Acceptance Analysis of Technology-Based Personnel Management Information Systems (Simpatik) in Supporting The Implementation of E-Government in Semarang City Manpower Service

Muhammad Nurkholis Majid [1,*], Kholiq Budiman [1]

[a] Department of Computer Science, Faculty of Mathematics and Natural Sciences, Universitas Negeri Semarang, Semarang, Indonesia
*Corresponding author: mnurkholismajid66@students.unnes.ac.id

ARTICLE INFO

ABSTRACT

In this digital era, information technology has an important role for institutions, companies, communities, and governments. In carrying out the main tasks of the Semarang City Manpower Service, one of them is evaluating employee performance. In assessing the performance of the Semarang City Manpower Service employees using SIMPATIK which was developed by the Semarang City BKPP which was launched in 2018. Where the implementation of the new system needs to be evaluated further. This is due to the failure to implement e-government services, not because of the quality and capacity of the system, but because of the low user acceptance of these services. Thus, it is necessary to analyse the level of acceptance in using SIMPATIK services at the Semarang City Manpower Service whether it can be evaluated further. So that SIMPATIK can still exist to be used for various kinds of services contained in the application by ASN at the Semarang City Manpower Service. The method applied to data collection is the interview and questionnaire method. While the method applied to evaluate SIMPATIK is the Technology Acceptance Model (TAM) by applying four research variables, namely perceived usefulness (PU), perceived ease of use (PEOU), attitude toward using (ATU), and behavioural intentions (BI). To examine the data adopted the method of Structural Equation Model-partial Least Square (SEMPLS). The conclusion reached in this study is that all hypotheses developed in this study were accepted, except for PU on BI rejected because the value of T-Statistics (0.846) < T-Table (1.96) and P-Values were more than 0.05 with a value of 0.398 .

1   Introduction

In this digital era, information technology has an important role for institutions, companies, communities, and governments. In the government environment, especially in carrying out the main tasks of the Semarang City Manpower Service, one of which is evaluating employee performance. In assessing the performance of the employees of the Semarang City Manpower Office using a technology-based personnel management information system (SIMPATIK). SIMPATIK is a combination of various applications found in the Semarang City Education and Training Personnel Agency by applying Single Sign On (SSO) technology. SSO is a centralised login technology where all different systems can be integrated using one active and valid user account, which SIMPATIK was launched in 2018.

In accepting applications based on information technology which were first launched, not most people can easily understand and adopt these services. According to (Jonar, 2017), the failure of implementing E-Government is not due to the quality and capacity of the system but rather the low

user acceptance of E-Government, even though technology presents benefits to organisations or society. Therefore, it is necessary to analyse the acceptance of e-government services by analysing the behaviour of its users to measure whether SIMPATIK acceptance at the Semarang City Manpower Service can be evaluated further or not.

The information system adoption model that focuses on the individual level is the Technology Acceptance Model (TAM), which was popularised by (Davis et al., 1989). The model explains that when a user is offered a new technology, several factors will influence the user's decision/intention to apply the technology, namely how useful the technology is (perceived usefulness), and the ease of use in using technology (perceived ease of use). However, this research only focuses on SIMPATIK acceptance at the Semarang City Manpower Service, so this research cannot be applied to other agencies even though it is still within the scope of Semarang City. It is hoped that with this SIMPATIK acceptance research, the application can still exist and be used for various services by ASN at the Semarang City Manpower Service.
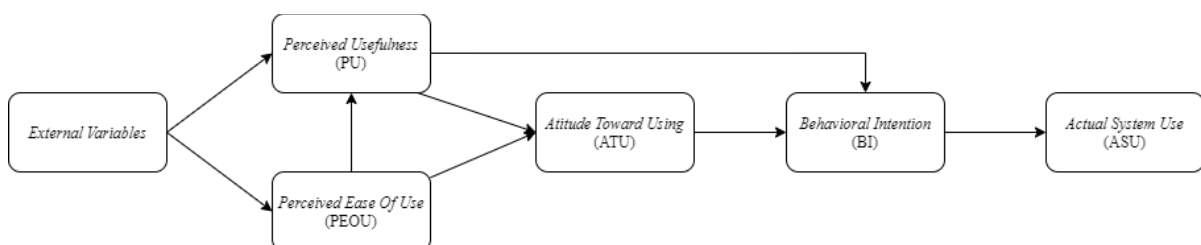
1.1   Technology Acceptance Model (TAM)

Technology Acceptance Model (TAM) is a form of technology adoption originating in the previous form, namely Theory of Reasoned Action (TRA) by Fishbein et al. (1977) which is applied to review the level of use of respondents on technology acceptance. TRA is enhanced from the basic assumption that each individual consciously behaves independently and monitors the use of available information to apply it in his own life. With a strong theoretical foundation through TRA, in 1986 Davis improved TRA into a form of TAM. TAM is a type of idea that applies the behavioural idea approach (behavioural theory) which is popularly applied to assess the process of implementing technology.

According to (Davis et al., 1989; Fatmawati, 2015) The TAM design is an idea that provides a basis for studying and exploring the behaviour of technology users when using and accepting the technology provided. The TAM form was developed on the basis of the psychological concept, which explains the behaviour of technology users based on belief, attitude, intention, and user behaviour relationship.

The purpose of TAM is to describe the determinants of the overall adoption of information-based technology and also to explain the broad and defined end user behaviour towards information technology regarding the influence of external factors on the psychological basis (Davis et al., 1989). TAM was developed to achieve this goal by identifying a number of key variables obtained from previous research on theory and determinants of technology adoption and by applying TRA as a basic theory to describe the relationship between variables.

According to Venkatesh dan Davis (2000) TAM tends to be simple in its application than other forms. This is in line with the advantages of TAM, namely that it prioritises an economical form or can be said to be a simple but still valid form. TAM only interprets the clause relationship between behaviour and belief (benefits and convenience of an information system), the goal is also the real use of information system users (Noviarni, 2014). TAM is believed to be able to predict technology adoption by users based on the consequences of two factors, namely PU and PEOU (Davis et al., 1989). Figure 1 is a TAM model.

Figure 1. Technology Acceptance Model (TAM) (Davis et al., 1989)

1.2   Perceived Ease of Use (PEOU)

According to (Agustian & Syafari, 2014; Davis et al., 1989) Perceived ease of use is a measure of how confident each individual is that technology can be easily used and understood to ease the work. Perception of ease of use is used to emphasise users where the information technology applied is

easy and does not burden them. Information technology that is easy to be applied by the government and used by users to use government online services.

Davis et al. (1989) describes PEOU as the degree to which individuals believe using a particular system can free themselves from the burden of doing work. The frequency of use and the relationship between the user and the system shows the ease of use. The most commonly applied systems show that the system is more familiar to users, and easier to use. PEOU index proposed by Davis et al. (1989) that is; ease to learn, controllable, understandable and clear, flexible, easy to be competent, ease to use.

1.3 Perceived Usefulness (PU)

Confidence in use (perceived usefulness) is the standard by which the use of technology is expected to be useful for its users (Davis et al., 1989). Meanwhile, according to (Wang et al., 2003) describes usage confidence as a user-specific capability in the future where using a particular application system will improve performance in an organisational environment. Information technology will be used by an individual if that person has clear knowledge about the advantages or uses of the information technology (Thompson et al., 1991).

PU is a form of TAM construct that has been tested in research (Davis et al., 1989; Venkatesh & Davis, 2000). The results conclude that PU is experimentally proven which is able to explain why users use technology. Davis et al. (1989) describes several PU indexes, namely; useful, improve the ability of, work more quickly, increase productivity, make job easier, and effectiveness.

1.4 Attitude Toward Using (ATU)

Based on Davis et al. (1989); (Fatmawati, 2015) Attitude toward using in TAM is illustrated as an attitude to use the system in the form of accepting or rejecting if someone uses technology to do their job. Attitude factor is an aspect that influences a person's behaviour in accepting technology. ATU can be concluded that the attitude of supporting or rejecting the application of a technology can be used to guess a person's intention to use technology or can be interpreted as a user's assessment of his curiosity about the use of the technology.

1.5 Behavioural Intention (BI)

According to Fatmawati (2015) behavioural intention is the behavioural intention of technology users which creates a tendency for behaviour to continue to apply information systems continuously. Based on TAM theory, BI usage preferences are influenced by PU and PEOU. Thus, it can be interpreted that a person will be interested in using a technology if he thinks the technology can improve his performance and that the technology can also be used easily or with minimal effort. There are several indicators on the BI variable, namely, will market, recommend, and continue to use (Pratiwi & Indriani, 2017).

2 Method

To deal with the background and in order to obtain the research objectives, this research applies the research steps seen in Figure 2 below.
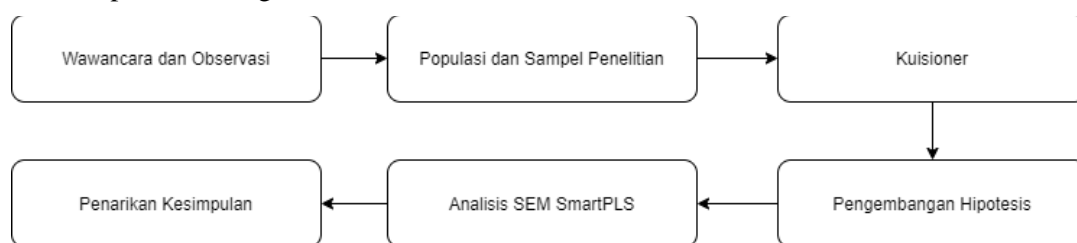
Figure 2. Stages of Research Method

In the interview, the researcher conducted consultations and asked questions directly with the instructor regarding SIMPATIK and the data needed. While the questionnaire was used to collect data on the answers of ASN at the Manpower Office of the City of Semarang regarding the questions used in this study.

This research, when viewed from the data collection process, is included in quantitative research. Meanwhile, when viewed based on the research objectives, this research applies explanatory research. Explanatory research is research that intends to describe the relationship between two or more variables by testing hypotheses (Putra & Bimo, 2015). It is hoped that by applying explanatory research, it will be able to describe the relationship and influence of the variables applied in this study. TAM is used as a general method in this study by applying four Latent Variables namely PU, PEOU, ATU, and BI.

2.1 Population and Research Sample

In this study, the population is ASN at the Semarang City Manpower Service. By applying Simple Random Sampling, based on Sugiono (2016) how to collect samples that are done randomly in a population.

The total population of ASN in the Semarang City Manpower Service is 47 people. So that the sample in this study can represent the population, in determining the number of samples in this study, apply the formula popularised by Slovin in (Tejada & Punzalan, 2012).

$$n = \frac{N}{1+Ne^2} \tag{1}$$

Where :

n = Sum of Samples

N = Sum of Population

e = The error rate in selecting sample members is 10%

So for ASN at the Semarang City Manpower Service the number of samples that must be used is:

$$n = \frac{47}{1+47(0,1)^2} = 31,97 = 32 \tag{2}$$

From the calculation of the sample above, a sample of 32 ASN employees of the Semarang City Manpower Service was taken.

2.2 Data, Instruments, dan Data Collection Techniques

The data used in this study is primary data, which is obtained through data collection techniques using questionnaires with Google Forms which are distributed to the ASN of the Semarang City Manpower Service. The questionnaire used in this study applied 4 (four) Latent Variables namely PU, PEOU, ATU, and BI and used 17 (Seventeen) question items. All question items are arranged using five alternative answers ranging from Disagree (TS) to Strongly Agree (SS). The scale in this study uses the form of a Likert scale then the data generated is an interval scale.

2.3 Hypothesis Development

1. *Perceived Usefulness* (PU)

A high PU presentation is expected to produce a positive attitude towards Attitude Toward Using (ATU) (Almukhlifi et al., 2018). PU is consistently found to be a direct determinant of Behavioural Intention (BI), and also influences BI of users indirectly as a direct determinant of ATU (Fu et al.) in (ElKheshin & Saleeb, 2020).

H1: PU has a positive impact on ATU in the use of SIMPATIK.

According to Davis et al. (1989), The user's intention to adopt and implement a particular technology depends not only on the attitude but also on how the user believes that the technology will provide all the required information or services. In this study, do ASN at the Semarang City Manpower Service believe that SIMPATIK can facilitate their work.

H2: PU has a positive impact on BI to use SIMPATIK.

2. *Perceived Ease Of Use* (PEOU)

The perception of PEOU is another determinant of ATU towards users in the TAM model. PEOU is an internal belief regarding a person's assessment of the mental effort involved in using

the system (Johar & Awalluddin) in (ElKheshin & Saleeb, 2020). Improved performance will result in increased PEOU.

**H3**: PEOU has a positive impact on ATU on SIMPATIK users.

According to ElKheshin dan Saleeb (2020), PEOU has been shown to influence behaviour in two ways: an indirect effect on behaviour through ATU and an indirect effect on behaviour through PU.

H4: PEOU has a positive impact on PU from SIMPATIK services.

3. *Attitude Toward Using* (ATU)

ATU is widely used to predict a user's likelihood of adopting a new technology. ATU tends to form positive or negative attitudes about new technologies regardless of whether they actually use the technology as an innovative system or not (ElKheshin & Saleeb, 2020).

H5 : ATU has a positive impact on BI in using SIMPATIK.
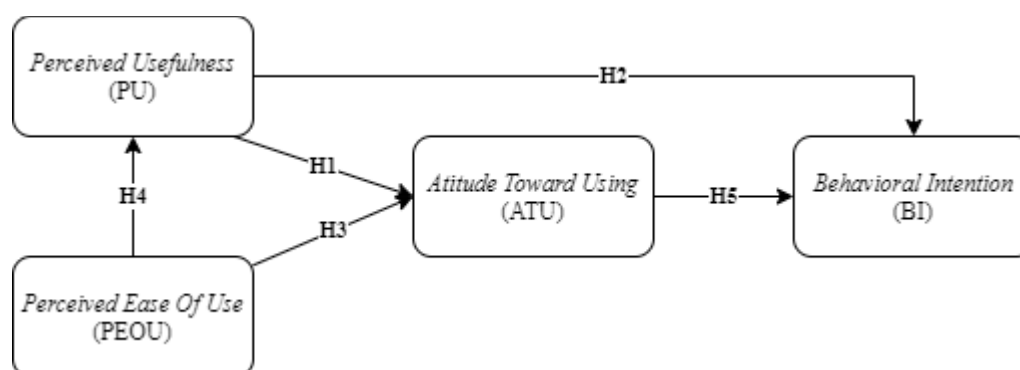
Figure 3. Research Hypothesis

2.4   Data Analysis Model

After all the data has been collected and the research sample has completed the minimum requirements, then the data is processed by applying the Structural Equation Model-partial Least Square (SEMPLS) data analysis method using the SmartPLS application version 3. SEMPLS is used because it can analyse data with minimal or large samples and is a powerful form of data analysis because it is not based on many assumptions, besides that SEMPLS is not required to use data with multivariate normal distribution (Ghozali & Latan, 2015). According to (Imam) in (Budiman, 2020) SEMPLS is able to unite the form of measurement (Outer Model) with structural form (Inner Model) together and efficiently when juxtaposed with other multivariates.

In the form of measurement using convergent and discriminant validity tests. Convergent validity is the relationship between a construct in the measurement that should be highly correlated (Jogiyanto & Abdillah, 2014). Convergent validity test in SEMPLS in terms of the value of the loading factor or the correlation between the items that assess the construct. The larger the loading factor, the better the loading contribution to the factor matrix depiction. The rule applied to convergent validity is that the outer loading is more than 0,7 however 0,5 – 0,6 can be tolerated (Ghozali & Latan, 2015). Next, to see the discriminant validity, use the Average Variance Extracted (AVE) value. can be said to be fulfilled if the AVE of the extracted mean version is greater than the relationship that includes the latent variable (Kock & Lynn, 2012). Or it can be interpreted that the measurement of the variable must be related to a greater degree when compared to its relationship to other variables. For reliability evaluation, two methods can be used, namely looking at composite reliability and Cronbach's alpha. A variable is recognized as reliable if the composite reliability and Cronbach's alpha meet the requirements > 0,7 (Hair Jr et al., 1998).

In examining the structural form (inner model) using the value of R-square (R2) on endogenous variables. According to Hair Jr et al. (1998) 0.67 can be interpreted well, 0,33 can be interpreted as moderate, and 0.19 can be interpreted less. The path coefficient values or t-values of each path are used to review the significance between variables in the structural model. The value of the inner

model interprets the level of significance in the hypothesis experiment (Jogiyanto & Abdillah, 2014). Hypothesis testing compares t-statistics > t-table with a two-tailed test with an acceptance of 0,05 with a t-table value of 1,96 or p-value < = 0,05 then the hypothesis is accepted. Otherwise the hypothesis is rejected. According to Ikhsania (2016) t-table value, at a 95% rating (alpha 5%) the t-table value used in the two-tailed hypothesis is 1,96.

3   Results and Discussion

The analysis begins with testing the outer model by conducting a convergent validity test on the value by reviewing the loading factor. The initial results of the convergent validity experiment can be seen in Figure 4 and Table 3. It is known that all items that make up PEOU and BI have a loading factor value > 0,5. Thus it can be interpreted that all of the items are valid and interrelated with the variables. In contrast to the PU and ATU variables which have one item each, namely PU5 and ATU3 with a loading factor value of < 0,5, namely 0,480 and 0,479. Thus, PU5 and ATU3 items have a low correlation with their respective variables, namely PU and ATU.
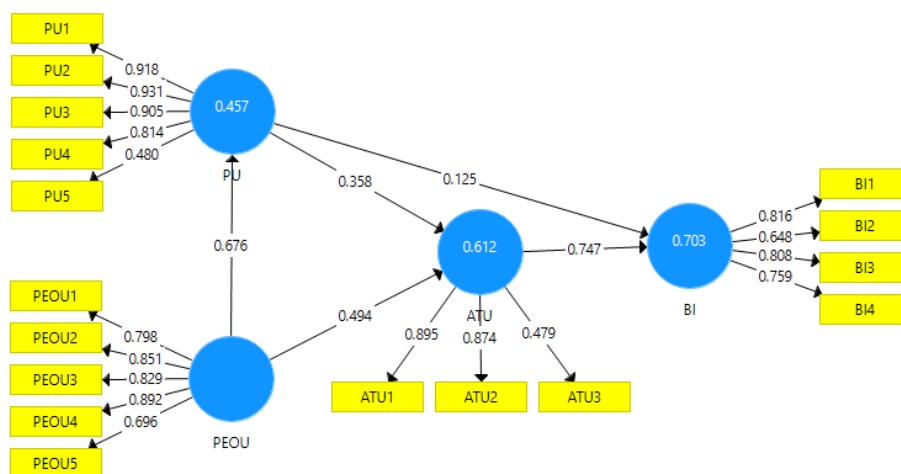

Figure 4. Outer Model

Meanwhile, in the discriminant validity test by looking at the AVE value, only the ATU variable, namely with a value of 0,774, did not meet the requirements as stated by Kock dan Lynn (2012) where the variable must be related higher when compared to its relationship with other variables. The AVE value that does not meet the test requirements may be caused by the factor loading value of the item that is not valid even though other variables such as PU with an AVE value of 0,827 have met the test requirements. For more details, see Table 2. Thus the ATU3 item must be removed from the model. This can be done if the extent to which the deletion of the item affects the validity of the content, however, items with weak factor loading are sometimes retained on the basis of their contribution to content validity (Hair Jr et al., 1998).
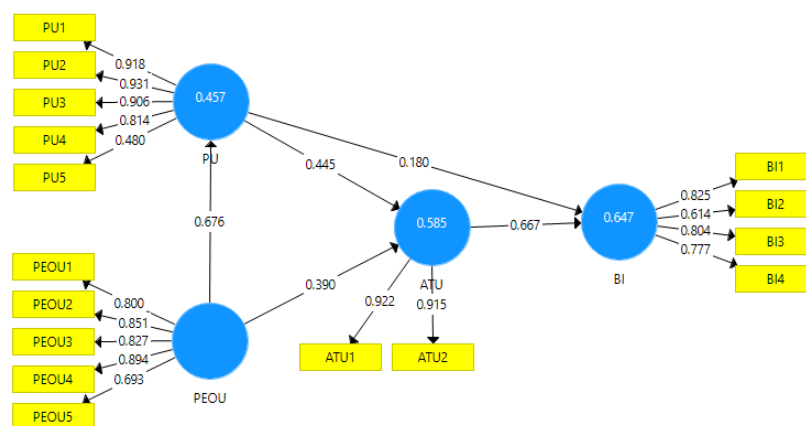

Figure 5. Revised Outer Model

Figure 5 is an updated outer model test after removing invalid items from the form. The discriminant validity test was reviewed by reviewing the AVE value. All AVE values after being revised show higher values in each variable compared to other variables. Namely, ATU is 0,918, BI is 0,760, PEOU is 0,816, and PU is 0,827. Thus, the discriminant validity test based on the AVE value is considered to meet the criteria. For clarity, the AVE values before and after the revision are reviewed in Table 1 and Table 2.

Table 1. Discriminant Validity

	ATU	BI	PEOU	PU
ATU	0.774	-	-	-
BI	0.834	0.761	-	-
PEOU	0.737	0.719	0.816	-
PU	0.693	0.643	0.676	0.827

Table 2. Revised Discriminant Validity

	ATU	BI	PEOU	PU
ATU	0.918	-	-	-
BI	0.794	0.760	-	-
PEOU	0.691	0.729	0.816	-
PU	0.709	0.653	0.676	0.827

Table 3. Factor Loading Value

	ATU	BI	PEOU	PU
ATU1	0,922	-	-	-
ATU2	0,915	-	-	-
BI1	-	0,825	-	-
BI2	-	0,614	-	-
BI3	-	0,804	-	-
BI4	-	0,777	-	-
PEOU1	-	-	0,800	-
PEOU2	-	-	0,851	-
PEOU3	-	-	0,827	-
PEOU4	-	-	0,894	-
PEOU5	-	-	0,693	-
PU1	-	-	-	0,918
PU2	-	-	-	0,931
PU3	-	-	-	0,906
PU4	-	-	-	0,814
PU5	-	-	-	0,480

The reliability test was carried out using two methods, namely by reviewing Cronbach's alpha and composite reliability. For Cronbach's alpha the ATU variable is more than 0,7 at 0,817, BI > 0,7 is 0,755, PEOU > 0,7 is 0,872, and PU > 0,7 is 0,872. Meanwhile, the composite reliability value for

each variable ATU > 0,7 is 0,915, BI > 0,7 is 0,844, PEOU > 0,7 is 0,908, and PU > 0,7 is 0,912. With this, both of them show that each research variable has fulfilled the requirements in the Cronbach's alpha and composite reliability values. Based on this, it can be recognized that all the research variables used are valid and reliable. More clearly the value is reviewed in Table 4.

Table 4. Value of Cronbach's Alpha and Composite Reliability

	Cronbach's alpha	Composite reliability
ATU	0,817	0,915
BI	0,755	0,844
PEOU	0,872	0,908
PU	0,872	0,912
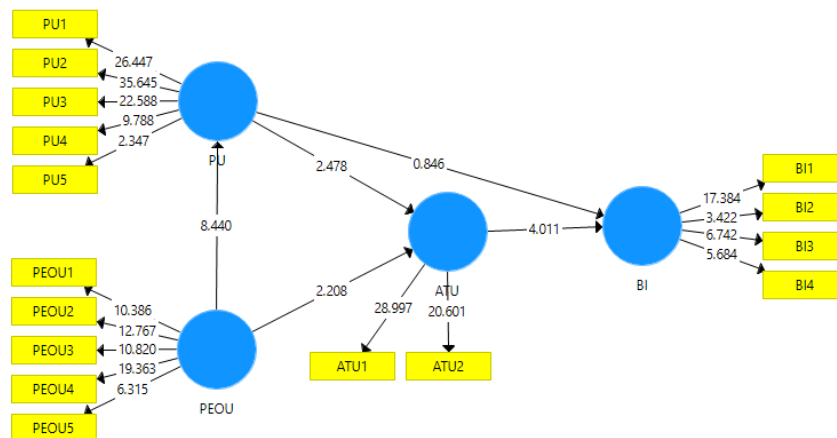
Figure 6. Inner Model

Then to test the inner model review the value of R-square (R2) for the dependent variable. The R-square value of each endogenous variable can be viewed in Table 5.

Table 5. R-square Value

	R-square
ATU	0,585
BI	0,647
PU	0,457

From Table 5 above, it can be explained that:

1. The ATU variable can be explained by the PU and PEOU variables with a value of 58,5 percent, the remaining 41,5 percent is explained by other variables outside this study.

2. The BI variable is described by the PU and ATU variables of 64,7 percent, the remaining 35,3 percent is described by other variables outside of this study..

3. The PU variable is explained by the PEOU variable by 45,7 percent while 54,3 percent is explained by other variables outside this study.

To review the hypothesis by comparing t-statistics > t-table with a two-tailed test with an acceptance of 0,05 with a t-table value of 1,96 or p-value < = 0,05, the hypothesis is accepted. If t-statistics < t-table the hypothesis is rejected. Table 6 is the result of testing the relationship between variables which will explain whether the hypothesis is accepted or rejected.

Table 6. Path Coefficients and Hypothesis Test

	Original Sample (O)	T-Statistics	P Values	Significance	Conclusion
ATU -> BI	0,667	4,011	0,000	Significant	Accepted
PEOU -> ATU	0,390	2,208	0,028	Significant	Accepted
PEOU -> PU	0,676	8,440	0,000	Significant	Accepted
PU -> ATU	0,445	2,478	0,014	Significant	Accepted
PU -> BI	0,180	0,846	0,398	Not significant	Rejected

Table 7. Total Indirect Effects

	Original Sample (O)	T-Statistics	P Values	Significance	Conclusion
PEOU -> ATU	0,301	2,095	0,037	Significant	Accepted
PEOU -> BI	0,583	4,818	0,000	Significant	Accepted
PU -> BI	0,297	1,861	0,063	Not Significant	Rejected

a. PU has a positive impact on ATU in the use of SIMPATIK

Hypothesis 1 (H1) declares that PU has a positive impact on ATU or on the use of SIMPATIK. In Table 6 it can be seen that the hypothesis 1 experiment obtained a T-Statistics value of 2,478. Where the value is more than the t-table value (1,96). And the p-value is less than 0,05 by 0,014 so that the experiment can be notarized as significant and accepted. Thus, it can be interpreted that the PU (perceived usefulness) variable of the five items has an influence on the SIMPATIK ATU (attitude towards using).

b. PU has a positive impact on BI to use SIMPATIK

Hypothesis 2 (H2) states that PU has a positive impact on BI to use SIMPATIK. In table 6, it can be seen that the hypothesis 2 experiment obtained a T-Statistics value with a value of 0,846. Where it is less than the t-table value (1,96). And the p-Values value is greater than 0,05 by 0,398 so that the test can be notarized as significant and rejected. In Table 7, the indirect effect between PU and BI through ATU is also rejected where the T-Statistics value <1,96 is 1,861 and the P-Values is more than 0,05 with a value of 0,063. Thus it can be interpreted that the PU (Perceived Usefulness) variable does not have a direct or indirect influence on BI (behavioural intentions) to use SIMPATIK.

c. PEOU has a positive impact on ATU on SIMPATI users

Hypothesis 3 (H3) declares that PEOU has a positive impact on ATU on SIMPATIK users. In Table 6, it can be seen that the third hypothesis experiment obtained a T-Statistics value of 2,208. Where the value is more than the t-table value (1,96). And the p-Values value is less than 0,05 by 0,028 so that the experiment can be notarized as significant and accepted. In Table 8, the indirect effect between PEOU and ATU through PU is also accepted, where the T-Statistics value > 1,96 is 2,095 and the P-Values is less than 0,05 with a value of 0,037. It can be concluded that PEOU (perceived ease of use) has a direct or indirect influence on ATU (attitude towards using) in using SIMPATIK.

d. PEOU has a positive impact on PU from SIMPATIK services

Hypothesis 4 (H4) declares that PEOU has a positive impact on PU from SIMPATIK services. In Table 6 it can be seen that the hypothesis 4 experiment obtained a T-Statistics value of 4,011. Where the value is more than the t-table value (1,96). And the p-Values value is less than 0,05, which is 0,000. This means that the experiment can be said to be significant and acceptable. This

means that PEOU (perceived ease of use) has an effect on PU (perceived usefulness) in using SIMPATIK..

e. ATU has a positive impact on BI in using SIMPATIK

Hypothesis 5 (H5) states that ATU has a positive impact on BI in using SIMPATIK. In Table 6, it can be seen that the hypothesis 5 experiment obtained a T-Statistics value of 8,440. Where the value is more than the t-table value (1,96). And the p-Values value is less than 0,05 by 0,000, so the experiment can be said to be significant and accepted. It can be said that ATU (attitude towards using) has an influence on BI (behavioural intention) to use SIMPATIK.

4   Conclusion

This study discusses ASN acceptance of SIMPATIK at the Semarang City Manpower Service using the TAM model by applying four research variables Perceived Usefulness, Perceived Ease Of Use, Attitude Toward Using, and Behavioural Intention. Based on the results of the study, it is known that perceived usefulness has an influence on attitude towards using SIMPATIK, but perceived usefulness does not have a direct or indirect effect on behavioural intentions to use SIMPATIK. Thus, it is important for the Semarang City Manpower Office to increase understanding of the importance of the benefits obtained from the use of SIMPATIK for ASN. So that SIMPATIK can continue to be used for various kinds of services in the application by ASN at the Semarang City Manpower Service.

In addition, the perceived ease of use has been shown to be able to have a direct or indirect influence on attitude towards using SIMPATIK. And the perceived ease of use also has an influence on the perceived usefulness in using SIMPATIK. It can also be said that users think that SIMPATIK is easy to use. Next, attitudes towards use have also been shown to have an influence on behavioural intentions to use SIMPATIK. This can be interpreted that the user's good attitude towards SIMPATIK can affect the user's intention to adopt the application.

References

Agustian, W., & Syafari, R. (2014). Pendekatan technology acceptance model (tam) untuk mengidentifikasi pemanfaatan internet usaha kecil dan menengah sumatera selatan, *4*(1).

Almukhlifi, A., Deng, H., & Kam, B. (2018). E-government adoption in saudi arabia: The moderation effect of wastta, CONF-IRM.

Budiman, K. (2020). Analisis keberterimaan pengguna terhadap penerapan online assesment tool ditengah pembatasan sosial covid-19 menggunakan technology acceptence model, Seminar Nasional Ilmu Komputer 2020.

Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: A comparison of two theoretical models. *35*(8), 982-1003.

ElKheshin, S. A., & Saleeb, N. (2020). Assessing the adoption of e-government using tam model: Case of egypt. *12*(1), 1-14.

Fatmawati, E. (2015). Technology acceptance model (tam) untuk menganalisis penerimaan terhadap sistem informasi di perpustakaanm informasi perpustakaan. *Iqra: Jurnal Perpustakaan dan Informasi*, *9*(1).

Fishbein, M., Ajzen, I., & Rhetoric. (1977). Belief, attitude, intention, and behavior: An introduction to theory and research. *10*(2).

Fu, J.-R., Farn, C.-K., & Chao, W.-P. (2006). Acceptance of electronic tax filing: A study of taxpayer intentions. *43*(1), 109-126.

Ghozali, I., & Latan, H. (2015). Konsep, teknik dan aplikasi menggunakan program smart pls 3.0.

Hair Jr, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (1998). *A primer on partial least squares structural equation modeling (pls-sem)*. Sage publications.

Ikhsania, Z. (2016). Pengaruh implementasi internal marketing terhadap kinerja melalui kepuasan tenaga kependidikan di fakultas ekonomi dan bisnis universitas brawijaya malang. *1*(2), 59-69.

Imam, G. (2011). Aplikasi analisis multivariate dengan program ibm spss 19. *68*.

Jogiyanto, H., & Abdillah, W. (2014). Konsep dan aplikasi pls (partial least square) untuk penelitian empiris.

Johar, M. G. M., & Awalluddin, J. A. A. (2011). The role of technology acceptance model in explaining effect on e-commerce application system. *3*(3), 1-14.

Jonar, H. M. (2017). Analisis penerimaan sistem informasi manajemen kepegawaian (simpeg) dalam mendukung penerapan e-government pada badan pusat statistik provinsi sumatera barat. *19*(2), 121-132.

Kock, N., & Lynn, G. (2012). Lateral collinearity and misleading results in variance-based sem: An illustration and recommendations. *13*(7).

Noviarni, E. (2014). Analisis adopsi layanan internet banking oleh nasabah perbankan di pekanbaru (technology acceptance model) eni noviarni. *10*(1), 26-39.

Pratiwi, M. T., & Indriani, F. (2017). *Analisis pengaruh technology readiness terhadap minat menggunakan tcash di kota semarang,* Diponegoro University.

Putra, S., & Bimo, G. (2015). Pengaruh citra perusahaan terhadap minat berkunjung dan keputusan berkunjung (survei pada pengunjung taman rekreasi pt. Selecta, kota batu, jawa timur). *26*(2).

Sugiono, S. J. B. A. (2016). Metode penelitian kuantitatif, kualitatif, dan r & d.

Tejada, J. J., & Punzalan, J. R. B. (2012). On the misuse of slovin's formula. *61*(1), 129-136.

Thompson, R. L., Higgins, C. A., & Howell, J. M. (1991). Personal computing: Toward a conceptual model of utilization. 125-143.

Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *46*(2), 186-204.

Wang, Y. S., Wang, Y. M., Lin, H. H., & Tang, T. I. (2003). Determinants of user acceptance of internet banking: An empirical study.