Using the UTAUT2 model to explain teacher acceptance of work performance assessment system

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Article Info	ABSTRACT
	An organization needs qualified and experienced human resources. Performance appraisals are required to determine the effectiveness of their work. A performance appraisal system has already been created to objectively evaluate the work of teachers, principals, and teachers given additional tasks, and to provide instructions for developing the teaching profession, principals, and teachers given additional tasks. The goal of this study was to apply the unified theory of acceptance and use of technology 2 (UTAUT2) to explain why teachers accept the performance appraisal method. With the help of SmartPLS 3.2.8 software, a partial least square structural equation model (PLS-SEM) was used to analyze the data. The results showed that behavioral intention (BI) to utilize the system is influenced by performance expectancy (PE), social influence (SI), facilitating conditions (FC), and habit (HT). The findings also revealed that system use behavior (UB) is influenced by facilitating conditions (FC), habit (HT), and behavioral intention (BI). To increase the system's adoption, the studies suggest focusing on enhancing the system's ease of use and minimizing the system's flow complexity.

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1. INTRODUCTION

There is a demand for qualified and experienced human resources who can perform their duties and tasks in line with their position in an organization. It is vital to do performance appraisal as a benchmark for the success or failure of human resources in carrying out their activities to determine how effective they are in performing their obligations and tasks in their job [1]. Based on the objective, quantifiable, responsible, and transparent principles, performance appraisal can give direction for relevant officials in the areas of professional growth, promotion and awards, and discipline in accordance with assignments and job performance of the employee [2].

In recent years, technology has evolved dramatically particularly in the field of computers and information technology [3]. At this time, the organization's use of computers and information technology has grown as a capital investment [4]. It enables the local government to create a performance appraisal system that streamlines and simplifies the performance appraisal process into a single data system [5]. The system is given to improve service and elements of employee data relations in an integrated and centralized manner, in accordance with the local government agency's laws and regulations for optimizing e-Government [6]. If the firm expects to improve its efficiency and service, employees must be welcomed and encouraged to use the technology [7]. Acceptance and usage of information technology (IT) and information systems (IS) at work

are just a few examples of the fully developed information systems research stream [8], particularly judgments concerning IT and IS adoption and use at work.

Unified theory of acceptance and use of technology 2 (UTAUT2) is a development version of the unified theory of acceptance and use of technology (UTAUT) for investigating acceptance and use of technology. UTAUT2 combines three more constructs within UTAUT specifically price value, hedonic motivation, and habit. Gender, age, and experience are thought to influence behavioral intentions and technology use [8]. Personal confidence in using a system/technology due of the benefits that will assist in carrying out specific activities/works is termed as performance expectancy [7], [8]. The perceived utility of mobile services has a big impact on behavioral intentions to utilize them [9]. The user's level of system/technological usage ease is defined as effort expectancy [7], [8]. According to a study [10], perceived ease of use has a considerable positive impact on behavioral intentions to use mobile library apps.

Social influence is a personal feeling that is impacted by others (close relatives and coworkers) to feel confident in using specific systems/technologies [7], [8]. Social influence holds a positive influence on behavioral intention to use mobile banking applications [11]. Facilitating conditions are defined as a person's belief in the organizational resources, support, and technical infrastructure availability to aid system use [7], [8]. The behavioral intention to use internet banking is strongly linked to facilitating factors [12].

In information system research, hedonic motivation has been found to have a direct impact on technology acceptance and use [8]. In the United States, the hedonic aspect [13] is the most important factor influencing consumer intentions to utilize mobile purchasing services. The exchange between the application's perceived advantages and the user's cognitive-relatedetary charges to use it is referred to as price value [8]. Customers' preferences and pricing perceptions have been found to have a favorable link, according to a study [14]. First, habit has been defined as previous behavior [8], and second, the habit has been defined as personal confidence when the activity becomes automatic [8]. Habit can alternatively be defined as a reflection of the outcome of earlier experience [8]. The habit was discovered to be the most important factor of behavioral intention to use B2C websites in the future [15].

Behavioral intention refers to a person's personal willingness to engage in particular conduct [16], [17]. Some researchers have identified intention/behavioral intention as a crucial determinant of technology usage behavior [7], [8]. Consumers believed that having a behavioral goal will boost their use of 3G mobile telecommunication services [18]. Prior technology use is a major determinant of future technology use [5]. The current focus of technology use research is on system elements (such as the breadth and extent/depth of use). Both breadths of use (for example, the number of applications/distinct features) and depths of use (for example, usage frequency) must be combined for measurements [8].

In one of Indonesia's local governments, a performance appraisal information system has already been established. According to the study's findings [1], the system's installation was good, with above-average outcomes, but in 2015, only 70% of the system was completed on time, with the remaining not. As a result, more research is needed to discover the elements that influence the acceptability and use of the performance appraisal information system. Then make suggestions to improve system adoption and utilization.

2. RESEARCH METHOD
2.1. Research model
The unified theory of acceptance and use of technology (UTAUT) 2 delivers a better or higher variant value (R^2) in behavioral intention 74% and technology use/use behavior 52%, according to the variance values (adjusted R^2). So, in this study, the UTAUT2 model [8] was used. Figure 1 depicts the research model.

2.2. Population and sample
All public junior high school teachers in the Bantul Regency government who use the Bantul Regency civil servant performance appraisal system 2018 become part of the research population. The authors use (1) to calculate the minimum number of samples required to undertake research [19].

$$n = \frac{N}{1+N(e)^2}$$ (1)

Notes:
n = sample size or number of samples;
N = population size or population;
e = level of precision or tolerance level of error

Based on data [20], it is known that the number of 2018 State Junior High School teachers in Bantul Regency is 1,518 teachers, so using an error tolerance of 5%, the sample size is 317 people. Bantul Regency, Special Region of Yogyakarta, Indonesia consists of 17 sub-districts and has 47 State Junior High Schools [21]. If using a simple random sampling approach, to meet the needs of a sample of 317 respondents, it means that researchers need to go to 47 public junior high schools in Bantul Regency [22]. This will cost a lot of time and money [22], [23]. Therefore, this study will use a cluster sampling in which three sub-districts will be randomly selected from a total of 17 sub-districts. Then the researcher will study all public junior high school teachers who use the Bantul Regency Civil Service Performance Assessment System in 2018 in three selected districts.
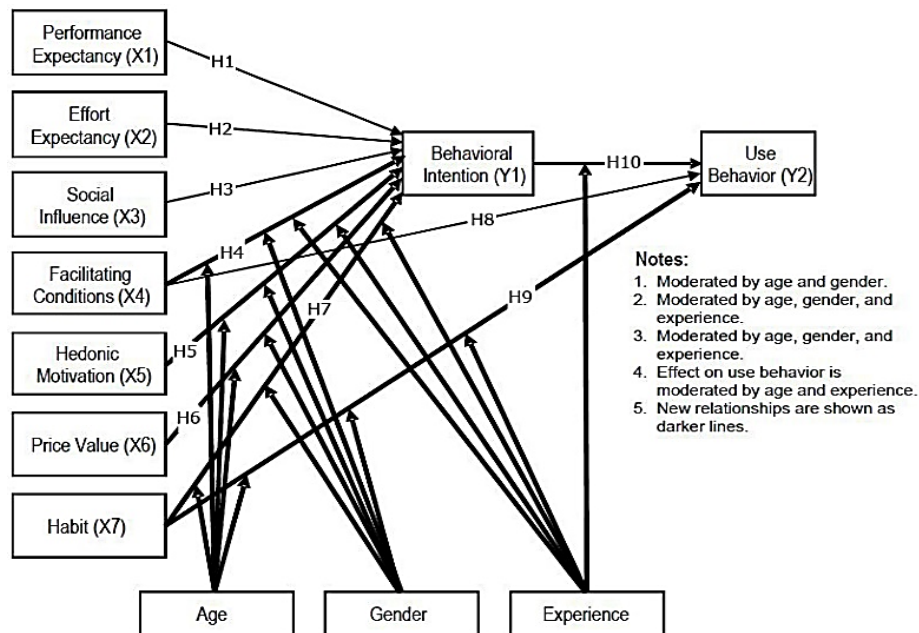

Figure 1. Research model [8]

2.3. Research instruments

Parts I and II of the questionnaire are split into two sections. Part I of the questionnaire asks about the respondents' personal information (age and gender) as well as their experience with the Bantul Regency civil servant job performance rating system. The second part of the questionnaire contains remarks about respondents' acceptance rate and frequency of use of the Bantul Regency civil servant job performance review system in 2018. This statement was developed from earlier studies [8], [24], [25] and has been thoroughly reviewed for this study.

2.4. Data analysis method

The data was handled and analyzed using SmartPLS 3.2.8 software and the partial least square structural equation model (PLS-SEM) [26]. The PLS-SEM may function efficiently for complicated models (many constructs and indicators) independent of distribution assumptions. It was utilized in this study to predict key target constructs or identify key "driving" constructs. The PLS path model has two components: i) A structural model (also known as the inner model in PLS-SEM) that depicts the relationship between latent variables/constructs, and ii) A measurement model (also known as the outer model in PLS-SEM) that depicts the relationship between latent variables/constructs and their indicators [27].

The initial focus of the PLS-SEM assessment model was on measurement models. The PLS-SEM estimation assessment allows researchers to assess the construct's reliability and validity. This study solely looks at the evaluation of reflective measurement models since the link between the construct and its indicators is reflective (reflective measurement models). Convergent validity, discriminant validity, and internal consistency reliability will be evaluated in this reflective measuring model. The Coefficient of Determination (R^2 value or R-square) is used to evaluate structural models.

3. RESULTS AND DISCUSSION

3.1. General description of respondents

The description of respondents is shown in Table 1. The respondents are divided into age, gender, and experience groups (in years). In terms of age, the respondents were relatively senior, with 65% being older than 50 years old. Most respondents (nearly 86%) have used the system for more than two years.

Table 1. Demographics of the survey respondents

Demographic profile	Categories	Frequency	Percent (%)
Age (years)	< 30	4	1.26
	31 – 40	11	3.46
	41 – 50	95	29.87
	> 50	208	65.41
Gender	Male	125	39.31
	Female	193	60.69
Experience (years)	< 1	7	2.20
	1 – 2	38	11.95
	> 2	273	85.85

3.2. Model analysis

With the help of SmartPLS 3.2.8 software [26], a partial least square structural equation model (PLS-SEM) was used to model and analyze the data. The PLS path model is made up of two parts: i) The structural model (also known as the inner model in PLS-SEM) that shows the correlation between latent variables/constructs, and ii) The measurement model (also known as the outer model in PLS-SEM) that shows the correlation between latent variables/constructs and their indicators [27].

3.3. Measurement models or outer models' evaluation

3.3.1. Convergent validity (reliability indicator, average variance extracted)

Outer loadings and average variance extracted (AVE) values are used to assess convergent validity, as shown in Table 2. This table shows that all indicators have outer loadings ≥0.708 and an AVE>0.5. As a result, all indicators satisfy the general norms of convergent validity, and nothing needs to be removed.

Table 2. Outer loadings and AVE

Construct	Indicator	Outer loadings	AVE
BI	BI1	0.930	0.870
	BI2	0.951	
	BI3	0.917	
EE	EE1	0.873	0.666
	EE2	0.734	
	EE3	0.791	
	EE4	0.859	
FC	FC1	0.932	0.786
	FC2	0.886	
	FC3	0.880	
	FC4	0.847	
HM	HM1	0.897	0.631
	HM2	0.713	
	HM3	0.761	
HT	HT1	0.867	0.697
	HT2	0.791	
	HT3	0.845	
PE	PE1	0.965	0.916
	PE2	0.966	
	PE3	0.940	
PV	PV1	0.883	0.736
	PV2	0.859	
	PV3	0.831	
SI	SI1	0.922	0.862
	SI2	0.938	
	SI3	0.927	
UB	UB1	0.808	0.624
	UB2	0.806	
	UB3	0.831	
	UB4	0.723	
	UB5	0.723	
	UB6	0.838	

3.3.2. Discriminant validity

The degree to which a construct deviates from other constructs according to empirical standards is known as discriminant validity. Discriminant Validity ensures the uniqueness of the construct and catches phenomena not represented by other constructs in the model. Measurements of discriminant validity were evaluated in accordance with the heterotrait-monotrait ratio (HTMT) result. The HTMT ratio output is used to measure discriminant validity, as shown in Table 3. The table shows that where the deattenuated correlation between constructs is less than 1, discriminant validity conditions have been met.

Table 3. Output heterotrait-monotrait ratio

Construct	BI	EE	FC	HM	HT	PE	PV	SI	UB
BI									
EE	0.152								
FC	0.792	0.164							
HM	0.207	0.080	0.276						
HT	0.703	0.190	0.586	0.278					
PE	0.827	0.258	0.774	0.236	0.680				
PV	0.608	0.334	0.551	0.260	0.768	0.722			
SI	0.727	0.116	0.618	0.222	0.521	0.615	0.477		
UB	0.462	0.262	0.635	0.342	0.695	0.478	0.580	0.429	

3.3.3. Internal consistency reliability (Cronbach's alpha, composite reliability)

PLS-SEM used to work well with Cronbach's alpha. If Cronbach's alpha>0.70 and composite reliability > 0.70, the construct has met internal consistency reliability requirements [27]. Cronbach's alpha>0.70 and composite reliability >0.70, according to Table 4. It means that the construct complied with the internal consistency and dependability criteria.

Table 4. Cronbach's alpha and composite reliability

Construct	Cronbach's alpha	Composite reliability
BI	0.925	0.952
EE	0.839	0.888
FC	0.909	0.936
HM	0.739	0.836
HT	0.786	0.873
PE	0.954	0.970
PV	0.821	0.893
SI	0.920	0.950
UB	0.879	0.908

3.4. Structural model or inner model evaluation

The squared correlation on either side of endogen construct and expected values is computed as the coefficient of determination (R^2 value or R-square). R^2 values vary from 0 to 1, with the higher numbers indicating stronger prediction accuracy [27]. Table 5 provides the R^2 value (or R-square) as a result of the coefficient of determination.

Table 5. Output R square

Construct	R Square	R Square adjusted
BI	0.734	0.728
UB	0.487	0.482

The SmartPLS bootstrapping result can be used to test hypotheses using the p-value, T Statistics, or t values. It can be inferred that the link examined is significant at the 5% level using a significance threshold of 0.05 (=5%), P-value<0.05. T Statistics are also compared to t-table or crucial values for one-tailed testing with a significance level of 0.05 (=5%) of 1.65 [27]. As a result, if T Statistics or t values>1.65, the hypothesis value is acceptable. Figure 2 and Table 6 show the result of the hypothesis testing of the research.

Hypothesis 1 (H1) testing revealed that behavioral intention to use the performance assessment information system is significantly influenced by performance expectancy. The test results in this study demonstrate how respondents' behavioral intention to use the performance appraisal system is affected by

whether they believe in the benefits they have received or the projected performance. The system has exceeded user expectations in terms of offering benefits in the job of creating and reporting performance assessment (*sasaran kerja pegawai/*SKP), as well as speeding up the process of creating and reporting SKP and increasing productivity. This finding is consistent with previous study [28], which found that perceived utility is essential and has a higher impact on the intention to use a mobile credit card.

Social influence has a beneficial impact on behavioral intention to utilize the performance assessment information system, according to the results of hypothesis 3 (H3) testing. The views of respondents who believe that prominent and influential persons in their environment influence their behavioral intention to use the system are described in this study's test results. Unless they use a web-based system, respondents no longer have any other alternatives for creating and reporting SKP. This conclusion is consistent with [29], which found that social influence had a considerable impact on behavioral intentions to utilize mobile entertainment. The facility circumstances have an impact on mobile banking customers' behavioral intentions [25].
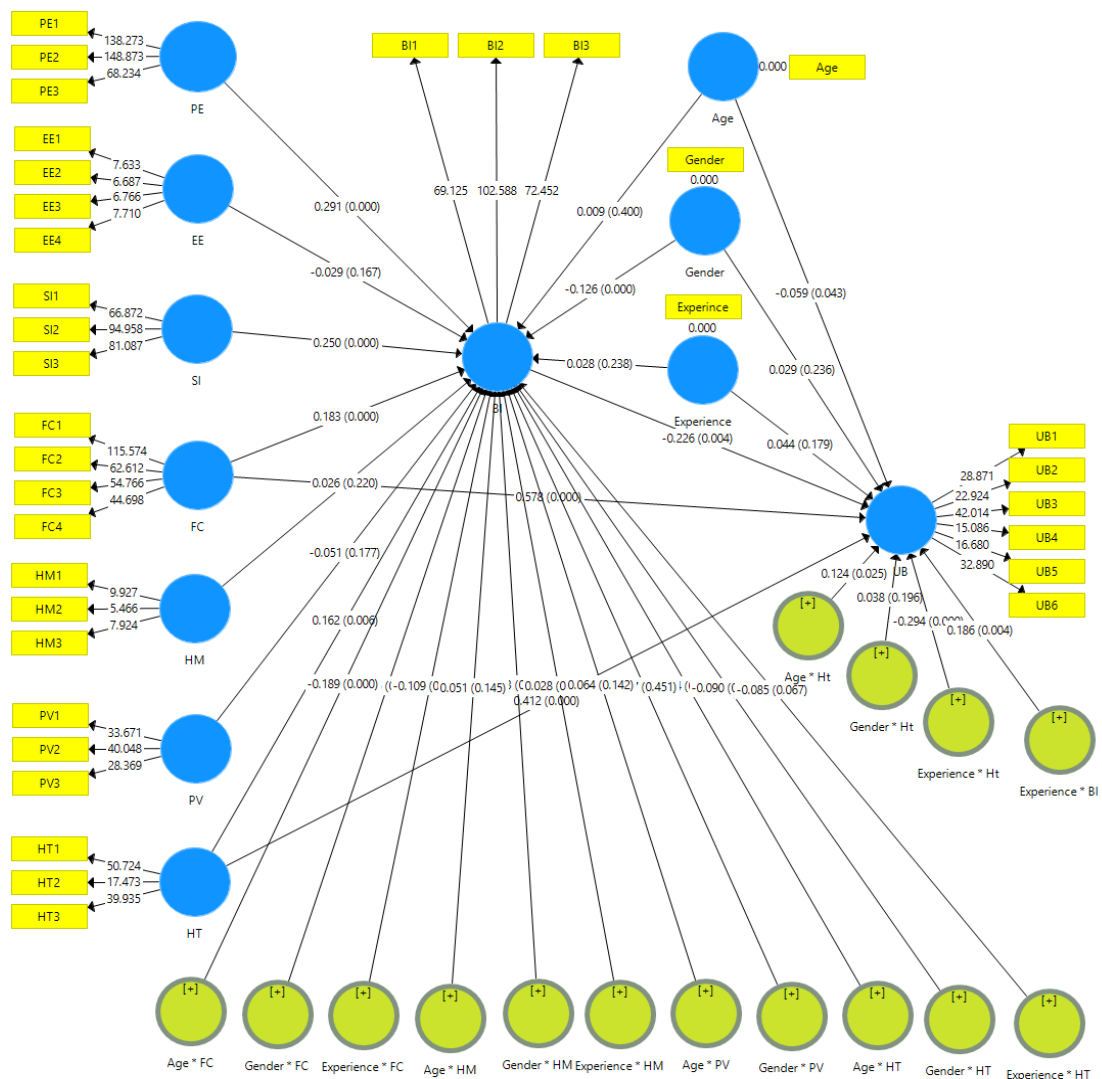

Figure 2. Output bootstrapping hypothesis tests

Hypothesis 4 (H4) testing revealed that facilitating conditions influence behavioral intention to use the performance appraisal information system. The attitudes of respondents who believe that the availability of support resources such as computing devices and technical infrastructure such as support for internet network connection facilities, required knowledge, conformity with technology, and support for assistance for obstacles/problems affect behavioral intention to use the system are described in this study's test results.

This outcome is consistent with the findings of a study [12] that found a link between enabling conditions and behavioral intent to use internet banking. Consumers believe that providing more favorable conditions will boost their willingness to use 3G mobile telecommunication services [30].

The findings of hypothesis 7 (H7) testing revealed that habit influences behavioral intention to use the performance appraisal information system in a good way. The test results in this study describe the conduct of respondents who believe that repetitive and continuous automated activity impacts behavioral intention to utilize the system. This is because it is the result of a long-standing habit of using the system, which began in 2015. These users are accustomed to using the system year after year. This outcome is consistent with research that shows habit has a beneficial impact on the intention to utilize classroom technology [31].

Hypothesis 8 (H8) testing revealed that facilitating conditions have the greatest influence on performance appraisal information system use behavior. The test results in this study describe respondents' attitudes toward the availability of support resources such as computing devices and technical infrastructure such as support for internet network connection facilities, required knowledge, compatibility with technology, and support for assistance for obstacles/problems affecting system use behavior. Conditions that make it easier to use mobile banking applications have a beneficial impact [11]. The influence of supporting conditions on consumers' actual use, on the other hand, is not considerably different between the United States and Korea. Then, according to other studies, facilitating conditions have a major impact on the actual use [32].

The findings of hypothesis 9 (H9) testing revealed that habit has a beneficial impact on performance appraisal information system use behavior. The results of this study's tests describe the automatic behavior that developed as a result of the system's use. The users are then reacquainted with how to operate the system. This finding is consistent with previous research [32], which found that habit has a beneficial impact on mobile banking app usage [11].

Hypothesis 10 (H10) testing revealed that behavioral intention has a favorable influence on performance assessment information system use behavior. The behavior of respondents who feel that their involvement in a behavior affects the system's usage behavior is described in this study's test results. Users are more likely to use the system if they intend to use it, as evidenced by this finding. This finding is consistent with the findings of Wu, Tao, and Yang [30], which found a link between behavioral intention and 3G mobile telecommunications use behavior. The intention to adopt a technology (MP3 player and internet banking, for example) has a considerable impact on users' actual usage of technology, according to other research findings [33].

Table 6. Hypothesis test results

Path	Moderation	Path coefficients	T Statistics	P Values		Results
PE -> BI	-	0.291	5.044	0.000	H1	Accepted
EE -> BI	-	-0.029	0.948	0.172	H2	Rejected
SI -> BI	-	0.250	5.032	0.000	H3	Accepted
FC -> BI	-	0.183	4.165	0.000	H4	Accepted
FC -> BI	Age	-0.189	4.178	0.000	H4a	Accepted
FC -> BI	Gender	0.015	0.364	0.358	H4b	Rejected
FC -> BI	Experience	-0.109	2.341	0.010	H4c	Accepted
HM -> BI	-	0.026	0.832	0.203	H5	Rejected
HM -> BI	Age	0.051	1.113	0.133	H5a	Rejected
HM -> BI	Gender	0.033	0.941	0.174	H5b	Rejected
HM -> BI	Experience	0.028	0.665	0.253	H5c	Rejected
PV -> BI	-	-0.051	0.970	0.166	H6	Rejected
PV -> BI	Age	0.064	1.083	0.140	H6a	Rejected
PV -> BI	Gender	0.007	0.137	0.445	H6b	Rejected
HT -> BI	-	0.162	2.480	0.007	H7	Accepted
HT -> BI	Age	0.114	2.063	0.020	H7a	Accepted
HT -> BI	Gender	-0.090	1.582	0.057	H7b	Rejected
HT -> BI	Experience	-0.085	1.703	0.045	H7c	Accepted
FC -> UB	-	0.578	7.822	0.000	H8	Accepted
HT -> UB	-	0.412	6.437	0.000	H9	Accepted
HT -> UB	Age	0.124	2.003	0.023	H9a	Accepted
HT -> UB	Gender	0.038	0.927	0.177	H9b	Rejected
HT -> UB	Experience	-0.294	3.656	0.000	H9c	Accepted
BI -> UB	-	-0.226	2.645	0.004	H10	Accepted
BI -> UB	Experience	0.186	2.862	0.002	H10a	Accepted

According to the findings, the local government should concentrate on increasing the system's ease of use and minimizing the system's flow complexity in order to increase acceptance. The developer can enter task assignment options for sophisticated system development, eliminating the need for users to type. This can assist the user save time and avoid multiple perceptions caused by language delivery differences. The assessment standards were then incorporated into the system, ensuring that position, class, and function are all based on data already available. The technology will be able to automatically determine an employee's proper credit score for specific job assignments. It has the potential to reduce the number of mistakes made when calculating credit scores.

4.   CONCLUSION

The unified theory of acceptance and use of technology 2 (UTAUT2) was successfully implemented in the local government performance appraisal information system in 2018 to find the determinant of user acceptance and use of the system. Performance expectancy has the greatest impact on behavioral intention to utilize the system, according to the research. While the system's use behavior is most affected by facilitating situations. The findings also show that the associations between the four independent variables and the two dependent variables were modulated by age and experience (behavioral intention and use behavior). Overall, the findings of this study add to the body of information about technology acceptability, particularly for local governments looking to improve system performance to improve the system's adoption.

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