their job better." It means a person tends to use or not use technology as far as they believe the application will help them do their jobs better. Furthermore, Davis (1989) said as follows: "An application perceived to be easier to use than another is more likely to be accepted by users." It means was applications were considered easier to use than others more likely to be accepted by users.

To examine this phenomenon, writer used TAM (Technology Acceptance Model). Technology acceptance concept for this study came from Technology Acceptance Model (TAM). It was developed by Davis in 1986. TAM method describes theoretical relationship between internal user confidence, attitude toward using, usage interest, and usage behavior, to determine how individuals accept or reject a new technology (Davis, 1989). TAM has been used widely as a theoretical framework in information technology, education, and business (Davis, 1989; Davis et al., 1989; Seikhsoei and Oloumi, 2010; Selik, 2008). TAM in information technology was used to predict acceptance and usage of information technology by user (Davis, 1989).

In another study, TAM concept was modified by incorporating external variables (Davis et al., 1989; Davis, 1991; Seyal and Rahman, 2007; Moon and Kim, 2000; Davis, et al., 1991). Moon and Kim (2000) establish a TAM construct with a new variable for internet usage context. Moon and Kim introduces perceived playfulness. Concept of perceived playfulness variable developed from flow concept (Csikszentmihalyi, 1975). Reason to uses technology acceptance model theory in this study and its relationship with research subjects were because technology acceptance model theory has ability to explain and predicting technology user's behavior. It was consistent with Davis, et al. (1989) which states that: "The goal of TAM is to provide an explanation of the determinants of computer acceptance that is general, capable of explaining user behavior across a broad range of end-user computing technologies and user populations." It means TAM goal was to explain determinants of computer acceptance generally, capable to explain behavior of end user computer technologies and populations user at large. Second reason was technology acceptance model was designed to examine information technology. It is consistent with opinion of Davis, et al. (1989) which says that: "Technology Acceptance Model, is and adoption of Theory of Reasoned Action (TRA) specifically tailored for modeling user acceptance on information system." It means that technology acceptance model, an adaptation of Theory of Reasoned Action (TRA), specifically designed for the model on user acceptance of information systems.

While the reason for the latter was the technology acceptance model can provide an explanation for the basis for effect of external factors on internal beliefs, attitude toward using, and behavioral intention. In the study Davis, et al., (1989) states: "A key purpose of TAM, therefore, is to provide a basis for tracing the impact of external factors on internal beliefs, attitude toward using, and intentions". It means a main objective of TAM was to provide a basis for tracking the impact of external factors on perceived ease of use and perceived usefulness (internal beliefs), attitude toward using, and interest. Moreover, the attractiveness of this study with other studies because several studies that discuss mobile technology and internet were not only based on technical research on problems underlying the technology of mobile internet users. This was in accordance with the opinion-Krulle Ng et al. (2004), Chow (2006) who argued that: "A large amount of literature so far is still "technical-driven" and most research conducted on the mobile internet elaborates on technological requirements without discussing important end-user issues (Ng-Krulle et al. 2004). There is therefore a need for more research efforts into those underlying "drivers" that motivates users to adopt these services." It means that most literature so far was still review technical and value that largely research done only on mobile internet technology requirements without addressing the problem or issue was important to end user (Ng-Krulle et al., 2004).

There was therefore a need for research to examine the basic things that motivate users to adopt these services. Opinions Teo et al., 1999; Lin et al., 2005 stated that: "Researchers applied TAM to Internet as a technology acceptance and found that technology can also be intrinsically motivated." It means that researchers applied TAM on Internet as a technology and found that technology acceptance can be motivated intrinsically. Therefore,

this research adds perceived playfulness as an intrinsic motivation factor. Further reasons to select objects from Economics and Business Faculty of Universitas Brawijaya were Wi-Fi used for learning purposes. Consistent with Moon and Kim (2000) opinion, internet was used for leisure or play as well as for work or study. It means internet that used to relax or play was same as for work or study.

Based on various phenomena, theories concepts and previous studies mentioned above, there were difference results among researchers. This research will demonstrate empirically students behavior regarding to Wi-Fi facilities usage in Economics Faculty with Wi-Fi perceived usefulness, Wi-Fi perceived ease of use, attitude toward using in Wi-Fi, and usage Wi-Fi interest (behavioral intention) Wi-Fi. TAM modifications that performed in this study were adding perceived playfulness variables. It was interesting to conduct research on implementation of technology acceptance model to Wi-Fi users in Economics and Business Faculty at Universitas Brawijaya (study on stratum-1 student).

## 2. Theoretical basis

### 2.1 Wi-Fi

Wi-Fi was abbreviation for Wireless Fidelity. It means standard used for Wireless Local Area Networks WLAN (Hosseini, 2004). Wi-Fi (Wireless Fidelity) was a wireless connection using technology such as mobile phone radio. Users can transfer data quickly and safely. Wi-Fi term was created by Wi-Fi Alliance company, a WLAN tools certification company. Wireless devices were tested for ability to operate with other wireless devices using same standard. Entire wireless devices that pass will be given "WI-FI certified". It means this device can work well with other certified wireless devices. It enabled anyone who has a computer with a wireless card or personal digital assistant to connect to internet using the nearest access point or hotspot.

### 2.2 Technology Acceptance Model (TAM)

Since end 1980s, many research of technology adoption focuses on exploring user interest determinants to use new technologies. Many theories have been developed to study problem of information technology (IT) adoption, including reasoned action theory (Fishbein and Ajzen, 1975, in Davis 1989) and technology acceptance model (Davis, 1989). Technology acceptance model was an adaptation of theory of reasoned action (Fishbein and Ajzen, 1975) that was a social psychology model (Davis et al., 1989). Technology acceptance model focuses on two beliefs, namely perceived usefulness and perceived ease of use and their effect on interest usage (behavioral intention). According to Davis (1989) theory, perceived usefulness and perceived ease of use were two criteria that determine user's acceptance and directly affects their attitude toward using. In turn it determines interest to using (behavioral intention). Davis et al., (1989) modifies technology acceptance model with a finding that mediation effect of attitude toward using can be ignored.

Therefore, they remove attitudinal variables from model and propose simple technology acceptance model based on three main variables: perceived usefulness, perceived ease of use, usage interest. This model has been empirically validated several times by subsequent studies that focused on perceived usefulness, perceived ease of use and usage interest (Szajna, 1996, Venkatesh, 2000; Venkatesh and Davis, 2000; Venkatesh et al., 2000) . Technology acceptance model has been tested to explain or predict usage interest to various technologies such as word processing applications, email, software or graphics software (Davis, 1989; Davis et al., 1989). Technology acceptance model has been proven valid to test acceptance of a various technology available commercially that primarily used in office environment (McKechnie et al., 2006, Constantine and Ioannis 2005) or educational environment (Davis et al., 1989, Sheikhshoaei and Oloumi 2010).

### 2.3 Variables in Technology Acceptance Model

Original concept of Technology Acceptance Model (TAM) that has not been modified in this case includes external variables with 5 variable constructs. Description of Technology Acceptance Model (TAM) variables were described below.

#### 2.3.1 Perceived Ease of Use (PEOU)

Davis (1989) defines perceived ease of use as follows: "Perceived ease of use defined here as the degree to which a person believes that using a particular system (technology) will be free of effort". Opinion above means one confidence level that a specific sistem usage will free from efforts. McKechnie et al. (2006) shows that the perceived ease of use was a major determinant that determines perceived usefulness.

#### 2.3.2 Perceived Usefulness (PU)

In 1989 Davis defines perceived usefulness as follows: "Perceived ease of use defined here as the degree to which a person believes that using a particular system, will enhance his or her job performance". Opinion above means one confidence level that person who uses a system will improve performance. In adopting and using new technologies in workplace, Venkatesh et al., (2000) provide evidence that most important determinant of attitude toward using for employees to adopt and use new technologies was perceived usefulness. It was also a determinant of behavioral intention.

#### 2.3.3 Attitude toward Using (PP)

Fishbein and Ajzen (1975) said that attitude toward using was one tendency to respond to an object in favorable or unfavorable way. They showed that attitude toward using can be determined by perceived ease of use. While attitude toward using was bridge between belief (perceived usefulness, perceived ease of use) and intention to use technology (behavioral intention), According to Davis et al. (1989) attitude toward using was “An individual’s positive or negative feelings about performing the target behavior “. It means user assessment in form of positive or negative feeling to perform desired behaviors. Attitude toward using in TAM was conceptualized as attitude toward system usage in form of acceptance or rejection as a result when someone uses a technology in its work (Davis, 1989). Mathieson (1991) in Gadner and Amoroso (2004) stated that attitude toward using was an evaluation of user's interest to use system.

#### *2.3.4 Interest in Using Technology or Behavioral Intention (BI)*

Davis (1989) defines interest in using technology (behavioral intention) as follows: “Behavioral Intention which is expressed as an anticipated action or inaction towards a system.” It means interest in using was person's desire to use system or not. Interest in using technology was someone desires to perform a specific behavior. Someone will perform a behavior if interested in using technology (behavioral intention). Results showed that technology usage was an interest to use best predictor technology usage by system users (Gaedner and Amoroso 2004). One conclusion of Davis et al. (1989) was computer usage can be predicted quite well from their interest to use technology in actual use that can be predicted by technological usage interest (behavioral intention).

#### *2.3.5 Technology Usage (Actual Usage)*

Behavior was a person action. In information technology systems usage context, behavior was actual usage of technology (Jogiyanto 2007:117). In various studies, because actual use can not be observed by researchers that using questionnaires, actual usage often replaced with perceived usage. David (1989) uses term of actual technology use (actual use). Igbaria et al., (1995) measures perceived usage as amount of time spent to interact with technology and frequency of use.

#### *2.3.6 Perceived Playfulness (PP)*

Perceived playfulness was intrinsic factor. This variable was introduced first time by Moon and Kim in 2000. Definition of perceived playfulness by Moon and Kim (2000) was “The extent to which the individual perceives that his or her attention is focused on the interaction with the internet, is curious during the interaction and finds the interaction intrinsically enjoyable or interesting”.

Above opinion means how far individuals feel the attention was focused on interaction with internet, curious during interaction and found that interaction intrinsically enjoyable or interesting. Definition of pleasure was perceived level of how much user focused, curious and fun, and feel their interaction while interacting with a technology. Playfulness concept proposed by Moon and Kim (2000) was based on flow theory (Csikszentmihalyi, 1975). Csikszentmihalyi (1975) defines concept of flow as holistic sensation that was felt when they act with total involvement. Moon and Kim (2000) note that perceived playfulness has a positive effect on attitude toward using and interest in using (behavioral intention).

#### *2.4 Flow Concept*

Flow concept was introduced by Csikszentmihalyi in 1975. According to Csikszentmihalyi, Flow was the holistic sensation that people feel when they act with total involvement. It means holistic sensation will be people felt when they act with total involvement (Csikszentmihalyi, 1975). Csikszentmihalyi (1990) argues that people very happy when they within flow state. It was a state of concentration or absorption the activity or situation at hand. It was a situation where people very involved in an activity until seem did not care about the environment. For example, if someone was listening to most preferred music or related to mood, someone will listen deeply, so changing person's consciousness. People though would blend with music, people no longer feel themselves as separate things with music.

Flow condition describes a holistic sensation that happens when we perform actions with full involvement. This was a situation where actions be done according to internal logic that not need a conscious intervention. Meeting this situation, someone will feel that there was a little bit difference between one's self and environment, between stimulus and response (Csikszentmihalyi, 1975 ).

### **3. Conceptual Framework**

#### *3.1 Research Hypotesis*

Based on conceptual framework, this study proposes 9 hypotheses follow:

- H1= Increased perceived ease of use Wi-Fi will be able to improve perceived playfulness to use Wi-Fi
- H2 = Increased perceived playfulness in using Wi-Fi will be able to improve attitude toward using Wi-Fi
- H3 = Increased perceived playfulness in using Wi-Fi will be able to increase interest of using (behavioral intention) Wi-Fi.
- H4 = Increased perceived ease of use Wi-Fi will improve perceived usefulness of Wi-Fi
- H5 = Increased perceived usefulness of Wi-Fi will be able to improve attitude toward using Wi-Fi

- H6 = Increases perceived usefulness of Wi-Fi will be able to increase interest of using using (behavioral intention) Wi-Fi.  
H7 = Increased perceived ease of use Wi-Fi will be able to improve attitude toward using Wi-Fi  
H8 = Increased attitude toward using Wi-Fi will be able to increase interest in using using (behavioral intention) Wi-Fi.  
H9 = Increased interest in using using (behavioral intention) Wi-Fi technology will be able to increase real technology usage (actual usage).

#### 4. Methods

This was confirmatory research type. Sample of this study was active Wi-Fi users, based on data BPSI from Brawijaya University, there were 2026 users where 1500 users were not active and remaining 526 were active users. Samples decided by accidental sampling method. Data was collected by questionnaire, measured by 5-point Likert scale. Data were analyzed by path analysis. Qualitative information in this research aims to make the issue become clearer.

#### 5. Results And Discussion

##### 5.1 Respondents Characteristics

Descriptive analysis showed that majority the Wi-Fi users of Economics and Business Faculty was from class of 2012 with amount of 45%, while the lowest was class of 2009 with amount 13%. Wi-Fi usage frequency of 3 times a week was equal to 56%, while users with more than 3 times Wi-Fi usage a week were 44%.

##### 5.2 Hypothesis Testing

Data analysis show that entire hypothesis in this study were significant. It shown in table below, at column significance (sig) where all significance level were lower than 0.05 (sig. <0,05). Furthermore, if seen in column t, all t-count values were lower than 1.984 (t-table). All hypothesized variables relationships were significant and meaningful. It mean H1, H2, H3, H4, H5, H6, H7, H8 and H9 was accepted.

First hypothesis testing show that a path coefficient ( $\beta$ ) of partial effect was 0.59. It means that there was strong relationship between the two variables. Second hypothesis testing show that a path coefficient ( $\beta$ ) of partial effect was 0.25. It means that there was strong enough relationship between the two variables. Third hypothesis testing show that a path coefficient ( $\beta$ ) of partial effect was 0.20. It means that there was strong enough relationship between the two variables.

Fourth hypothesis testing show that a path coefficient ( $\beta$ ) of partial effect was 0.59. It means that there was strong relationship between the two variables. Fifth hypothesis testing show that a path coefficient ( $\beta$ ) of partial effect was 0.29. It means that there was strong enough relationship between the two variables. Sixth hypothesis testing show that a path coefficient ( $\beta$ ) of partial effect was 0.35. It means that there was strong enough relationship between the two variables. Seventh hypothesis testing show that a path coefficient ( $\beta$ ) of partial effect was 0.21. It means that there was strong enough relationship between the two variables. Seventh hypothesis testing show that a path coefficient ( $\beta$ ) of partial effect was 0.21. It means that there was strong enough relationship between the two variables.

Seventh hypothesis testing show that a path coefficient ( $\beta$ ) of partial effect was 0.21. It means that there was strong enough relationship between the two variables. Eighth hypothesis testing show that a path coefficient ( $\beta$ ) of partial effect was 0.22. It means that there was strong enough relationship between the two variables. Last hypothesis testing shows that a path coefficient ( $\beta$ ) of partial effect was 0.59. It means that there was strong relationship between the two variables.

#### 6. Discussion

##### 6.1 Effect of Perceived Ease of Use on Perceived Playfulness

Wi-Fi system easiness was used to strengthen perceived playfulness. Someone happy felling in using system was determined by how easy technology can be used. This was because when a person faces a simple system, that user feels enjoyment, focus and great curiosity with these technologies. These results were consistent with research of Moon and Kim (2000).

##### 6.2 Effect of Perceived playfulness on Attitude Toward Using

Someone's perception strength to pleasure will reinforces the formation of attitude toward using technology. It can mean that when a person feels happy in using Wi-Fi, this perception affects person's cognitive and affective in shaping attitude toward using. These results were consistent with research of Davis (1989), Moon and Kim (2000), Seyal and Rahman (2007), Sheikshoaei and Oloumi (2010), Davis et al. (1989), Davis et al. (1992), McKechnie, et al. (2006).

##### 6.3 Effect of perceived playfulness on Behavioral intention of Wi-Fi

Strong perceived playfulness will attract someone in using Wi-Fi. When someone feels deeply technologies

usage, it will foster one's intention to use a technology. These results were consistent with research of Moon and Kim (2000).

#### *6.4 Effect of Perceived Ease of Use on Perceived Usefulness of Wi-Fi*

Perceived ease of use of Wi-Fi systems were used to increase perceived usefulness of Wi-Fi users. When users meet technology that is easy to operate, then users are easy to understand the purpose of technology. Research results of perceived usefulness are also consistent with Davis (1989), Moon and Kim (2000), Seyal and Rahman (2007), Sheikhshoaei and Oloumi (2010), Davis et al. (1989), Davis et al. (1992), McKechnie, et al. (2006).

#### *6.5 Effect of perceived usefulness on attitude toward using*

The amount of usefulness that is felt by a Wi-Fi user will affect user attitudes to use Wi-Fi. Users who already feel the benefits of a technology will be able to affect their cognitive and affective responses to create positive attitudes to use technology. These results were consistent with research of Davis, et al. (1989), Venkatesh, et al. (2000), McKechnie, et al. (2006).

#### *6.6 Effect of Perceived Usefulness on Behavioral Intention of Wi-Fi*

The amount of usefulness that is felt by a Wi-Fi user will increase user's interest to use Wi-Fi. Users' perceived usefulness in using technology will motivate users to use technology. It grows user interest in using Wi-Fi continuously. These results were consistent with research of Moon and Kim, (2000), Venkatesh, et al. (2000).

#### *6.7 Effect of Perceived Ease of Use of Wi-Fi on Attitude toward Using*

Ease of use level of a system will affect someone's attitude in using Wi-Fi. If a user interacts with technology systems that are easy to use, then it affects cognitive and affective responses to create a positive attitude toward using of these technologies. These results were consistent with research of Davis, et al. (1989), Davis (1989), and McKechnie et al. (2006).

#### *6.8 Effect of attitude toward using on Behavioral Intention of Wi-Fi*

Strength of a person's attitude toward using Wi-Fi will affect a person's interest in using Wi-Fi. This is because if positive cognitive and affective responses in using technology are already formed, it creates a positive attitude that motivates to use technology, so it grows user interest in using Wi-Fi continuously. These results were consistent with research of Moon and Kim (2000), Mathieson (1991), Davis, et al. (1989).

#### *6.9 Effect of Behavioral Intention of Wi-Fi on Wi-Fi Actual Usage*

Higher interest or intention in using Wi-Fi will increase duration and frequency of Wi-Fi actual usage. If someone was motivated to use then it grows interest in using, it encourages a person to use or apply a technology. Therefore, frequency and duration of using a technology depends on how much a person is interested in technology. These results were consistent with research of Moon and Kim (2000).

#### *6.10 Results of qualitative information*

Qualitative analysis results can be used to explore research problems more clearly. Qualitative analysis was conducted on 10 respondents when collecting questionnaires. The qualitative questions were perceived ease of use, i.e. total six questions. From analysis results, it showed that respondents know how to operate and understand Wi-Fi features by reading instructions supplied in IT books or tutorials that are available on internet, it learned through a friend. Indonesian language software and standard systems that issued by internet agency in the world also helps respondents to understand features and operation of Wi-Fi. Majority of respondents familiar with internet so it was easier for respondent to become proficient in using Wi-Fi.

Students of active users that did not want to use Wi-Fi to access internet or prefer to use internet outside campus due the bandwidth provided by campus often can not accommodate all users or overload. This was due to bandwidth quota reserved was disproportional with users who use. Consequently, Wi-Fi access speed often slows and Wi-Fi connection was lost. In addition, most active users have own modem or internet connection. It was used as reserve if Wi-Fi access in campus was overloaded.

## **7. Conclusion**

Easiness level of a system affects perceived playfulness and perceived usefulness. System operation easiness affects user's perceived usefulness. Easy system also affects level of appreciation or user involvement totality in usage. Attitude toward using affected by system easiness, perceived usefulness and level of appreciation or user involvement totality in usage. Furthermore, users' interest in using Wi-Fi were affected by perceived usefulness, level of appreciation or user involvement totality in usage, and user attitudes towards Wi-Fi. Perceived usefulness in this research was dominant factor that influencing user attitudes and interest in using Wi-Fi. User interest will determine Wi-Fi usage. Users with great interest will result in longer usage duration and more often to use Wi-Fi.

## **8. Suggestions**

Respondents have some level of proficiency and usage of Wi-Fi. Therefore, future research needs to study more

specific the user experience or proficiency in using technology. TAM theory that applied in this study comes from social sphere. Therefore it needs special research in order can to generalize Wi-Fi or internet usage within medicine or engineering.

The purpose of this study was examining Wi-Fi usage in learning context. It hoped future research will address Wi-Fi usage in job and entertainment facilities context. From statistics development, future research of technology acceptance model should reveal mediation relationship existence between TAM variables, both for complete mediation and partial mediation.

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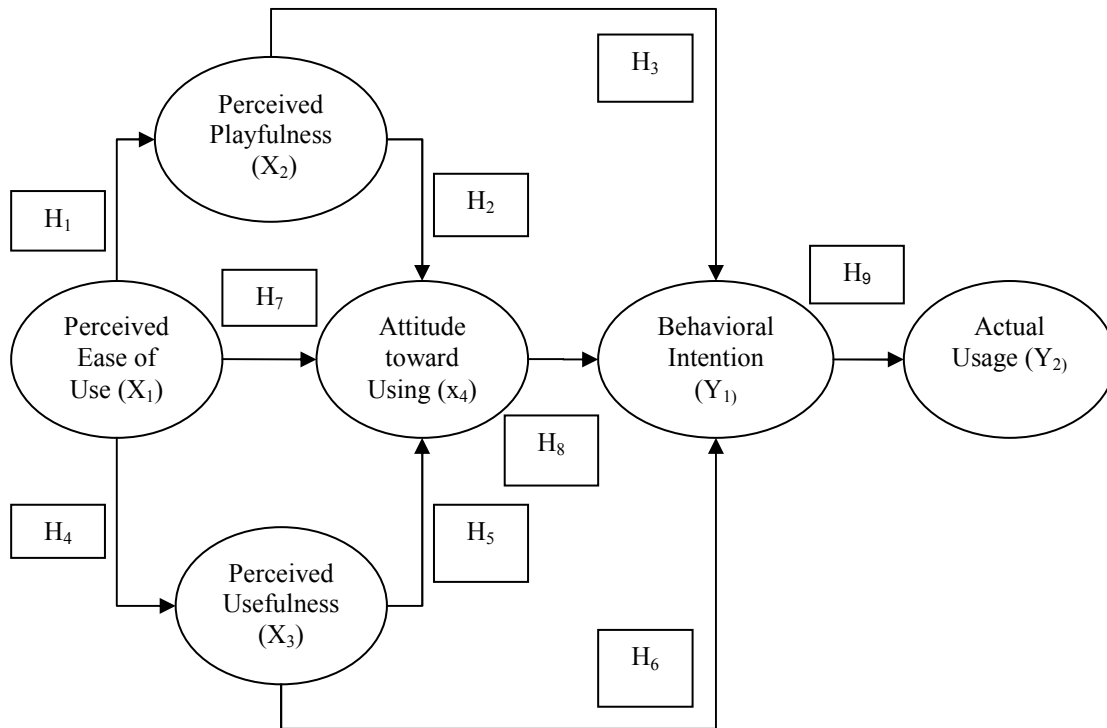


Figure 1 Conceptual Framework and Hypotesis Model

Table 1 Path Analysis Direct Effect Result

Independent Variable	Dependent Variable	Standardized Coefficient beta ( $\beta$ )	t	Sig.	Statement
PEOU	PP (H1)	0,59	7,32	0,00	Significant
	PU (H4)	0,59	7,38	0,00	Significant
	ATU (H7)	0,21	2,02	0,04	Significant
PP	ATU (H2)	0,25	2,64	0,01	Significant
	BI (H3)	0,20	2,10	0,03	Significant
PU	ATU (H5)	0,29	2,81	0,00	Significant
	BI (H6)	0,35	3,49	0,00	Significant
ATU	BI (H8)	0,22	2,26	0,02	Significant
BI	AU (H9)	0,59	7,30	0,00	Significant

Note:

PEOU : Perceived Ease of Use      ATU : Attitude toward Using  
 PP : Perceived Playfulness      BI : Behavioral Intention  
 PU : Perceived Usefulness      AU : Actial Usage

Source : Primary Data Processed

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