

# Understanding the Determinants of User Acceptance of the Village Asset Management Systems: A Job-Concurrent Perspective

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## Abstract

*This study investigates the determinant of the perceived ease of use and perceived usefulness in predicting behavioral intention in using Village Asset Management Systems (VAMS) Application. We integrated the Technology Acceptance Model 3 (TAM 3) with additional determinants of PEU and PU, namely internal computer training and external computer training. 102 respondents were surveyed, and data were analyzed using the partial least squares structural equation modeling (PLS-SEM) approach.*

*The results showed that all TAM constructs were influential; external variables subjective norms, output quality, internal computer training, and external computer training have an effect on perceived usefulness; variable perception of external control, internal computer training, and external computer training have an impact on the perceived ease of use. Interestingly, job relevance, computer self-efficacy, and external computer training did not affect perceived usefulness and perceived ease of use in influencing behavioral intention using the VAMS for concurrent users. The practical implications for village government dan local Government are that adoption processes of technology that in the process of adopting technology, so that behavioral intention in using VAMS increases, commitment is needed from both the government and professional organizations to carry out continuous training.*

**Keywords:** TAM 3, perceived usefulness, perceived ease of use, internal computing training, external computing training

## Introduction

Indonesian Law, Undang-Undang No. 6, 2014 urges village governments to independently manage their village finances and assets. In assisting the implementation of village financial management, the Government launched the Village Financial Systems (VFS) application. However, in its implementation, VFS is not able to overcome the problem of managing village assets. Then, the Indonesian Government issued the mandate of regulation of the minister, namely Permendagri No. 1, 2016, which specifically regulates the management of village assets includes a series of activities starting from planning to monitoring and controlling village assets. To assist in achieving this goal, the Government then launched the Village Asset Management Systems (VAMS) application on March 22, 2018, intended to facilitate the recording of village asset management.

At the initial implementation stage of an application, several behavioral aspects of accepting or rejecting the system will appear in application users (Winarno and Putra, 2020). Moreover, some village officials in Indonesia use the VAMS application as well as users of the VFS systems. In this condition, the user is faced with the complexity of working on a job-concurrent in multiple positions. Implementing new systems, individual behavior becomes an essential factor to consider because the level of readiness of users to accept the new system and employee attitudes towards the new system has a major influence on the success or failure of the system

implementation (Febrianti et al., 2019). In the Technology Acceptance Model (TAM), predicting the acceptance of the use of technology is mainly determined by the perceived ease of use (PEU) and perceived usefulness (PU) of the system and technology being implemented (Davis, 1989, Venkatesh and Bala, 2008, Winarno et al., 2021). To get high acceptance from users, a system that is being implemented must go through a training process, have good output quality, and have high relevance to the job.

Several studies have used the TAM concept, both TAM2, and TAM3, to predict technology acceptance in the government context. From TAM 3, many determinants can be used to predict PEU and PU. As an example, subjective norms factors, output quality, experience, computers self-efficacy are variables used to predict perceived ease of use and perceived usefulness in the Government Financial Information Systems (GFRIS) (Maksum et al., 2017, Winarno and Putra, 2020, Sipior et al., 2011, Lin et al., 2011). Job relevance factors, output quality from the application, and perception of external control factors have also been used as determinants of behavioral intention in using applications in the Local Government (Febrianti et al., 2019, Putra et al., 2020). However, two important things can be underlined from several studies in Indonesia, the first, the results still provide varying results in predicting technology acceptance in Government. Second, based on the results of our search of the literature, no previous studies have considered computer and application training, both internally and externally, in using

applications that are often carried out in Government as predictors of PEU and PU in increasing interest in behavior using technology (Agarwal and Prasad, 1999).

This study aimed to investigate the determinant of PEU and PU to increase behavioral intention in using VAMS. The constructs proposed as determinants of the PEU include subjective norms, job relevance, output quality, internal computer training, and external computer training. Furthermore, the predictors of PEU proposed in this study are computer self-efficacy, perception of external control, internal computer training, and external computer training. This research potentially provides several contributions. First, Internal and external training, which are rarely predictors of PEU and PU in the government context, is expected to explain behavioral intention in using VAMS in village governments. This condition is expected to provide an additional explanation from the perspective of the organization. Second, This study explains behavioral intention from the job-concurrent perspective.

## Literature Review and Hypotheses Development

### E-government and Village Asset Management

E-government is a governance concept based on Information Communication and Technology that provides participation and transparency to the public effectively and efficiently in serving citizens, entrepreneurs, and other government bodies (Mohammed et al., 2016, Stefanovic et al., 2016). E-government uses information technology for internet users to carry out government affairs, provide better public services, and orientation to community service (Sari and Winarno, 2012).

In order to improve e-government services in asset management, the central Government launched an application intended to make it easier to manage village assets called the Village Asset Management Systems (VAMS) application. VAMS is a tool that records the administration of village assets which is designed according to the mandate of Permendagri No. 1, 2016 regarding the management of village assets. VAMS was created to provide convenience in managing transparent and accountable village assets. VAMS contains planning, procurement, administration, up to the presentation of reports that have been completed with the codification and labeling of village assets that are adjusted to the general guidelines for village asset codification.

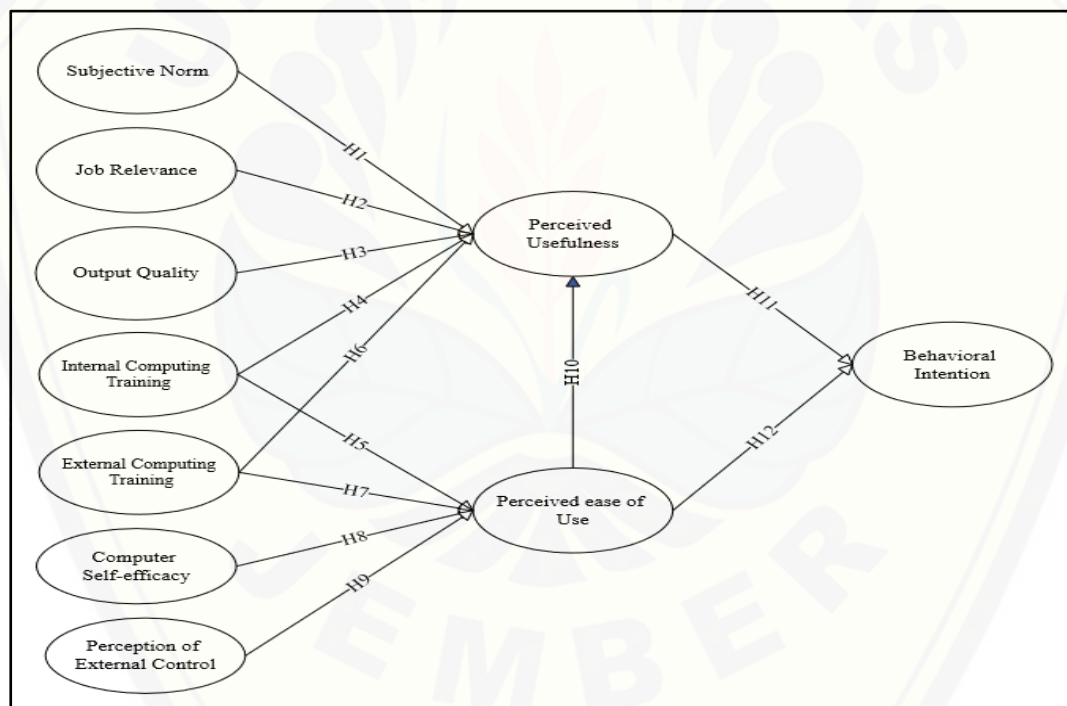


Figure 1: Proposed Model - Extension of the Technology Acceptance Model in the Government Sectors

### Technology Acceptance Model (TAM)

Technology Acceptance Model (TAM) is specifically designed to model user acceptance of information technology systems (Davis, 1989, Davis et al., 1989). TAM's purpose is to explain the determinants of various end-user computing technologies and user populations (Winarno et al., 2021). TAM provides the basis for determining the influence of external factors on users' beliefs, attitudes, and goals (Marangunić and Granić, 2015). According to the TAM model, the behavioral intention of technology users is determined by the perceived

usefulness and perceived ease of use of the technology (Davis, 1989, Venkatesh and Bala, 2008). Perceived usefulness explains the extent to which a person thinks that his performance can increase by using a system. The second construct is perceived ease of use, which describes how a person thinks using a particular system will free him from the effort. Furthermore, behavioral intention is an explanation of a person's willingness to use the system in the future, and actual usage is an explanation of the actual conditions in which the system is used (Davis, 1989, Davis et al., 1989, Venkatesh and Bala, 2008, Sereenonchai et al., 2017).

## Organizational Factor

Organizational factors are external variables used in the research of Igbaria et al. (1997) "Personal Computing Acceptance Factors in Small Firms: A Structural Equation Model" This study aimed to determine the relationship between organizational factors, perceived ease of use, perceived usefulness on the acceptance of the use of personal computing.

These organizational factors are intra-organizational factors and extra organizational factors. Intra organizational factors include internal computing support, internal computer training, and management support. Extra organizational factors include external computing support and external computing training. Igbaria et al. (1997) stated that top management support and external factors, e.g., external computing training, are more powerful determinants of perceived ease of use and usefulness in the information systems implementation. Extraorganizational factors, especially in the public sector, become a major determinant factor in successful IS implementation (Winarno and Putra, 2020).

Figure 1 presents the research model that integrated the theoretical perspective from TAM 3 (Venkatesh and Bala, 2008) and organizational factors in the IS implementation (Igbaria et al., 1997).

## Hypotheses Development

### Subjective Norm and Perceived Usefulness

Subjective norms are human perceptions when they think they need to do something (behavior) or not (Davis, 1989, Venkatesh and Bala, 2008). Subjective norms will increase the perceived usefulness of a person in using a system (Winarno et al., 2021). As the theory of planned behavior (TPB), subjective norms are determinants of intention in using technology (Ajzen, 1991). Furthermore, subjective norms can directly affect behavioral intention in using information systems and technology, especially in mandatory settings (Venkatesh and Davis, 2000). The influence of subjective norms in the acceptance of VAMS applications is that VAMS operators influence other staff to invite them to use VAMS. In this case, the VAMS operator gives trust and provides information to other staff in using VAMS, so it is hoped that these staff can benefit from using VAMS. The use of the system in the government environment will be heavily influenced by the community of fellow users of the application and the support of the leadership (Venkatesh and Bala, 2008). The association of VAMS application users, which is formed based on friendship, professional colleagues and social environment, will affect the work behavior of operators in using VAMS applications. Winarno et al. (2021) state the higher the social influence felt by the operator to behave using VAMS, the higher the perceived usefulness of the VAMS application. Based on this explanation, it can be hypothesized as follows.

H1: Subjective norm has a positive effect on perceived usefulness in using VAMS

### Job Relevance and Perceived Usefulness

Job relevance is defined as a person's perception of the extent of the importance of information and technology in helping or influencing the job (Venkatesh and Bala, 2008). Meanwhile, job relevance is a form of compatibility between tasks and technology and can be used as a basis for using assessment to measure the success of an information system (Kim, 2008). Improved performance will prove this success, especially the performance of individuals in the organization (Winarno and Putra, 2020). The suitability of tasks in managing village assets with the VAMS application, makes users feel that technology is increasingly useful for operators in

completing their tasks. The effect of job relevance on the acceptance of VAMS applications is that VAMS operators feel that this application is important and in accordance with their work so that they use the VAMS application. Using the VAMS application, user performance can also be measured, marked by increasing user performance in using systems. This performance improvement will make the VAMS operator feel that the application is helpful in getting their job done. Thus, the hypothesis is presented as follows.

H2: Job relevance has a significant effect on perceived usefulness in using VAMS

### Output Quality and Perceived Usefulness

The output quality is the level of a person's belief that an information system or technology used by they will give a good result for the job (Venkatesh and Bala, 2008). Meanwhile, according to (Faqih and Jaradat, 2015, Putra et al., 2020), output quality is a person's perception of how well a system completes its tasks related to the individual's work. The VAMS application contains a sub-system consisting of the planning, procurement, administration, and reporting processes that have been completed with the codification and labeling of village assets. At these stages, it is in accordance with the Minister of Home Affairs Regulation which shows that the VAMS application provides a quality system and of course the output also provides quality information. The high output quality of the VAMS application will result in a higher level of productivity. High quality will give the perception that the VAMS application provides benefits for users. Therefore, our hypothesis is stated as follows.

H3: The output quality has a significant effect on the perceived usefulness of VAMS

### Internal Computing Training, Perceived Ease of Use and Perceived Usefulness

Internal computer training is training carried out by parties within the organization. This training is a form of technical support owned individually or in groups on internal computer knowledge in small companies (Igbaria et al., 1997). This training is a form of technical support owned individually or in groups on internal computer knowledge in small companies (Igbaria et al., 1997). The effect of internal computer training in accepting VAMS applications is that with computer training conducted by the Village Government internally, it is hoped that VAMS operators/users will have a higher level of understanding of the application of this application. The internal training aims to increase in-depth understanding and skills in the use of VAMS applications. Internal and ongoing technical support makes the users feel that the application is easier to use and ultimately increases the usability of the VAMS application. Conducting regular training is expected to increase the perceived ease of use and perceived usefulness of the VAMS Application (Sharma and Yetton, 2007). Therefore, the hypotheses are stated as follows.

H4: Internal computing training has a significant effect on the perceived usefulness of VAMS

H5: Internal computing training has a significant effect on perceived ease of use VAMS

### External Computing Training, Perceived Ease of Use, and Perceived Usefulness

External computer training is training carried out by parties outside the organization. This training is an individual or group-owned technical support on internal computer knowledge in small companies (Igbaria et al., 1997). With external training, it will increase the level of success of using an adequate system.

The existence of high external training will increase the level of success in using the system, which is quite adequate. The effect of external computer training in accepting VAMS applications is that external training can increase the frequency of understanding VAMS users (Sharma and Yetton, 2007).

Professional organizations and consultants, have competence, experiences, capabilities and good understanding of regulations regarding village asset management, and the use of VAMS applications. External training is carried out by special consultants such as the Professional Organization of the Institute of Indonesia Chartered Accountants will improve understanding and increase the level of success of the perceived usefulness of this application. Professional organizations that carry out training and assistance in structured VAMS implementation will broaden the understanding of concept asset management. External computing training will also accelerate the technical understanding of using the VAMS application for operators, and will support the lack of technical expertise of internal trainers. Based on this explanation, it can be hypothesized as follows.

H6: External computing training has a significant effect on the perceived usefulness of VAMS

H7: External computing training has a significant effect on perceived ease of use VAMS

### Computer Self-efficacy and Perceived Ease of Use

Computer Self-efficacy is an essential factor that must be considered in user adoption and acceptance of information technology (Faqih and Jaradat, 2015). Computer self-efficacy is defined as how a person believes they can perform tasks using a computer (Venkatesh and Bala, 2008). Furthermore, CSE defines it as a physical or emotional perception, where someone who has low self-confidence will damage his motivation so that he thinks and feels that someone cannot complete his duties or work, especially those related to computers, will be difficult to apply.

The effect of belief in using a computer in accepting the VAMS application is the operator's belief in the abilities possessed in using the VAMS application. The high confidence that VAMS application operators have will help make it easier to use this application. Therefore, the hypotheses are stated as follows.

H8: Computer self-efficacy has a significant effect on perceived ease of use VAMS

### Perception of External Control and Perceived Ease of Use

Perception of external control is the level of belief or a person's perception that the existing infrastructure or other things exist to support the use of an information system (Venkatesh and Bala, 2008). The influence of the perception of external control in the acceptance of the VAMS application is that operators feel confident to use this application because the required facilities are complete, such as a computer (Faqih and Jaradat, 2015). In addition to the main facilities, VAMS operators are also accustomed to using electronics and online-based applications. The completeness of facilities and resources to support the use of the VAMS application will increase the perceived ease of use for this application. Thus, the hypothesis is presented as follows.

H9: Perception of external control has a significant effect on perceived ease of use VAMS

### Perceived Ease of Use and Perceived Usefulness

Perceived ease of use is an individual's belief that applying a system will not happen in trouble and would be very easy (Venkatesh and Bala, 2008). Users feel that using a technology system can free them from effort (Davis, 1989, Winarno et al., 2021). The ease of use of an application system developed by the Government will increase the perception of the usefulness of its users (Winarno and Putra, 2020). The effect of the ease of using the VAMS application is that the operator feels that the VAMS application is easy to use, does not require much effort to use, and is easy to understand. The convenience that arises will increase the usability of the VAMS application so that operators can use the application as desired, and allow users to benefit from using the VAMS application. Based on this explanation, it can be hypothesized as follows.

H10: Perceived ease of use has a significant effect on perceived usefulness VAMS

### Perceived Usefulness and Behavioral Intention

Davis et al. (1989) stated that if a person feels that technology is useful, his desire to use the system will increase. Behavioral intention is a behavioral tendency to continue using technology. Winarno and Putra (2020) stated that increasing perceived usefulness in utilizing system applications in the government environment will increase behavioral intention in using these applications. The effect of usability in using the VAMS application is that the VAMS operator feels that his work performance improves when using the VAMS application. Operator work becomes more efficient and effective so that productivity increases when using VAMS. This perception will increase the user's intention in using VAMS because this application can provide useful functions for the operator's work. Hence, the hypotheses are stated as follows.

H11: Perceived usefulness has a significant effect on behavioral intention to use VAMS

### Perceived Ease of Use on Behavioral Intention

According to Davis (1989), the perceived ease of use is that users feel that using a technology system can free them from the effort. A specific system will be used when users find it easy to use and pressure from the social environment (Putra et al., 2020). The effect of ease of use of the VAMS application is that users feel that the VAMS is easy to apply, easy to understand, and does not require much effort. Easiness is given by the VAMS that will generate intention for the operator to use it, so the interest in using VAMS will increase. Therefore, the hypotheses are stated as follows.

H12: Perceived ease of use influence significantly to the behavioral intention VAMS

## Research Method

### Sample and Data Collections

The population of this study is users of the VAMS application in village governments throughout the Situbondo Regency. The reason for selecting the population is that the Situbondo district government has carried out complete training both from internal parties from the central Government and external training about VAMS application from professional organizations, namely the Institute of Indonesia Chartered Accountants-IAI in November 2019. The training that users have received from both internal and external parties is expected to provide an in-depth

understanding of the VAMS application so that users already perceive the ease and usefulness of the VAMS application. Selected samples that meet the criteria are 102 users of the VAMS application, both concurrently with other applications and users specifically for the VAMS application.

## Measurement

This study's measurement of TAM 3 variables adopted the existing measures in previous studies (Venkatesh and Bala, 2008, Chang et al., 2017, Winarno et al., 2021). While measuring internal and external training variables, using measurements developed by (Igbaria et al., 1997). All items that address constructs' scales in the model are based on a five-point Likert scale. To ensure that the measured variables (indicators) are derived from the constructs of the research model, validity and reliability tests are carried out as presented in table 2.

## Data analysis method

The models for this study were tested using PLS-SEM. The

PLS-SEM method is widely used in management information systems disciplines (Hair et al., 2017, Marcoulides and Saunders, 2006) because it allows researchers to estimate complex models with many constructs, especially unobservable conceptual variables (Rigdon et al., 2017), small sample sizes (Hair Jr et al., 2017, Hair et al., 2017, Goodhue et al., 2006), and research objective is to better understand increasing complexity by exploring established theoretical and model extensions (Hair et al., 2019, Hair et al., 2011). In addition, manifest variables and structural paths do not require following certain distribution assumptions (Hair et al., 2019, Hair et al., 2017, Chin, 1998, F. Hair Jr et al., 2014).

## Results and Discussion

### Respondents Demography

Table 2 summarises the demographic characteristics of survey respondents that provide information about the characteristics of respondents based on gender, position, occupation, and intensity of training.

Classification	Item	Frequency	Percent(%)
Gender	Woman	85	83.3
	Man	17	16.7
Position	Village secretary	18	17.6
	Staff	9	8.8
	VAMS Operator Staff	41	40.2
	General Affairs and Administration	11	10.8
	Finance Officer	1	1
	Planning Department	9	8.8
	Head of Government	8	7.8
	Head of People's Welfare	4	4
Job	Head of Service	1	1
	VAMS Operators	46	45
	VAMS operator concurrently VFS operator	51	50
	VAMS Operator concurrently DTD-AKP Operator	2	2
	VAMS Operator concurrently Circa Operator	1	1
	Treasurer concurrently VAMS Operator	1	1
Training	Other Coordinator concurrently VAMS Operator	1	1
	1	18	17.6
	2	56	54.9
	3	12	11.8
	4	11	10.8
	5	1	0.98
	6	2	1.96
	7	1	0.98
8	1	0.98	
Total		102	100

Table 1: Respondents Demography

In this study, it is known that most of the respondents are male, with a total of 85 people. The positioning structure in the Village Government is mainly the staff of VAMS operators, totaling 41 people. Meanwhile, most respondents work as operator VAMS concurrently VFS with the number 51 and 56 respondents have trained VAMS 2 times.

## Analyses of Measures

The sample subgroups were split into a pure VAMS operator group and a concurrent VAMS operator group. After being in the subgroup, a small sample size was obtained, which was below 100, consisting of 46 VAMS operators and 56 concurrent VAMS operators. Because the sample size is below 100, the

researcher in this test uses a variance-based SEM basis, namely PLS (Partial Least Square) with SmartPLS 3.3.3 software.

PLS-SEM is a variant-based structural equation model, which can be applied or used at all data scales, does not require many assumptions, and the sample size does not have to be large (Hair et al., 2019, Hair et al., 2017). The sample size factor that does not have to be large is the reason the researcher uses PLS-SEM data analysis (Hair et al., 2017). Based on the sample group test results, this study found that the main test results consistently showed the same results as the test results of the sample subgroup who also served as VAMS operators. The following SmartPLS test results evidence this:

Variables	Full Sample – Job-Concurrent			Sub Sample – VAMS User Only		
	AVE	Composite Reliability	Cronbach's alpha	AVE	Composite Reliability	Cronbach's alpha
SN	0.902	0.949	0.892	0.941	0.971	0.941
JR	0.743	0.920	0.884	0.908	0.936	0.908
OQ	0.764	0.866	0.713	0.870	0.778	0.870
CSE	0.688	0.869	0.773	0.793	0.870	0.793
PEC	0.724	0.912	0.870	0.729	0.914	0.875
ICT	0.821	0.948	0.928	0.725	0.913	0.876
ECT	0.881	0.967	0.954	0.805	0.943	0.919
PU	0.708	0.907	0.863	0.753	0.924	0.890
PEU	0.667	0.889	0.834	0.650	0.880	0.815
BI	0.753	0.901	0.834	0.709	0.879	0.795
AU	0.582	0.847	0.758	0.525	0.808	0.750

Table 2: Results of the PLS Algorithm VAMS Operator Concurrent vs. sub-sample – VAMS user only

In this study, to estimate the reflective measurement model, we used Cronbach's alpha, composite reliability, and average variance extracted (AVE) values (Hair et al., 2019). On the table 2 shows the AVE value > 0,5 and construct reliability and validity of > 0.7. Thus, these results indicate that the entire construct has passed the validity and reliability tests.

## Hypothesis Testing and Structural Model

The next stage in data analysis research was to examine the significance and strength of each construct's hypothesized impact. Structural testing is used to determine the estimation of the path coefficient, which indicates the power of the relationship of each hypothesized variable. R2 value is used to indicate that exogenous variables can explain the model variance. Figure 2 shows the results of the hypothesis testing structural model.

Information	Full Sample: Job-Concurrent	Sub Sample: VAMS User only	Conclusion	
	Tstatistics (p-value)	Tstatistics (p-value)	Job-Concurrent	VAMS User only
SN → PU (H1)	4.871 (0.000)***	19.652 (0.000)***	Supported	Supported
JR → PU (H2)	0.572 (0.567)	12.957 (0.000)***	Not Supported	Supported
OQ → PU (H3)	9.637 (0.000)***	3.483 (0.001)***	Supported	Supported
ICT → PU (H4)	25.952 (0.000)***	29.010 (0.000)***	Supported	Supported
ECT → PU (H6)	6.957 (0.000)***	14.815 (0.000)***	Supported	Supported
ICT → PEU (H5)	9.025 (0.000)***	32.754 (0.000)***	Supported	Supported
ECT → PEU (H7)	0.234 (0.815)	6.973 (0.000)***	Not Supported	Supported
CSE → PEU (H8)	1.314 (0.189)	2.402 (0.017)**	Not Supported	Supported
PEC → PEU (H9)	5.225 (0.000)***	22.466 (0.000)***	Supported	Supported
PEU → PU (H10)	4.263 (0.000)***	27.043 (0.000)***	Supported	Supported
PU → BI (H11)	3.902 (0.000)***	1.981 (0.048)**	Supported	Supported
PEU → BI (H12)	2.676 (0.000)***	14.407 (0.000)***	Supported	Supported

Table 3: Effect of Concurrent VAMS Operator Variables vs. VAMS User only

These tests show that there is no significant job relevance to perceived usefulness, computer self-efficacy to perceived ease of use, and external computer training on the perceived ease of use. There is a sample group that doubles as VAMS operators. Then, when the sample group tested is only a pure VAMS operator subgroup, the statistical results show the significance for all tested variables.

## Discussion

### The effect of subjective norm on perceived usefulness

In line with the TAM theory, this study found that subjective norms have a significant influence on perceived usefulness (Venkatesh and Bala, 2008, Winarno et al., 2021). The influence of environmental and social pressures in the context of government will encourage increased perceptions of the

usefulness of VAMS applications (H1 is supported). In using VAMS, the VAMS operator in Situbondo Regency influences other staff to participate in using VAMS. In this case, the VAMS operator gives trust and provides information to other staff on the benefits of using VAMS, so that the staff will also benefit from using VAMS.

VAMS application is a mandatory application. The influence of the environment around the operator or, more precisely, the Situbondo Regency Government is enormous in the use of this VAMS application. So, it can be concluded that the higher the environment around the operator gives the influence, the higher the perceived usefulness of the VAMS application (Maksum et al., 2017).

### The effect of the job relevance on the perceived usefulness

The results of testing the second hypothesis (H2) can be

seen in Table 3 that job relevance does not affect the perceived usefulness of the VAMS application. The PLS-SEM calculation results show a significance level of  $0.525 > 0.05$ . These results indicate that although the subjective norm is high, it will not increase the perceived usefulness of the VAMS application for operators (H2 is not supported), especially for concurrent users. This condition is caused by most of the respondents' work backgrounds who also served as VAMS operators tended to be pessimistic that the application of the VAMS application would be helpful for their work. Multiple roles in running applications and in the same period of time, and maybe applications that are not serialized make users feel both applications are difficult and ambiguous in their work. Operators will be more focused and feel the usefulness of the application if they do not hold concurrent positions in running the application.

VAMS operators feel that the suitability of their work with the usefulness of the VAMS application has no impact and is not tied down. The VAMS operator in Situbondo Regency feels that the suitability of the VAMS application with the tasks being carried out is not sustainable. This is because the work carried out by the majority of operators is not only focused on VAMS but also on other jobs (job-concurrent). It is proven that when we do a sample split test on respondents who are only VAMS operators, the results show that job relevance is statistically significant ( $\beta = 12.957$ , and p-value 0.000) has an effect on perceived usefulness (Febrianti et al., 2019, Venkatesh and Bala, 2008).

### **The effect of the output quality on the perceived usefulness**

The results of testing the third hypothesis (H3) can be seen in Table 3 that the output quality affects the perceived usefulness of the VAMS application. The Structural Equation Modeling (SEM) calculation results show a significance level of  $0.000 < 0.05$ . The effect shown by the beta coefficient is positive (H3 is supported), meaning that the higher output quality will increase the perceived usefulness of the VAMS application (Febrianti et al., 2019, Maksum et al., 2017).

In line with the TAM theory that users who feel that a system has contributed to the implementation of tasks, users will feel increased work efficiency (Venkatesh and Bala, 2008). This shows that the VAMS operator in Situbondo Regency feels that the VAMS application is helpful for his work because it produces high-quality reports. The VAMS operator also does not have problems with the resulting report output.

The VAMS operator no longer requires manual recording and calculating asset reports manually because the VAMS application can generate reports related to recording village assets with only one data entry. With this high report value, VAMS users produce work better than before, so operators perceive that the VAMS application is useful. So, it can be concluded that the better the quality of the results of a technology system used in work, the better the perceived usefulness of the VAMS application.

### **The effect of internal computer training on perceived usefulness**

The results of testing the sixth hypothesis (H4) can be seen in Table 3 that internal computing training has an effect on the perceived usefulness of the VAMS application. The calculation results of Structural Equation Modeling (SEM) showed a significance level of  $0.016 < 0.05$ . The effect shown by the beta coefficient is positive, meaning that the higher the internal computer training, will increase the perceived usefulness of the VAMS application (H4 is supported).

Agarwal and Prasad (1999) stated that internal computer

training has a significant effect on perceived usefulness. Operators who have experienced in-house computer training have more in-depth knowledge of the use of the VAMS application. The knowledge is then applied in carrying out their job duties to help improve their work performance for the better. This gives the VAMS operator a perception that the application is helpful for his work.

Situbondo Regency has carried out internal computer training conducted by the DPMD Kabupaten Situbondo to all authorized village officials. The training was attended by village officials who served as VAMS operators. The training organized by the Government of Situbondo Regency is very useful for VAMS operators because with this training, operators can gain new knowledge and knowledge that can be used to assist their work in using the VAMS application. So, it can be concluded that the higher the internal training carried out, the higher the perceived usefulness of the VAMS application.

### **The effect of internal computing training on perceived ease of use**

The results of testing the seventh hypothesis (H5) can be seen in Table 3 that internal computing training affects the perceived ease of use of the VAMS application. The calculation results of Structural Equation Modeling (SEM) showed a significance level of  $0.034 < 0.05$ . The effect demonstrated by the beta coefficient is positive, meaning that the higher the internal computing training, will increase the perceived ease of use of the VAMS application (H5 is supported).

Agarwal and Prasad (1999) stated that internal computing training significantly affects perceived ease of use. Operators who have experienced internal computing training have more knowledge about using the VAMS application. Then, which is where the knowledge is applied in his work to facilitate his work, this will give the VAMS operator a perception that the application provides convenience for his work.

Situbondo Regency has carried out internal computer training conducted by the DPMD Kabupaten Situbondo to all authorized village officials. The training was attended by village officials who served as VAMS operators. The training carried out by the Local government Empowerment Service provided new knowledge and knowledge to VAMS operators. The VAMS operator applies this knowledge in carrying out his work as a user of the VAMS application. So, it can be concluded that the higher the internal training carried out, the greater the perceived ease of use of the VAMS application.

### **The effect of external computer training on the perceived usefulness**

The results of testing the eighth hypothesis (H6) can be seen in Table 3 that external computer training affects the perceived usefulness of the VAMS application. The calculation results of Structural Equation Modeling (SEM) showed a significance level of  $0.038 < 0.05$ . The influence of the beta coefficient is positive, meaning that the higher the external computer training, will increase the perceived usefulness of the VAMS application (H6 is supported).

In using the VAMS application, VAMS operators who have carried out the training conducted by IAI gain more in-depth knowledge from the training. Agarwal and Prasad (1999) stated that external computer training has a significant effect on perceived usefulness. VAMS operators feel that computer training conducted by external parties from the Situbondo local government has benefits for the work of VAMS operators. The knowledge gained by the operator increases the competence of the VAMS Operator in using the VAMS application. The increased incompetence will also have an impact on the results

of the quality of the reports produced so that the success rate of using the VAMS application will also increase

The Situbondo local government has carried out external computer training by presenting the Institute of Indonesia Chartered Accountants. The government's training has had a good impact on VAMS operators, and operators can improve their understanding of using computers, especially various software that supports the use of VAMS applications. The knowledge gained is used by operators in their daily tasks of running the VAMS application. So, it can be concluded that the higher the external training carried out, the higher the perceived usefulness of the VAMS application.

### **The effect of external computer training on perceived ease of use**

The results of testing the ninth hypothesis (H7) can be seen in Table 3 that external computer training does not affect the perceived ease of use of the VAMS application. The results of the Structural Equation Modeling (SEM) calculation show a significance level of  $0.535 > 0.05$ , meaning that the higher the external computer training, will not increase the perceived ease of use of the VAMS application (H7 is not supported).

The results of this study are not in line with research conducted by Agarwal and Prasad (1999) that external computer training has a significant effect on perceived ease of use. VAMS operators who received external training felt that the training carried out was not beneficial for the perceived ease of use of the VAMS application, especially for users who hold concurrent positions. VAMS operators feel that the external training held by external government parties is not oriented to provide convenience in using the VAMS application but more oriented to obtain the perceived usefulness of the VAMS application. As a mandatory application, the training organized by IAI focuses more on emphasizing the benefits of using the VAMS application.

However, when we split the sample only on VAMS operators, the results show that external computer training has a statistically significant ( $\beta = 6.973$ , and p-value 0.000) has an effect on perceived ease of use. This condition indicates that although external computer training is oriented towards increasing the perceived usefulness of VAMS applications, if users focus on work and not concurrently, the perceived ease of use will also increase. The government should pay attention to the workload and dual positions in providing training from external parties. The dual position of work will make the operator uncomfortable in running the application even though it is given training by an external party.

### **The effect of computer self-efficacy on perceived ease of use**

The results of testing the fourth hypothesis (H8) can be seen in Table 3 that CSE does not affect the PEU of the VAMS application. The results of the Structural Equation Modeling (SEM) calculation show a significance level of  $0.083 > 0.05$ , meaning that the higher the confidence in using computer self-efficacy will not change the perceived ease of use of the VAMS application (H8 is not supported). The results of this study are not in line with the research conducted by Chang et al. (2017), Maksum et al. (2017), and Primasari and Rohman (2017). They found that computer self-efficacy has a significant effect on perceived ease.

This study found that VAMS operators had low self-confidence in their abilities. There was a feeling that the operators could not complete their tasks, and the VAMS application was difficult to run, especially for concurrent users. The emergence of feelings of low self-confidence in the ability to use this computer will cause the

operator's self-motivation to decrease. The respondent's background factor is also one of the causes. The VAMS operator is considered a group that makes it difficult to accept technological innovation, such as using the VAMS application.

One of these difficulties is that previously the operator recorded assets manually using books, then changed to computer-based, so that many adjustments were needed in the operation of the computer. For concurrent operators, of course, making the application is considered to add to the complexity of the work. However, for operators or users who focus on one job, self-efficacy in using a computer application will increase ( $\beta = 2.402$ , and p-value 0.017) the perceived ease of use VAMS application.

### **The effect of perception of external control on perceived ease of use**

Results of testing the fifth hypothesis (H9) can be seen in Table 3 that the perception of external control affects the perceived ease of use application VAMS. The Structural Equation Modeling (SEM) calculation results show a significance level of  $0.000 < 0.05$ . The effect shown by the beta coefficient is positive, meaning that the higher the perception of external control will increase the perceived ease of use of the VAMS application (H9 is supported).

In line with the TAM theory, the perception of external control is a parameter of an individual's belief that the organization and technical resources will support the use of the system (Primasari and Rohman, 2017, Putra and Samopa, 2018). The results of this study also found that the perception of external control had an effect on the perceived ease of using the VAMS application. VAMS operators feel that the VAMS application that is run is easy to use because there are various infrastructures needed to support the use of the VAMS application.

Operators feel confident to use the application because the resources provided to support the VAMS application are fully provided by the Situbondo local government, so that operator confidence increases. The Situbondo local government also provides complete VAMS supporting facilities, such as computers and computer desks. These factors give a boost to operators' belief that the VAMS application is easy to use. The completeness of facilities and resources to support the VAMS application makes VAMS operators feel that VAMS is easy to use. So, it can be concluded that the higher the infrastructure support from the Government for the use of a technology system used in their work, the greater the ease of perception of the VAMS application.

### **The effect of perceived ease of use on perceived usefulness**

Testing the tenth hypothesis (H10) can be seen in Table 3 that the perceived ease of use influences the perceived usefulness application of VAMS. The Structural Equation Modeling (SEM) calculation results show a significance level of  $0.000 < 0.05$ . The influence shown by the beta coefficient is positive, meaning that the higher the perceived ease of use will increase the perceived usefulness of the VAMS application (H10 supported).

In line with the TAM theory, the perceived ease of use of technology systems can convince users that the use of information technology provides convenience, does not burden, and increases user confidence that the system used can provide benefits in its performance (Primasari and Rohman, 2017). This study found that perceived ease of use significantly affected perceived usefulness (Winarno and Putra, 2020, Winarno et al., 2021). VAMS operators feel that the VAMS application is easy to use in carrying out their daily work. VAMS operators in Situbondo Regency feel that the VAMS application is easy to



understand. Besides, this application does not require much effort to use it. In this case, the operator no longer needs to record village assets manually, but using VAMS can automatically generate reports for recording village assets with one input. So, the higher the perceived ease of use the information technology system provides, the higher the usefulness of using the VAMS application.

### The effect of perceived usefulness on behavioral intention

The results of hypothesis testing eleventh (H11) can be seen in Table 3 that the perceived usefulness affects the behavioral intention application VAMS. The Structural Equation Modeling (SEM) calculation results show a significance level of  $0.000 < 0.05$ . The influence shown by the beta coefficient is positive, meaning that the higher the perceived usefulness will increase behavioral intention VAMS application (H11 supported).

This is in line with the TAM theory, which states that the acceptance of technology or information systems will definitely affect the intention in human behavior in using the system (Chang et al., 2017). This study found that perceived usefulness significantly affected behavioral intention (Winarno and Putra, 2020, Maksum et al., 2017). In the government context, the perceived usefulness of using an accrual-based accounting system significantly affects behavioral intention (Primasari and Rohman, 2017). VAMS operators feel that the VAMS application has uses that can be used in carrying out their work so that the behavioral intention of VAMS operators to use VAMS also increases. Operator work becomes more efficient and effective so that productivity increases when using the VAMS application. The benefits to their work performance are the driving factors for operators to have a behavioral intention in using the VAMS application. This intention arises so that operators perceive that they will continue to use this application in the future.

### The effect of perceived ease of use on behavioral intention

Testing the hypothesis twelfth (H12) can be seen in Table 3 that the perceived ease of use influences the behavioral intention of the VAMS application ( $\beta = 2.676$ , and p-value  $0.000$ ). The results of this study indicate that the higher the perceived ease of use of the VAMS application, the higher the operator's intention in using the application (H12 supported).

This is in line with the TAM theory, which states a significant relationship between perceived ease of use and behavioral intention in using technology (Primasari and Rohman, 2017, Winarno and Putra, 2020). The results of this study found that perceived ease of use had a significant effect on behavioral intention. In the government context, perceived ease of use positively impacts employee behavioral intentions to use accrual-based accounting systems (Primasari and Rohman, 2017). VAMS operators feel that they need to use VAMS applications in the future because VAMS jobs are so much easier when using applications. In using the VAMS application, the VAMS operator in Situbondo Regency operator feels that the application is easy to use and its use is easy to understand. It does not require a lot of effort to lighten the weight of the work. Operators no longer require manual recording but only need to use the VAMS application to produce various reports on recording the necessary village assets. The easiness factor that encourages VAMS operators to have the intention to continue using VAMS applications in the future will come. So, it can be concluded that the greater the convenience provided by a technology system, the greater the interest of users to use it.

### Conclusions, limitations, and suggestions

The main objective of the study was to explore the factors determining user acceptance of the village asset management systems from a job-concurrent perspective. This study's results suggest that the basic constructs of TAM have strong influences on behavioral intentions of using the VAMS application. External constructs, namely subjective norms, output quality, internal computer training, external computer training, and perceived ease of use, are strong determinants in predicting user acceptance in using VAMS applications. More importantly, in the case of a concurrent user, job relevance does not affect perceived usefulness; computer self-efficacy and external computer training does not affect the perceived ease of use of the VAMS application, although, when we split the sample, the results of this test showed that they were consistent with the theory. The government should pay attention to the workload of VAMS users in providing both external and internal training. Job relevance will not increase the ease of using VAMS when Users have concurrent jobs. Likewise, users' confidence in using the VAMS application will increase if they also do not have a workload that must be done at the same time.

In the village government, VAMS operators are influenced by social pressure (subjective norms) from the village government environment so that operators have confidence that using VAMS will increase the perceived usefulness of the application. The perceived usefulness of the application also increases because of the output (output quality) from the use of the VAMS application, which is of high value in supporting village asset management. In addition, the perception of external control, namely a complete and adequate infrastructure, will also affect the operator's perceived ease of use because users feel that the infrastructure will support the use of the VAMS application. In addition to individual factors, organizational factors in the form of internal training and external training within the village government affect the perceived usefulness and the perceived ease of use in operating the VAMS application.

Several limitations can be identified in our study. First, in this research, distributing questionnaires is experiencing obstacles due to the current state of the Covid-19 pandemic. Second, we have not been able to classify and control operators' level of education and experience in using government applications, which may have a biased impact on research results. There are several suggestions for these limitations: First, researchers can use alternative online surveys when constrained by the covid 19 pandemic. Second, further researchers can add measurements of education and experience levels that can be used to control the effectiveness of both external and internal training in increasing user acceptance of VAMS applications.

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