

Impact of Trust on Willingness to Use E-Government Services

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ABSTRACT

The primary objective of this study was to gain insight into individual perceptions of using online public services offered by local governments. The research aimed to determine how performance expectancy, effort expectancy, trust in government, facilitating conditions, and social influence impact individuals' intentions and behaviors in using online government services. Data were collected using an online questionnaire, and analysis was conducted using structural equation modeling with SmartPLS. The key findings include the positive influences of trust in government and facilitating conditions on users' intentions and behaviors related to e-government services. However, the study did not identify a significant relationship between performance expectancy, effort expectancy, and social influence concerning user intentions and behaviors in using e-government services.

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1. INTRODUCTION

One of the responsibilities of both the central and regional governments involves the provision of public services to the populace [1]. This responsibility is stipulated in accordance with the mandate outlined in the Republic of Indonesia's Law Number 25 of 2009 on Public Services [2]. Law 25/2009 on Public Services was officially promulgated through the State Gazette of the Republic of Indonesia Number 112 of 2009, along with the accompanying Elucidation of Law 25 of 2009 on Public Services. At present, the delivery of public services is generally satisfactory, but it falls short of meeting all the expectations of the country. This is evident when analyzing the results of the Community Satisfaction Index (CSI) survey, which provides data and information regarding community satisfaction levels, gathered through quantitative and qualitative assessments of public opinion regarding their experiences with service providers. The survey measures how well these services align with communities' expectations and needs [1] [3] [4]. The guidelines for conducting this survey draw upon the provisions outlined in the Ministry of State Apparatus Utilization and Bureaucratic Reform's Decree Number 14 of 2017, which offers guidance on the preparation of Government Service Units (IKM Service Units).

To enhance efforts aimed at enhancing the quality of public services, it becomes imperative to periodically assess the delivery of these services. The condition aligns with the directive set forth in Article 7, paragraph (3) point c of Law Number 25 of 2009 on Public Services, which mandates ongoing evaluation of public service delivery performance. The evolution of information technology has opened up possibilities for enhancing the efficiency of public services [5]. The concept of e-government in Indonesia was initially introduced in 2001, coinciding with the issuance of Presidential Instruction Number 6 of 2001 on April 24, 2001, which emphasized the use of telematics technology by government officials to promote good governance and expedite democracy system. Nonetheless, this initiative has encountered a lack of enthusiasm from various government stakeholders along the way [6].

The era of e-government in Indonesia was inaugurated by President Megawati Soekarno Putri in 2003 when the government introduced a policy for e-government implementation through Presidential Instruction Number 3 of 2003. This directive outlined e-government development strategies and provided guidelines for various aspects of e-government, including the development of a government portal infrastructure, management of the government electronic document system, and the establishment of local government websites, among others.

Subsequently, this policy was extended with the issuance of Presidential Regulation Number 95 of 2018 on the Electronic Government System (SPBE) by President Jokowi. SPBE-related policy was envisioned as a crucial step toward enhancing the government's performance in delivering public services, which had not been optimal thus far. However, in practice, the implementation of e-government has encountered several challenges and obstacles.

In the context of e-government adoption, multiple studies have become points of reference for countries in gauging the success of their initiatives. The United Nations conducted a notable study in 2020 [7], which currently serves as a guiding resource. According to this study, Indonesia ranks 88 of 193 countries in terms of implementation. Comparatively, among neighboring countries, Malaysia ranks 47th, Thailand ranks fifty-seventh, and Vietnam ranks eighty-sixth. This underscores the need for improvements in e-government implementation in Indonesia.

To enhance e-government adoption, it is crucial to collaboratively implement various measures and policies involving the government, academia, communities, and other stakeholders. One critical aspect is societal conditions regarding e-government adoption [7]–[9]. To grasp these conditions and people's perceptions of e-government usage, extensive and in-depth studies relating to e-government adoption within communities are necessary. From a theoretical perspective, adopting innovation (which includes e-government as an innovation in services) represents a mental process or a shift in behavior, encompassing knowledge (cognitive), attitude (affective), and skills (psychomotor) from the moment an individual becomes aware of the innovation to when they decide to implement it [10], [11]. Adoption is intricately linked to decision-making [12], which plays a pivotal role in the process of adopting an innovation. The decision-making process in innovation adoption involves selecting one alternative from various innovation options known to an individual [11]–[13].

Previous research on the factors influencing e-government adoption has identified two crucial categories for aspects relevant to the use of e-government services: organizational factors and community perspectives [14]. Regarding perspectives on e-government service use, a fundamental obstacle to e-government service adoption in Indonesia is the low level of public trust in the government [6]. Trust represents a key factor that can deter users from intending to use e-government services, particularly when there is a lack of trust in the government's actions [2]. Expert opinions on trust suggest that it has two areas: trust related to technical matters (such as technology, applications, infrastructure, and security) and trust related to non-technical matters (like trust in the government as the orchestrator of e-government, for example).

This situation is particularly pertinent to the study of e-government in Indonesia. Research on trust and e-government adoption in Indonesia has primarily focused on technical trust, encompassing trust in the Internet and trust in applications. There are limited studies that delve into non-technical aspects. This observation prompted us to undertake a more comprehensive study concerning the adoption of e-government services in Indonesia, with a specific emphasis on the trust (non-technical) factor as a critical point of discussion [1] [2] [15] [16]

Researchers focusing on the topic of e-government have conducted studies related to adoption by applying established theories, such as the technology acceptance model, the theory of planned behavior, the theory of reasoned action, and the unified theory of acceptance and use of technology [17]. These theories have been employed to elucidate the conditions governing the adoption of e-government services by users. When selecting an appropriate theory for research, Taylor and Tood (1995) advocate the importance of choosing a theory that aligns with the relevant context and takes into account existing phenomena [18].

There are several theories used to analyze technology acceptance, including TRA, TAM, TPB, UTAUT, and UTAUT2. Here is a brief comparison of these five theories: TRA (Theory of Reasoned Action): This theory assumes that a person's behavior is influenced by their intention to perform that behavior. Intention is influenced by the individual's attitude towards the behavior and the subjective norm perceived by the individual. TRA does not consider external factors that influence behavior. TAM (Technology Acceptance Model): This theory assumes that technology usage is influenced by the user's perception of the usefulness and ease of use of the technology. TAM does not consider external factors that influence technology usage. TPB (Theory of Planned Behavior): This theory is a development of TRA. In addition to attitude and subjective norm, TPB also considers perceived behavioral control. Perceived behavioral control includes factors that influence an individual's ability to perform the behavior. UTAUT (Unified Theory of Acceptance and Use of Technology): This theory assumes that technology usage is influenced by four factors: performance

expectancy, effort expectancy, social influence, and facilitating conditions. UTAUT considers external factors that influence technology usage. UTAUT2 (Unified Theory of Acceptance and Use of Technology 2): This theory is a development of UTAUT. In addition to the factors in UTAUT, UTAUT2 also considers factors such as gender, age, experience, and cultural conditions. In this study, we have chosen The unified theory of acceptance and use of technology (UTAUT), which is an integrated model developed by Venkatesh et al. in 2003. This decision was made with the understanding that UTAUT is well-suited to the context of the research. Additionally, we have considered the role of trust as a significant factor in explaining how it influences people's decisions to use e-government services.

We have organized this article as follows. The introductory section has provided background information and the motivation for this study. The second section delves into the research methodology, outlining how the study was conducted and including discussion related to the theory and model applied. The subsequent section presents the research findings and their associated discussion. Finally, the article concludes with a presentation of conclusions and recommendations.

2. RESEARCH METHOD

This study is grounded in UTAUT as its theoretical framework. UTAUT is an integrated model that draws upon cognitive and social theories, combining elements from eight prominent research models on information technology acceptance [19]. The UTAUT model has demonstrated significant success, surpassing eight other technology acceptance theories in explaining an average of 70% of user variance [20]–[22]. Subsequently, UTAUT was enhanced with the addition of several variables[23]. It centers around four key variables: performance expectancy, effort expectancy, social influence, and facilitating conditions, all of which influence behavioral intentions to use technology [24]

In addition to the UTAUT framework, this study explores the elements of trust. Trust is a multifaceted concept encompassing various perspectives and has been embraced in various scientific domains. In the context of e-government, the discussion on trust predominantly revolves around concepts related to trust in the Internet and trust in the government [25].

Trust in government represents the subjective degree to which individuals believe in the commitment and capability of the government to provide public services. Previous research has consistently shown that trust in government has a significantly positive correlation with user intentions to embrace e-government services. Researchers share a common understanding regarding the interplay between trust and technology adoption, firmly believing that trust plays a pivotal role in motivating users to engage with a technology[25]. In this study, we propose the following hypotheses:

H1: Trust in government exhibits a positive relationship with user behavior.

H2: Trust in government demonstrates a positive relationship with the intention to adopt.

Performance expectancy denotes an individual's belief regarding the extent to which using a system will confer advantages in a particular task or activity. Prior research has established a substantial association between performance expectancy and technology adoption [26]. Nevertheless, the correlation between performance expenditure and technology adoption is not consistently substantial. The relationship between performance expectancy and e-government adoption, no significant connection was observed [27]. In this study, we propose the following hypothesis:

H3: Performance expectancy displays a positive relationship with the intention to adopt.

Effort expectancy signifies the ease associated with using a system or technology. Researchers have also explored the relationship between effort expectancy and technology adoption in information systems. Several researchers have uncovered a significant link between effort expectancy and technology adoption [28]. However, in contrast, results from a study conducted by Lallmahomed et al. in 2017 failed to reveal a positive relationship between effort expectancy and technology adoption [29]. Taking into account these prior findings, we put forward the following hypothesis:

H4: Effort expectancy exhibits a positive relationship with the intention to adopt.

Social influence encompasses an individual's perception that others believe it is advantageous to use a particular system or technology. Researchers have delved into social influence, with some discovering a significant relationship to technology adoption and others reaching different conclusions. For instance, Weerakkody et al. in 2013, in their research on e-government adoption in Saudi Arabia, did not identify a significant connection between social influence and technology adoption. In this study, we propose the following hypothesis:

H5: Social influence demonstrates a positive relationship with the intention to adopt.

'Facilitating condition' reflects an individual's belief in the presence of the technical and organizational infrastructure required to support the use of a system or a technology [28], [29]. In the context of e-government, facilitating conditions can be perceived as the trust level held by users that adequate resources and facilities

are available for e-government services. In UTAUT, facilitating conditions are considered a fundamental element significantly associated with technology adoption, as supported by various studies [30]. We therefore propose the following hypotheses:

H6: Facilitating condition displays a positive relationship with the intention to adopt.

H7: Facilitating condition exhibits a positive relationship with user behavior.

Table 1. Operational Definitions of Variables

| Variable Name | Definition | Source |
|-------------------------|---|--------|
| Performance Expectancy | Performance expectancy is the extent to which an individual believes that using the system will help him to attain gains in job performance | [26] |
| Effort Expectancy | Effort expectancy is the level of ease users associate with using the system/technology | [28] |
| Social Influence | Social influence is how a person perceives that others believe that it is better to use the system/technology | [30] |
| Facilitating Conditions | Facilitating conditions are the extent to which an individual believes that the technical and organizational infrastructure is in place to support the use of the system/technology | [30] |
| Trust in Government | Trust in government is defined as the subjective degree to which people believe in the dedication and ability of the government to provide public services | |
| Intention to Adopt | Intention to adopt is the readiness of the user to perform a specific action | [9] |
| User Behavior | Behavior in adopting e-government services | [28] |

Table 2. Indicators of Each Variable

| Variable Name | Indicator | Source |
|------------------------------------|--|--------|
| Trust in Government (TIG) | TIG1: I can trust that the government of Jambi City is serious about providing online public services TIG2: I can trust that the government of Jambi City safeguards my best interests by providing online public services TIG3: I trust the matters that I convey through the government of Jambi City's online public service will be followed up and resolved properly | [25] |
| Intention to Use E-Government (II) | II1: I intend to use the government of Jambi City's online public service in the future II3: I will always use the government of Jambi City's online public service | [9] |
| Social Influence (SI) | SI1: People who are important to me recommended that I use the government of Jambi City's online public service SI2: The people closest to me have advised me to use the government of Jambi City's online public service SI3: In general, the people closest to me should use the Jambi City government's online public service | [30] |
| User Behavior (US) | US1: I will continue to use the government of Jambi City's online public service US2: I am able to use the government of Jambi City's online public service US3: I would advise people to take advantage of the government of Jambi City's online public service US4: I don't need to go directly to the government of Jambi City office since I use the government of Jambi City's online public service | [28] |
| Facilitating Condition (FC) | FC1: I have the resources necessary to use the government of Jambi City's online public service FC2: I have the knowledge necessary to use the government of Jambi City's online public service FC3: I can get help from others when I have difficulty using the government of Jambi City's online public service | [30] |
| Performance Expectancy (PE) | PE1: Using the government of Jambi City's online public service has helped me accomplish things PE2: I find the government of Jambi City's online public service useful in daily life PE3: The government of Jambi City's online public service is fun to use PE4: The government of Jambi City's online public service improves the quality of my business settlement | [26] |
| Effort Expectancy (EE) | EE1: My interaction with the government of Jambi City's online public service is clear and understandable EE2: I find the government of Jambi City's online public service easy to use EE3: It would be easy for me to become skillful at using the government of Jambi City's online public service EE4: In general, the government of Jambi City's online public service is easy to operate | [28] |

Intention to adopt denotes the user's willingness to undertake a specific action [19]. Generally, a strong intention contributes to the development of certain habits. Studies have consistently revealed that intention has a significant relationship with one's usage behavior [23], [26]–[28]. Thus, we propose the following hypothesis:

H8: Intention to adopt demonstrates a positive relationship with user behavior.

Table 1. provides the definition of each variable in the study. Seven variables were evaluated.

It is crucial to define how each variable was measured. In this study, each variable was assessed using specific indicators, which were select based on relevant findings from previous research. Table 2 presents details about the indicators for each variable, as well as the sources from which these indicators were drawn.

Figure 1 depicts the relationships among the variables with reference to the research hypotheses.

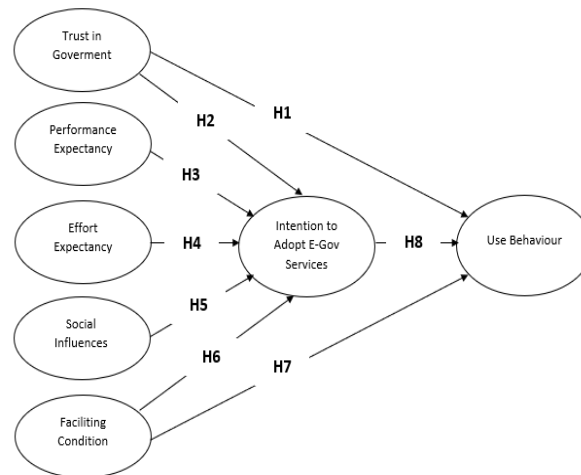


Figure 1. Research Model

This study employed a quantitative approach, developing a research model comprising eight hypotheses. The foundation of this model is UTAUT, with a particular focus on assessing the trust factor as a pivotal element. To gather data, a survey instrument was created and distributed online. Subsequently, the collected data were subjected to processing and analysis using structural equation modeling (SEM). SEM was chosen for its capacity to evaluate causal relationships between variables utilizing multiple indicators. The data analysis consisted of two primary steps, with the initial step aimed at assessing the measurement model to ensure that the variables and items satisfy robust criteria, with an emphasis on evaluating the validity and reliability of each variable [31].

3. RESULTS AND DISCUSSION

Data collection for this research was carried out by distributed online questionnaires via social media. The majority of respondents fell within the 18–25 year age range, with a predominant occupation of high school and college students. The respondents were 53% male and 47% female. Additional details regarding the respondent profile are provided in Table 3.

Table 3. Respondent Profile

| Demographic Characteristics | Number of Respondents | Proportion |
|------------------------------|-----------------------|------------|
| Gender | | |
| Male | 353 | 53% |
| Female | 313 | 47% |
| Age | | |
| 30 years or younger | 579 | 87% |
| 31–35 years | 20 | 3% |
| Above 35 years | 67 | 10% |
| Level of education | | |
| High school diploma | 246 | 37% |
| Undergraduate degree | 406 | 61% |
| Postgraduate (higher degree) | 13 | 2% |
| Work | | |
| Student | 579 | 83% |
| TNI / Police | 33 | 5% |
| Civil servant | 47 | 7% |
| Private | 33 | 5% |
| Businessman/woman | 33 | 5% |

The data collected from the respondents were subsequently analyzed using the SEM method, employing the Smart PLS v2 application. SEM analysis comprises two steps: the first involves evaluating the measurement model, and the second step entails assessing the structural model [32]. These steps were systematically carried out in the data analysis.

3.1. Evaluation Measurement Model

The purpose of the evaluation was to confirm the reliability and validity of each variable and its associated measurement indicators. To ensure that these two standards were met, two tests were conducted: a reliability test and a validity test. The reliability test assessed the internal consistency of the indicators; this was done by examining the Cronbach's alpha value. The results demonstrate that Cronbach's alpha for each variable exceeded 0.7, indicating a relatively high level of reliability [33]. Table 4 contains details pertaining to the reliability and validity testing of the instrument.

Table 4. Reliability and Validity Tests

| Variable | AVE | Composite Reliability | R Squared | Cronbach's Alpha | Communality | Redundancy |
|------------------------|--------|-----------------------|-----------|------------------|-------------|------------|
| Effort Expectancy | 0.7679 | 0.9297 | 0 | 0.8995 | 0.7679 | 0 |
| Facilitating Condition | 0.6438 | 0.8439 | 0 | 0.7214 | 0.6438 | 0 |
| Intention to Use | 0.7512 | 0.9005 | 0.58 | 0.8339 | 0.7512 | 0.0506 |
| Performance Expectancy | 0.7568 | 0.9255 | 0 | 0.8929 | 0.7568 | 0 |
| Social Influence | 0.7812 | 0.9146 | 0 | 0.861 | 0.7812 | 0 |
| Trust in Government | 0.7355 | 0.8924 | 0 | 0.8178 | 0.7355 | 0 |
| Use Behavior | 0.5999 | 0.8559 | 0.6906 | 0.7746 | 0.5999 | 0.1795 |

Table 5. Values of Loading Factors

| | EE | FC | II | PE | SI | TIG | US |
|------|--------|--------|--------|--------|--------|--------|--------|
| E1 | 0.8668 | 0.5331 | 0.4645 | 0.6069 | 0.4134 | 0.6287 | 0.4889 |
| E2 | 0.9051 | 0.5125 | 0.4952 | 0.5964 | 0.4342 | 0.5796 | 0.5181 |
| E3 | 0.8536 | 0.6205 | 0.4791 | 0.6586 | 0.5522 | 0.5763 | 0.5278 |
| E4 | 0.879 | 0.5664 | 0.5789 | 0.6229 | 0.5098 | 0.5618 | 0.5071 |
| FC1 | 0.6115 | 0.7892 | 0.5487 | 0.5758 | 0.5512 | 0.5092 | 0.5636 |
| FC2 | 0.5724 | 0.8568 | 0.4762 | 0.6051 | 0.5255 | 0.4523 | 0.567 |
| FC3 | 0.3508 | 0.7579 | 0.587 | 0.5062 | 0.4951 | 0.4143 | 0.5414 |
| II1 | 0.5625 | 0.5946 | 0.872 | 0.4471 | 0.4433 | 0.5873 | 0.6661 |
| II2 | 0.4896 | 0.5701 | 0.893 | 0.448 | 0.4368 | 0.5538 | 0.6869 |
| II3 | 0.4539 | 0.586 | 0.8342 | 0.4621 | 0.4735 | 0.6009 | 0.6349 |
| PE1 | 0.6102 | 0.586 | 0.4012 | 0.8601 | 0.5215 | 0.3831 | 0.4129 |
| PE2 | 0.6261 | 0.6526 | 0.5227 | 0.9166 | 0.5509 | 0.5171 | 0.4776 |
| PE3 | 0.6272 | 0.5913 | 0.4105 | 0.8646 | 0.5668 | 0.4834 | 0.4923 |
| PE4 | 0.6059 | 0.6046 | 0.464 | 0.8363 | 0.5544 | 0.4627 | 0.4447 |
| SI1 | 0.4041 | 0.554 | 0.3902 | 0.5546 | 0.9009 | 0.3591 | 0.4924 |
| SI2 | 0.4098 | 0.565 | 0.4523 | 0.5176 | 0.8956 | 0.3136 | 0.4914 |
| SI3 | 0.6035 | 0.6052 | 0.5164 | 0.5885 | 0.8544 | 0.4986 | 0.5921 |
| TIG1 | 0.6376 | 0.5279 | 0.6186 | 0.5281 | 0.3822 | 0.8914 | 0.6429 |
| TIG2 | 0.6207 | 0.5146 | 0.6089 | 0.5075 | 0.384 | 0.9076 | 0.6248 |
| TIG3 | 0.442 | 0.4257 | 0.4866 | 0.3193 | 0.3983 | 0.767 | 0.5478 |
| US1 | 0.4224 | 0.5559 | 0.6802 | 0.33 | 0.4796 | 0.5611 | 0.7966 |
| US2 | 0.465 | 0.5751 | 0.6157 | 0.4211 | 0.4534 | 0.5602 | 0.7897 |
| US3 | 0.5606 | 0.5925 | 0.592 | 0.5344 | 0.5356 | 0.6132 | 0.8516 |
| US4 | 0.3386 | 0.4148 | 0.4605 | 0.3355 | 0.3831 | 0.4425 | 0.6451 |

To establish the validity of all variables, two assessments were conducted: a convergent validity test and a discriminant validity test. The initial step involved evaluating the loading factor value for each indicator to examine convergent validity. As indicated in Table 5, it was evident that all indicators exhibited a loading factor value exceeding 0.6. This demonstrates that all indicators satisfied the criteria or met the standard, given that the loading factor value for each indicator within the variable exceeded 0.6 [30].

Discriminant validity can be assessed by examining the average variance extracted (AVE) value for each variable [30]. For discriminant validity to be established, the AVE value of a variable must surpass the variance value of the other variables [32]. Table 6 provides information about the AVE value of each variable in the research instrument. The AVE value for each variable exceeded the variance value of the other variables. As a result, it can be concluded that the AVE values for each variable in the study met established criteria.

Table 6. AVE Values for Variables

| | AVE | EE | FC | II | PE | SI | TIG | US |
|-----|--------|----------|----------|----------|----------|----------|----------|----------|
| EE | 0.7679 | 0.876299 | | | | | | |
| FC | 0.6438 | 0.637 | 0.802371 | | | | | |
| II | 0.7512 | 0.5799 | 0.6735 | 0.866718 | | | | |
| PE | 0.7568 | 0.7087 | 0.7016 | 0.522 | 0.869943 | | | |
| SI | 0.7812 | 0.5466 | 0.6547 | 0.5205 | 0.6298 | 0.883855 | | |
| TIG | 0.7355 | 0.6674 | 0.5732 | 0.6699 | 0.5341 | 0.4504 | 0.857613 | |
| US | 0.5999 | 0.5824 | 0.6964 | 0.7648 | 0.5256 | 0.6012 | 0.7073 | 0.774532 |

3.2. Structural Model Evaluation

An evaluation of the structural model was conducted to examine the relationships between each variable in the research model. The results of this evaluation, utilizing SmartPLS V2, are presented in Figure 2. Various criteria were employed to assess the structural model in SEM. The first criterion was the "coefficient determinant" or R² value. As indicated in Table 4, the R² value for the "Intention" variable was 0.580 and for the "Behavior" variable 0.691. According to the categorization by Ramayah et al. in 2018, these values are considered high. This suggests that the overall model can predict user behavior in adopting e-government services at 69%.

The subsequent step in the structural model evaluation entailed testing the "path coefficient" values for the relationships between variables in the research model. Previous research has indicated that the path coefficient for each variable relationship should exceed 0.1. Based on the data analysis results, the path coefficient values for the relationships between variables in the developed research model exceeded 0.1 as indicate in figure 2. Therefore, it can be concluded that the research model satisfies established criteria and is reliable.

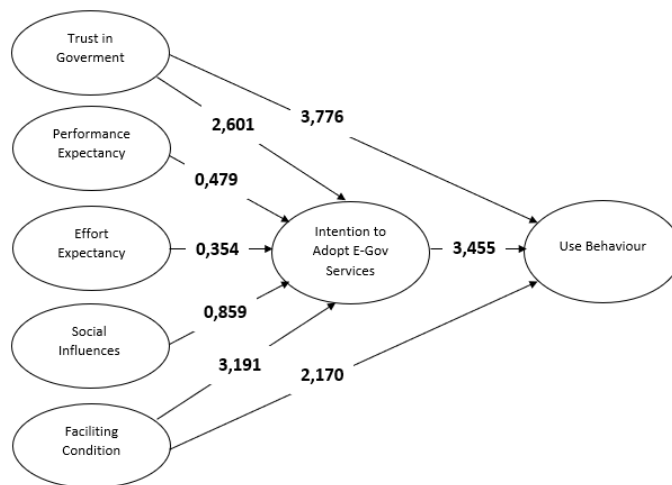


Figure 2. Research Model Evaluation Results

Following the validation of the measurement model and achieving results that align with established criteria, the next step involved testing the hypotheses. Prior to hypothesis testing, validation procedures were conducted, particularly related to the level of explanatory power by examining the R² value of the endogenous

variable. The research model, as developed, can predict user behavior in adopting e-government services with an explanatory power of 69.1%. This places the model within the "fit" category [31].

Having established that the research model fit the criteria, the subsequent step was to test the hypotheses. Hypothesis testing was carried out by considering the path coefficient value, the T-statistic value, and the P-value. Table 7 presented the outlines the path coefficient values for each hypothesis derived from the data analysis using SmartPLS software. A hypothesis was deemed accepted if the T-statistic value was >0.5 and the P-value was <0.05 . Conversely, hypotheses with a T-statistic value <0.5 and a P-value >0.05 were be rejected. The T statistic and P-value served as indicators for accepting or rejecting the hypotheses, in accordance with established research principles.

Table 7. Hypothesis Test Results

| | Path Coeficient | T Statistic | P-Value | Result |
|---------------|------------------------|--------------------|----------------|---------------|
| H1: TIG -> US | 3.776 | 4.2449 | 0.0001 | Supported |
| H2: TIG -> II | 2.601 | 2.6044 | 0.0101 | Supported |
| H3: PE -> II | 0.479 | 0.4379 | 0.6621 | Not Suported |
| H4: EE -> II | 0.354 | 0.3831 | 0.7022 | Not Suported |
| H5: SI -> II | 0.859 | 0.8547 | 0.3941 | Not Suported |
| H6: FC -> II | 3.191 | 3.3996 | 0.0009 | Supported |
| H7: FC -> US | 2.170 | 4.3435 | 0.0001 | Supported |
| H8: II -> US | 3.455 | 3.2759 | 0.0013 | Supported |

Eight hypotheses were developed, each built on the relationships between variables within the extended research model. Among them, hypotheses 1, 2, 6, 7, and 8 were supported by the findings, whereas hypotheses 3, 4, and 5 were not.

The outcomes are intriguing, and the findings regarding the element of trust and its connections to user intention and behavior are noteworthy. The following is a presentation of the results.

Hypothesis 1: This study confirms a significant relationship between public trust in the government and individuals' behavior in using e-government services. Individuals who trust the government are more inclined to use electronic services provided by the government. This finding is consistent with the outcomes of a study conducted by [24] entitled "Analyzing the Critical Factors Influencing Trust in E-Government Adoption From Citizens' Perspective: A Systematic Review and A Conceptual Framework," which also revealed a positive correlation between trust in government and people's utilization of e-government services.

Hypothesis 2: Another noteworthy finding related to the trust factor: a positive relationship was identified between public trust in the government and the intention to adopt electronic services developed by the government. Previous research on public trust in the government in the context of government electronic service adoption has similarly found this positive connection, with trust in the government and trust in the Internet exerting a significant direct influence on behavioral intention.

Hypothesis 3: According to UTAUT, the evaluation of e-government service adoption involves two primary factors: "performance expectancy" and "effort expectancy." The study's findings reveal that these two factors did not significantly influence user intention and behavior in adopting e-government services. Performance expectancy pertains to a user's belief in the benefits they can gain from using e-government services in relation to their work or needs [18]. This study did not identify a significant relationship between these key factors and adoption intentions. The results align with those of a study conducted by [26], which also failed to find a positive correlation between performance expectancy and intention to use the e-government passport site in India. It is suggested that this result may be due to the relatively limited availability of e-government service features within the scope of this research. This limitation is related to the fact that the government is in the initial stages of developing e-government services in the study area, and there are few features available that meet user expectations.

Hypothesis 4: The study also indicates no relationship between effort expectancy and user intention and behavior in the adoption of e-government services. Effort expectancy relates to perceptions of the ease of using technology. This finding may be attributed to the fact that the majority of respondents were millennial students, for whom technology use is not a significant challenge. Constraints related to technology use are not a major issue for this demographic. This finding is consistent with research conducted by [27] entitled "E-Government Adoption in Sub-Saharan Africa," where effort expectancy did not significantly impact intentions and behaviors related to adopting e-government services.

Hypothesis 5: The study also did not identify a relationship between the elements of social influence and intentions to use e-government services. Given that a significant proportion of the respondents were students, who are categorized as millennials, their open attitude toward technological innovation and their personal assessments of using e-government services appeared to have more influence. This outcome is in line with previous results that also found that social influence did not significantly affect user intentions to utilize e-government services.

Hypotheses 6 and 7: It has been challenging for many governments to succeed in implementing their electronic services due to the availability of equipment and facilities. This study demonstrated that respondents agreed that facilitating conditions influenced their intention and behavior in using government services delivered electronically. This implies that the availability of devices is a critical factor that governments should consider when developing electronic-based services. These findings are consistent with research conducted by [29] and [27]; both groups found that the availability of devices and facility conditions influenced behavioral intentions to use e-government services.

Hypothesis 8: Prior research suggests that user intention is closely linked to future behavior in adopting new technology. This study also supports this notion, in line with previous research conducted by [18], [23], and [27], emphasizing the readiness of users to adopt new technology.

4. CONCLUSION

This research was designed to provide insight into the impacts of various factors, such as trust, performance expectancy, effort expectancy, social influence, and facilitating conditions, on the intentions and behaviors of users and communities in using e-government services. The study identified a noteworthy connection between trust in government and the need for facilitating conditions concerning user intentions and behaviors in using e-government services. The study concludes that trust plays a significant role in the adoption of e-government services. The findings reveal that individuals who trust the government are more inclined to use electronic services provided by the government. This positive correlation between trust in government and people's utilization of e-government services is consistent with the outcomes of a study conducted by [25] entitled "Analyzing the Critical Factors Influencing Trust in E-Government Adoption From Citizens' Perspective: A Systematic Review and A Conceptual Framework." Additionally, the study identifies a positive relationship between public trust in the government and the intention to adopt electronic services developed by the government. Previous research on public trust in the government in the context of government electronic service adoption has similarly found this positive connection, with trust in the government and trust in the Internet exerting a significant direct influence on behavioral intention.

However, the study's findings reveal that the two primary factors of UTAUT, "performance expectancy" and "effort expectancy," did not significantly influence user intention and behavior in adopting e-government services. Performance expectancy pertains to a user's belief in the benefits they can gain from using e-government services in relation to their work or needs. This study did not identify a significant relationship between these key factors and adoption intentions. The results align with those of a study.

One notable implication arising from this study is an enhanced understanding of which factors significantly influence, and which do not, users or communities in their use of e-government services. Moreover, the practical knowledge acquired regarding the factors influencing adoption can serve as a foundation for the government to formulate appropriate strategies for encouraging user intentions in using e-government services. This, in turn, will enable the government to allocate resources effectively to enhance the adoption of technology in service delivery.

It is important to acknowledge that this study has limitations, primarily related to the respondent pool, as the majority of the respondents were students. Therefore, future research should aim to include respondents with more diverse characteristics to provide a broader perspective and better understand of the perceptions of users and the broader community.

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