

What Drives E-Voting in Local Governments: Trust, Readiness, Accessibility, or Outcome Expectancy?

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ABSTRACT

This study aims to identify and analyze the key factors driving public acceptance of the electronic voting (e-voting) system at the local government level, particularly in Sleman Regency. This quantitative research extends the Technology Acceptance Model (TAM) by examining the effects of trust in the internet, trust in government, human resource readiness, accessibility, and outcome expectations on the acceptance of the e-voting system. Primary data were collected from 200 respondents through an online questionnaire and analyzed using the Partial Least Squares–Structural Equation Modeling (PLS-SEM) method. The results of the structural model testing indicate that the five independent variables collectively explain 68.5% of the variance in the decision to use e-voting, demonstrating that the model has good predictive power. Specifically, Accessibility, Human Resource Readiness, and Outcome Expectation were found to have positive and significant effects on the intention to adopt e-voting. This suggests that public confidence in the practical benefits of the system (such as efficiency and transparency), along with their level of digital literacy readiness, are the main drivers of technology adoption. Meanwhile, Trust in Government and Trust in the Internet were found to have no significant effect in the early stage of adoption, emphasizing that in the context of new technologies in the public sector, perceived usefulness and user readiness play a more dominant role. The findings contribute theoretically to the extension of the TAM framework and practically suggest that e-voting implementation strategies should focus on enhancing digital literacy and effectively communicating the system's benefits to the public.

Keywords: Accessibility, E-Voting, Human Resource Readiness, Outcome Expectation, Trust.

ABSTRAK

Penelitian ini bertujuan untuk mengidentifikasi dan menganalisis faktor-faktor utama yang mendorong penerimaan masyarakat terhadap sistem electronic voting (e-voting) di tingkat pemerintah daerah, khususnya di Kabupaten Sleman. Penelitian kuantitatif ini memperluas Technology Acceptance Model (TAM) dengan menguji pengaruh kepercayaan terhadap internet, kepercayaan terhadap pemerintah, kesiapan sumber daya manusia, aksesibilitas, dan ekspektasi hasil terhadap penerimaan sistem e-voting. Data primer dikumpulkan dari 200 responden melalui kuesioner daring dan dianalisis menggunakan metode Partial Least Squares-Structural Equation Modeling (PLS-SEM). Hasil pengujian model struktural menunjukkan bahwa kelima variabel independen secara simultan mampu menjelaskan 68,5% variasi keputusan penggunaan e-voting, menjadikannya model yang memiliki daya prediktif yang baik. Secara spesifik, temuan Aksesibilitas, Kesiapan Sumber Daya Manusia, dan Ekspektasi Hasil Manusia memiliki pengaruh positif dan signifikan terhadap niat adopsi e-voting. Temuan ini mengindikasikan bahwa keyakinan masyarakat terhadap manfaat praktis sistem (seperti efisiensi dan transparansi) serta kesiapan literasi digital mereka merupakan pendorong utama adopsi teknologi ini. Sementara itu, faktor Kepercayaan terhadap Pemerintah dan Kepercayaan terhadap Internet ditemukan tidak berpengaruh signifikan pada tahap awal adopsi, menegaskan bahwa pada konteks teknologi baru di sektor publik, manfaat yang dipersepsikan dan kesiapan pengguna lebih dominan. Hasil ini berkontribusi secara teoritis pada perluasan TAM dan secara praktis menyarankan fokus strategi implementasi e-voting pada peningkatan literasi digital dan komunikasi manfaat sistem kepada masyarakat.

Kata Kunci: Aksesibilitas, E-Voting, Kesiapan Sumber Daya Manusia, Ekspektasi Hasil, Kepercayaan.

1. Introduction

The development of information technology has influenced nearly all aspects of life, including public service systems that continue to move toward digitalization. One important innovation in this transformation is electronic voting (e-voting), an electronic device-based voting system that enhances efficiency, transparency, and electoral accuracy. The implementation of e-voting has the potential to minimize vote counting errors and reduce electoral logistics

requirements, thereby supporting the value for money principle in public financial management (Lablih & Sciarini, 2025).

Despite offering various strategic advantages, e-voting implementation still faces numerous obstacles (Fauzi & Habibi, 2023). One of the primary issues that frequently emerges is the low level of user acceptance toward the system. In the context of village head elections and regional elections, some communities still demonstrate skeptical attitudes toward the use of digital

technology in the voting process. These doubts are generally related to system security and reliability, particularly concerning voter data privacy protection and the potential for vote manipulation that may occur if supervisors do not monitor the system properly (Kamran & Ismail, 2025). Such concerns have implications for declining public trust and may affect community interest in participating in e-voting initiatives.

On the other hand, e-voting implementation also faces challenges stemming from factors related to human resource readiness and the uneven distribution of technological infrastructure (Ahmed & Mwandosya, 2024). Not all regions have stable internet access, adequate technological devices, or trained operators to manage the system effectively. This disparity potentially creates inequity in voting administration if the government does not address it systematically. This condition subsequently raises fundamental questions regarding the effectiveness of e-voting as a solution for improving budget efficiency, process transparency, and regional governance accountability. Therefore, factors beyond the system also determine e-voting success, such as community readiness and supporting infrastructure.

User acceptance of new technologies such as e-voting can be explained through the Technology Acceptance Model (TAM) introduced by Davis (1989). This model stems from the understanding that an individual's decision to accept or reject the use of technology is influenced by two main perceptions: perceived usefulness and perceived ease of use. Perceived usefulness refers to the extent to which someone believes that the technology can enhance performance or facilitate their activities, while perceived ease of use relates to the level of effort required to learn, understand, and operate the system. The greater the perceived benefits and the easier the technology is to use, the higher the individual's tendency to adopt it. As research has developed, researchers subsequently expanded TAM to adapt to the context of technology use in the public sector, which has different characteristics, needs, and challenges compared to the private sector. In public technology applications such as e-voting, communities consider not only aspects of benefits and ease of use but also other factors related to security, system reliability, and organizer credibility (Ardianto & Azizah, 2021; Maryuni & Sitorus, 2021). Therefore, researchers need to develop technology acceptance models in the e-voting context to obtain a more comprehensive understanding of user acceptance.

In the context of e-voting, several additional variables are relevant to examine in order to explain user acceptance more comprehensively. First, trust in the internet represents users' confidence that internet-based networks and systems used in the voting process have adequate security levels, stability, and freedom from manipulation or hacking threats. When individuals believe that the technology used can maintain vote confidentiality, reduce the possibility of errors, and preserve data integrity, they will feel more confident and comfortable participating in the e-voting process (Abdala

et al., 2025). Conversely, if there are concerns about system security, users will tend to hesitate and be reluctant to switch from conventional voting methods. Second, trust in government plays an important role in building public acceptance of e-voting implementation. This trust relates to the belief that the government has a commitment to conducting elections or voting transparently, honestly, and accountably (Sirajuddin & Atrianingsi, 2020). If the public believes that the government can maintain fairness in the electoral process and prevent fraud, then the level of acceptance toward e-voting will increase. Therefore, these two aspects of trust become key factors in shaping public attitudes and intentions to use e-voting systems as legitimate and trustworthy alternatives.

Additionally, human resource readiness becomes an important factor in supporting e-voting success. Government officials and technical personnel must possess adequate digital literacy capabilities for the process to run effectively. The next factor, technological accessibility, relates to the extent to which communities can easily access devices and internet networks (Hermawan et al., 2024). Limited access in rural areas can become a serious obstacle to e-voting implementation. Finally, outcome expectations describe the extent to which users believe that e-voting use will provide positive results, such as time efficiency, increased transparency, and ease of the electoral process.

Previous literature emphasizes the role of trust in systems and infrastructure readiness in determining public technology adoption. For instance, research by Alomari (2016) found that trust in government has a significant influence on public intention to use e-government services. Similar results were also found by Al-Fraihat et al. (2020), who confirmed that technological readiness and perceived benefits positively influence user acceptance of digital systems. However, studies examining e-voting from the perspective of user behavior at the local level, particularly considering trust factors and human resource readiness, remain very limited in Indonesia. Differences in social contexts and digital readiness between urban and rural areas also justify the need for this research. The implementation of e-voting in Sleman Regency, for example, demonstrates interesting dynamics because this region has significant variations in digital literacy levels and network infrastructure among sub-districts (Ilham et al., 2024). Therefore, this research is important for understanding how factors of trust, human resource readiness, accessibility, and outcome expectations influence public intention to use e-voting.

Based on the aforementioned discussion, the research problems in this study are: (1) how does trust in the internet influence acceptance of e-voting systems; (2) how does trust in government influence acceptance of e-voting systems; (3) how does human resource readiness influence acceptance of e-voting systems; (4) how does technological accessibility influence acceptance of e-voting systems; (5) how do outcome expectations influence acceptance of e-voting systems. This research

aims to analyze the factors that influence public acceptance of e-voting using an extended Technology Acceptance Model (TAM) approach. The results of this research can provide empirical contributions to efforts toward realizing more transparent, accountable, and efficient governance through the implementation of digital technology that is trustworthy and easily accessible to the public.

2. Theoretical Foundation

Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) was first proposed by Davis (1989) as a development of the Theory of Reasoned Action (TRA), which explains the relationship between beliefs, attitudes, intentions, and individual behavior in using technology. The main purpose of TAM is to explain the factors that influence user acceptance of information technology, making this model widely used to understand how someone evaluates, responds to, and decides to use a particular technology. In digital system adoption research, TAM helps explain why a technology is accepted or rejected based on users' initial perceptions and beliefs (Ardianto & Azizah, 2021).

Compared to other models such as TRA and Theory of Planned Behavior (TPB), TAM is more specific in the technology context because it emphasizes two main constructs: perceived usefulness and perceived ease of use. These two constructs explain that users will tend to accept a technology if they believe that the technology provides real benefits and is easy to use. Therefore, TAM provides a strong theoretical foundation for understanding technology acceptance behavior in various contexts, including the public sector and digital systems such as e-voting, where perceptions of usefulness and ease of use become the main determinants of public intention to participate (Ardianto & Azizah, 2021; Maryuni & Sitorus, 2021).

Literature Review

In the context of e-voting implementation in Indonesia, particularly at the regional level, public acceptance of this system is influenced not only by factors of ease and usefulness but also by social and institutional dimensions. One of these is trust in the internet, which refers to the extent to which the public trusts the security and reliability of internet-based systems (Abdala et al., 2025). This can also be interpreted as the extent to which individuals feel safe and confident about the integrity and security of online systems (Farooq et al., 2024). This trust is important because e-voting involves online data transmission that is vulnerable to risks of leakage or manipulation (Sadam et al., 2024). In the TAM context, this trust influences perceived usefulness and perceived ease of use because users who trust digital infrastructure will more easily accept new technology. Previous research indicates that trust in the internet has a positive and significant effect on e-voting implementation (Wulandari et al., 2023; Adliyani & Marsono, 2013).

Furthermore, trust in government also plays an important role in shaping public perceptions of e-voting systems. Trust in government as the organizer is crucial because e-voting systems involve institutional authority and public decisions. When the public perceives that the government has good integrity and transparency in managing digital systems, the level of acceptance toward e-voting will increase (Wirtz & Müller, 2019). A study conducted by Abdala et al. (2025) shows that trust in government plays an important role in enhancing system adoption. Additionally, research conducted by Farooq et al. (2024) confirms that trust in organizing institutions influences intention for online voting.

From an internal perspective, human resource readiness is a crucial element in supporting successful e-voting implementation. This readiness includes technical capabilities, digital literacy, and organizational support in facilitating the use of new systems (Kamran & Ismail, 2025). Research conducted by Haq et al. (2020) proved that the level of human resource readiness does not have a significant influence on e-voting system implementation. However, different findings were presented by Maryuni & Sitorus (2021), who indicated that human resource readiness actually plays a significant role in supporting successful e-voting implementation.

Meanwhile, accessibility relates to the ease with which communities can access e-voting systems, both in terms of network infrastructure and device availability. Digital access inequality between urban and rural areas can cause disparities in the effectiveness of e-voting implementation (Ahmad & Siddique, 2024). Finally, outcome expectations describe the extent to which individuals believe that using e-voting will provide better, more efficient, and more transparent results compared to conventional methods. Positive expectations regarding the benefits produced will increase individual intention to accept and use the system (Venkatesh et al., 2012). Based on the above discussion, the research hypotheses are as follows:

- a. **H1:** Trust in the internet positively influences e-voting acceptance.
- b. **H2:** Trust in government positively influences e-voting acceptance.
- c. **H3:** Human resource readiness positively influences e-voting acceptance.
- d. **H4:** Accessibility positively influences e-voting acceptance.
- e. **H5:** Outcome expectations positively influence e-voting acceptance.

3. Methodology

This research employs a quantitative approach with a survey method to analyze the factors that influence e-voting implementation in regional government. This approach was chosen because it can provide an objective overview of the relationships between variables measured through numerical data. Through the survey approach, researchers can collect data directly from respondents who have experience or perspectives on the use of e-voting systems. The data

obtained are then processed statistically to test the relationships and influences between variables that have been formulated in the research model. This research uses SmartPLS to test the influence between variables.

The population in this research consists of all citizens who have voting rights in Sleman Regency. The selection of this location was made because the region has adequate digital infrastructure readiness and often serves as a pilot area for implementing technology-based public service innovations. From this population, the research sample was determined using the formula proposed by Hair et al. (2019), which is five to ten times the number of indicators used in the analysis model. With a total of 25 indicators, the minimum number of samples required in this research is 125 respondents. This number is considered adequate to obtain representative results and enables further statistical analysis such as factor analysis and regression.

The selection of respondents was conducted randomly so that every citizen who meets the criteria has an equal opportunity to participate. This technique is expected to reduce potential bias in data collection. Therefore, the results of this research are expected to accurately describe the perceptions of the Sleman Regency community regarding the factors that influence their decisions to support and use e-voting systems in the regional government environment.

3.1 Data

This research uses primary data obtained through the distribution of online questionnaires based on Google Forms. This method was chosen based on considerations of efficiency in data collection as well as its ability to reach respondents with heterogeneous digital literacy characteristics and technology access. Online questionnaires facilitate rapid data collection processes without being constrained by geographical limitations, making them suitable for the research population characteristics that comprise digital technology users. Additionally, this method provides flexibility for respondents to complete questionnaires according to their available time and devices.

The questionnaire instrument was systematically constructed based on indicators from each variable in the research model, including trust in the internet, trust in the government, human resource readiness, accessibility, and outcome expectancy. Each indicator was operationalized into statement items using a Likert scale to measure respondents' level of agreement. Before distribution, the instrument underwent a pilot testing phase to ensure content validity and readability of statement items. This process aims to guarantee that the quality of collected data meets validity and reliability standards.

The questionnaire distribution results obtained 200 respondents whose data could be processed further. This sample size has met the required minimum criteria, so it is considered representative for describing public perceptions of the factors that influence e-voting implementation at the regional government level. The

collected data were subsequently analyzed using statistical methods to test the research model and identify causal relationships between variables.

3.2 Operational Definition and Variable Measurement

Trust in the Internet

Trust in the internet represents the primary implementation of information and telecommunications technology that continues to develop to this day. In the e-voting context, the internet plays a very crucial role. Trust becomes an important factor when the public must make decisions in online voting. This concept refers to the belief that internet technology advancement provides benefits to its users. These benefits are particularly evident when e-voting is used to facilitate the voting rights of the general public. The rapid development of internet technology in the modern era demands a balance with democratic practices in Indonesia. Therefore, collaboration between democracy and technology needs to be applied in the administration of general elections. This innovative approach aims to provide confidence to the public that the new electoral system is designed to facilitate their participation (Hardianti et al., 2022). The indicators for measuring this variable are presented in Table 1.

Table 1. Trust in The Internet

No	Indicator	Source
1	Public trust in the usefulness of the application.	(Sirajuddin & Atrianingsi, 2020)
2	Trust in the information displayed.	
3	Trust in the application's interface.	
4	The public feels secure when using the e-voting application.	(Jayaputra & Kempa, 2022)

Trust in Government

Trust in government becomes one of the important concepts that the public must possess in e-voting implementation. This concept measures the extent to which the public trusts the government's ability to act morally and fairly. Public trust has a significant influence on policies formulated by the government. When the government initiates the implementation of electronic-based electoral systems, this will influence public readiness to adopt such technology. Therefore, public trust becomes a crucial factor that determines the success of new technology implementation in government systems, particularly for e-voting (Hardiyanti et al., 2022). The indicators for measuring this variable are presented in Table 2.

Table 1. Trust in Government

No	Indicator	Source
1	Public trust in the government	(Zainudin et al., 2022)
2	Public trust in election officers or voting committee members	(Wilestari & Ramadhani, 2020)
3	Public trust in the legal system	
4	Public trust in the confidentiality of users' personal data	(Sirajuddin & Atrianingsi, 2020)
5	Public trust in the e-voting services provided by the government	

Human Resource Readiness

Readiness to adopt e-voting systems in the administration of general elections in Indonesia requires special attention. The government needs to consider the conditions of voters as well as the country's capability in managing e-voting technology. Although e-voting has various advantages and disadvantages, this system is actually feasible for implementation in Indonesia. Nevertheless, many regions still require greater attention from the government regarding supporting facilities and infrastructure. Several aspects that need attention include electricity availability, internet network access, e-voting experts, and the still-low level of public digital literacy. This condition creates two contradictory situations: the government's need to implement e-voting versus public and regional infrastructure readiness to support the system (Utami, 2021). The indicators for measuring this variable are presented in Table 3.

Table 3. Indicators of Human Resource Readiness

No	Indicator	Source
1	The level of public skills influences the implementation of e-voting.	(Utami & Diah Kusumawati, 2021)
2	The level of public knowledge influences the implementation of e-voting.	
3	The level of public understanding influences the implementation of e-voting.	(Zubaidi et al., 2019)
4.	I believe the government is fully responsible for the implementation of e-voting.	(Wardani & Andriyani, 2017)

Accessibility

The implementation of e-voting systems provides a number of significant advantages in the administration of general elections. This system is capable of improving efficiency and drastically accelerating the vote counting process compared to conventional manual methods. Another advantage is the minimal errors caused by human factors (human error), so that counting results become more accurate and can be obtained in a much shorter time. From the accessibility perspective, e-voting provides convenience for voters through the provision of online platforms that are more practical and flexible. This platform allows the public to exercise their voting

rights without being bound by rigid time and location constraints. This advantage is particularly felt by voters who are abroad, who have been facing various obstacles in participating in elections. Besides technical and accessibility aspects, e-voting also strengthens the principles of transparency and accountability in the democratic process. Systematic digital recording enables every stage of the election to be tracked and audited more easily, thus increasing public trust in electoral integrity (Wibowo, 2023). The indicators for measuring this variable are presented in Table 4.

Table 4. Indicators of Accessibility

No	Indicator	Source
1	E-voting is publicly communicated through mass media.	(Lasono & Diyono, 2024)
2	<i>E-voting is easily accessible.</i>	
3	<i>E-voting provides information related to the election.</i>	
4	E-voting information can be accessed online.	

Outcome Expectations

Outcome expectations represent an individual's tendency to utilize their knowledge and information as guidance in organizing and directing future behavior. This concept is closely related to how someone stores experiences and information in their memory, then uses them as a basis for decision-making. Goldman (2002) defines expectancy as an individual's belief about the potential impact or consequences that will be obtained from their involvement in a particular behavior. Outcome expectations are the belief that system use will provide the expected benefits. If system performance does not meet expectations, usage interest decreases, but if it meets or exceeds expectations, then interest and acceptance of the system will increase (Pribadi, 2020). In other words, individuals will consider expected outcomes before deciding to engage in an activity. Donovan (1988) expands this understanding by emphasizing that outcome expectations play a crucial role in influencing individual decisions to use an object or system, whether legal or non-legal in nature. In the context of general elections, outcome expectations become an important factor that influences public willingness to adopt and use e-voting systems (Anggara & Putera, 2021). The indicators for measuring this variable are presented in Table 5.

Table 5. Indicators of Outcome Expectancy

No	Indicator	Source
1	E-voting is capable of increasing productivity.	(Fasbender, 2019)
2	E-voting is able to improve output quality.	
3	E-voting provides benefits for the public.	

No	Indicator	Source
4	E-voting is a system that can enhance election performance.	
5	The use of computer-assisted information technology can improve performance in the electoral sector.	

3.2 Analysis Method

Data in this research were analyzed using the Partial Least Squares - Structural Equation Modeling (PLS-SEM) method with the assistance of SmartPLS 4.0 software. This method was chosen because it is capable of testing relationships between latent variables simultaneously and remains robust even when data are not normally distributed (Hair et al., 2019). Validity testing was conducted by examining outer loadings values and Average Variance Extracted (AVE), while reliability was measured through Composite Reliability and Cronbach's Alpha.

Subsequently, hypothesis testing was conducted using t-statistics values with significance thresholds of 1%, 5%, and 10%, where variables are declared to have a significant effect if the t-statistics value is greater than 1.96 (Hair et al., 2019). The coefficient of determination test (R^2) was used to measure the magnitude of the model's ability to explain variation in the dependent variable, while the Goodness of Fit (GoF) test was used to assess the extent to which the model as a whole fits the empirical data (Hair et al., 2019).

4. Research Results and Discussion

4.1 Research Results

Table 6. Convergent Validity Test Results

No	Variable	Code	Loading	AVE
1	Trust in The Internet (TII)	TII 1	0,918	0,787
2		TII 2	0,907	
3		TII 3	0,931	
4		TII 4	0,785	
5	Trust in Government (TIG)	TIG 1	0,887	0,770
6		TIG 2	0,824	
7		TIG 3	0,898	
8		TIG 4	0,857	
9		TIG 5	0,918	
10	Human Resources Readiness (HRR)	HRR 1	0,955	0,755
11		HRR 2	0,918	
12		HRR 3	0,871	
13		HRR 4	0,774	
14	Accessibility (ACC)	ACC 1	0,769	0,641
15		ACC 2	0,866	
16		ACC 3	0,842	

No	Variable	Code	Loading	AVE
17	Outcome Expectancy (OE)	ACC 4	0,719	0,831
18		OE 1	0,906	
19		OE 2	0,875	
20		OE 3	0,939	
21		OE 4	0,926	
22	E-voting (EV)	EV 1	0,850	0,687
23		EV 2	0,789	
24		EV 3	0,862	
25		EV 4	0,803	

Source: Author's work, 2025

Based on the convergent validity test results in Table 6, all indicators have outer loading values above 0.70, indicating that each item has a strong contribution in representing its respective construct. This aligns with the criteria recommended by Hair et al. (2019), which states that an indicator is considered convergently valid if the loading factor value is greater than 0.70. The AVE values for each construct also exceed the minimum threshold of 0.50, confirming the latent construct's ability to explain more than 50% of its indicators' variance. The trust in internet construct has the highest AVE value of 0.787, while the lowest AVE value is found in the Accessibility construct at 0.641, which is still in the good category. Therefore, all constructs in this model have met the convergent validity criteria.

Meanwhile, discriminant validity in this research was tested using the Heterotrait-Monotrait Ratio (HTMT) approach. HTMT values must be less than 0.90 to ensure that latent constructs in the model have sufficient differences and that there are no high correlation problems between constructs. Values below this threshold indicate that each construct has good discriminant validity (Henseler et al., 2015). Based on the test results shown in Table 7, all HTMT values between constructs in this research are below 0.90. Therefore, it can be concluded that each construct has adequate discriminant validity, and there is no overlap between the variables measured in the model.

Furthermore, Composite Reliability (CR) and Cronbach's Alpha (CA) values must exceed 0.70 to demonstrate good reliability (Hair et al., 2019). Based on the results presented in Table 7, all constructs have CR and CA values above this threshold, ranging from 0.813 to 0.952 for CA and 0.877 to 0.952 for CR, so it can be concluded that all variables in the model have good internal consistency and are reliable for measuring their respective constructs. Subsequently, the structural model evaluation results in Table 7 show an R^2 value for the dependent variable E-Voting of 0.685, which according to Hair et al. (2019) falls into the moderate to substantial category. Therefore, the independent variables in this research collectively can explain 68.5% of the variation in public decisions to use e-voting, so the model has

adequate predictive capability and is suitable for further analysis.

Table 7. Heterotrait-Monotrait Ratio (HTMT), Composite Reliability (CR), Cronbach's Alpha (CA), and Adjusted R-Square.

	ACC	EV	HRR	OE	TIG	TII
Accessibility (ACC)						
E-Voting (EV)	0,784					
Human Resource Readiness (HRR)	0,518	0,550				
Outcome Expectancy (OE)	0,781	0,894	0,412			
Trust in Government (TIG)	0,468	0,526	0,185	0,582		
Trust in The Internet (TII)	0,707	0,727	0,473	0,824	0,691	
Composite Reliability	0,877	0,898	0,925	0,952	0,944	0,936
Cronbach's Alpha	0,813	0,848	0,890	0,932	0,928	0,909
R-Square	0,685					

Source: Author's work, 2025

$$GoF = \sqrt{AVE \times R\text{ squared}}$$

$$GoF = \sqrt{0,8942 \times 0,685}$$

$$GoF = 0,7826$$

After reliability testing was conducted to ensure indicator consistency in measuring latent variables, the next step is to perform a Goodness of Fit (GoF) test to assess the strength and suitability of the overall research model. GoF is a comprehensive measure that combines average variance extracted (AVE) values and average R-square to determine the extent to which the model can explain the phenomenon being studied. Generally, a GoF value of 0.10 is categorized as small, 0.25 indicates a moderate level of fit, and 0.36 or higher indicates a large model fit (Hair et al., 2019). Based on the calculations performed, a GoF value of 0.7826 was obtained. This value is far above the large fit category, so it can be concluded that the model has a very good level of fit. This means that the research model is able to explain the relationships between latent variables strongly and adequately. Therefore, the model is suitable for use in further analysis in the hypothesis testing stage and drawing research conclusions. Tabel 8 menunjukkan hasil uji hipotesis.

Table 8. Hypotheses Test Result

Hypotheses	Coeff. Value	T-Stat.	P Value	Result
H1: ACC → EV	0,160	1,864	0,063	Supported
H2: HRR → EV	0,178	2,058	0,040	Supported
H3: OE → EV	0,610	5,947	0,000	Supported
H4: TIG → EV	0,086	1,489	0,137	Not Supported
H5: TII → EV	-0,047	0,480	0,631	Not Supported

Source: Author's work, 2025

4.2 Discussion

The research results identify that public decisions to use e-voting systems are influenced by several main factors, with Outcome Expectations as the most dominant variable. Outcome Expectations reflect individuals' perceptions of the benefits and advantages gained from technology use. This pattern reflects that the public is more likely to adopt e-voting if they believe the system can improve efficiency, transparency, and security in the electoral process. In this context, trust in technology benefits becomes the key factor in encouraging public adoption of digital systems. When users feel that e-voting use can save time, reduce potential fraud, and provide convenience in electoral participation, the level of acceptance toward this system will increase significantly. These research results align with studies conducted by Alamoudi et al. (2024) and Kim et al. (2024), which proved that outcome expectations influence technology usage behavior.

Furthermore, outcome expectations also reflect the level of public awareness of the importance of democratization process modernization through information technology utilization. Communities that have better understanding of technology potential in improving public governance quality tend to be more open to innovations such as e-voting (Farooq et al., 2024). This demonstrates that benefit perception aspects are not only related to individual advantages but also to social values and trust in electoral organizing institutions. Therefore, to improve e-voting adoption, effective public communication strategies are needed to strengthen positive public perceptions of this system's benefits, accompanied by government efforts to guarantee the reliability and security of the technology used (Lablih & Sciarini, 2025; Zaki & Mutiarin, 2024). Thus, the success of e-voting implementation depends greatly on the extent to which the public believes that the system truly provides added value in creating more efficient, transparent, and trustworthy electoral processes.

Besides outcome expectations, human resource readiness is also proven to play an important role in supporting e-voting use. Human resource readiness is not only related to technical capabilities in operating devices but also includes knowledge of system procedures, understanding of data security, as well as mental readiness and acceptance attitudes toward new

technology. Individuals who have adequate digital literacy levels generally adapt more quickly to changes in voting systems from manual to digital methods. This finding indicates that technology acceptance is not only a matter of infrastructure availability but also the readiness of individuals who will use it. These results align with research by Alomari (2016), which confirms that skill confidence and technological capabilities possessed by human resources significantly influence e-voting adoption. This means that the higher someone's confidence in their technical abilities, the greater the likelihood they will accept and use e-voting systems. This differs from findings by Faturrahman (2022), which concluded that human resource readiness has not yet been able to ensure successful e-voting implementation. This study identifies that individuals who have better digital literacy and adequate understanding of the system tend to be more confident in using e-voting.

The accessibility factor also has a positive influence on e-voting adoption, although its influence tends to be smaller compared to outcome expectations and human resource readiness. Accessibility refers to the ease with which the public can access and operate e-voting systems, both from physical and digital aspects. Previous studies have proven that ease of use of a technology system will encourage individuals to be more willing to adopt it (Purwanto et al., 2024). In the e-voting context, accessibility can include the availability of devices such as smartphones or computers, stable internet networks, and simple system interfaces that are easily understood by various groups. Therefore, although its influence is not as large as other factors, accessibility remains a basic condition that needs to be fulfilled. Without equal access, public participation in e-voting processes has the potential to be unbalanced, so that the efficiency and inclusivity goals of implementing this system become less optimal.

On the other hand, trust in government and trust in the internet do not show significant influence on public decisions to use e-voting. This result indicates that in the early stages of technology adoption, individuals tend to consider practical benefits and ease of use more than aspects of trust in organizing institutions or digital infrastructure. This finding differs from Urumsah's research (2015), which links trust with e-service usage, as well as a study by Azizah (2018), which confirmed that trust in technology greatly influences e-voting activity implementation. Additionally, other research by Zaki & Mutiarin (2024) also shows that trust in government is directly related to e-voting system acceptance. This result inconsistency implies that the role of trust may not be direct in the early adoption stage but plays more of a role in the continuance intention stage, when the public begins to assess stability, long-term security, and government consistency in guaranteeing fairness and data protection in e-voting systems. Therefore, trust remains relevant, but its dominant influence likely emerges after users have real experience with the system.

Overall, this research confirms that e-voting adoption depends heavily on benefit perceptions and user readiness, while other factors such as trust play supporting roles. This finding has several important implications. Theoretically, this research strengthens TAM's relevance in the context of public technology adoption while adding empirical evidence that human resource readiness is an important contextual factor that can influence technology acceptance. Practically, the results of this research emphasize that e-voting implementation strategies should focus on improving system benefits for users, strengthening digital literacy, and providing equal access, so that public participation can increase significantly.

5. Conclusion

This research aims to analyze the factors that influence public decisions to use e-voting systems. Based on the structural model testing results using PLS-SEM, it was found that the variables Accessibility (ACC), Human Resource Readiness (HRR), Outcome Expectations (OE), Trust in Government (TIG), and Trust in Internet (TII) collectively can explain 68.5% of the variation in e-voting usage decisions. This proportion indicates that the model has strong predictive power for e-voting acceptance behavior.

More specifically, hypothesis testing results show that several variables significantly influence e-voting adoption, while others do not show meaningful effects. The positive and significant influence of outcome expectations and trust in government variables confirms that public perceptions of expected benefits and the level of trust in government are key factors in encouraging e-voting use. Meanwhile, human resource readiness and accessibility factors show more limited roles, indicating that ease of access and human resource readiness have not yet become primary determinants in the context of electoral technology implementation in Indonesia.

Theoretically, this finding strengthens the relevance of the Technology Acceptance Model (TAM) and trust theory in explaining public technology adoption behavior. This research confirms that beyond usefulness and ease factors, aspects of trust in public institutions have significant influence on digital-based technology acceptance. Practically, the results of this research provide input for policymakers and election organizers that successful e-voting implementation depends not only on technology readiness but also on efforts to build public trust through transparency, system security, and public education.

However, this research has several limitations. First, the variables used have not covered all aspects that may influence e-voting adoption decisions, such as social, cultural, and cybersecurity risk perception factors. Second, this research uses cross-sectional data, so it cannot yet capture changes in public perceptions over time. Considering these limitations, future researchers are advised to add new variables such as perceived risk, social influence, or cybersecurity concern to enrich the theoretical model used. Additionally, a longitudinal

approach can be conducted to observe the dynamics of e-voting acceptance over a certain period. Follow-up research can also be conducted using a comparative approach between regions or countries to understand differences in e-voting acceptance levels in diverse socio-political contexts.

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