



Community Acceptance of *SIKESAL*: An UTAUT Model Approach in E-Government Services in Jambi City

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Abstract.

Purpose: This research examines the factors influencing public acceptance of e-government services, particularly the Sikesal system in Jambi City. The urgency of this research lies in its potential to improve the quality of public services, increase community engagement, and support digital transformation goals in Jambi City. This study contributes to understanding how local communities perceive and utilize e-government services, providing insights to improve service design and Using the Unified Theory of Acceptance and Use of Technology (UTAUT) model, we evaluated variables including Performance Expectancy, Effort Expectancy, Social Influence, and Facilitating Conditions. The study utilized a quantitative approach, collecting data through questionnaires distributed to 100 respondents, selected using the Slovin formula.

Result: Results indicate that Effort Expectancy significantly impacts the use of e-government services (T value of 18.339, P value of 0.000), highlighting the importance of user-friendliness. However, performance expectancy, social influence, and facilitating conditions did not significantly impact.

Novelty: The novelty of this study lies in its localized examination of e-government acceptance, providing insights for targeted improvements in service design and implementation.

Keywords: UTAUT, E-government, SIKESAL

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INTRODUCTION

The utilization of information technology in public services has increased along with technological advances. E-Government, often known as electronic government, is an innovative approach adopted by several governments to enhance the accessibility, efficiency, and openness of their services. Internationally, the utilization of electronic government has emerged as a crucial effort to improve effectiveness, openness, and engagement in the public administration of services [1]. Indonesia has promoted the implementation of electronic government at the national level as a method of advancing digital transformation, improving service quality, and streamlining administrative processes [2]. In the Indonesian context, the implementation of e-government aims to increase government efficiency and speed up the delivery of services to the community. Indonesia's progress in implementing e-government seeks to enhance public services, streamline government administration, and promote transparency using information and communication technologies. The objective of implementing e-government is to facilitate public engagement with the government, reduce administrative red tape, and offer accessible services at all times and from any location [3]. Although the government has made efforts to encourage the utilization of this service, the Degree of public acceptance of e-government still varies and is influenced by various factors.

Electronic government arose as a solution to enhance the caliber of government services by using technology. Digital government uses ICT to offer services and information to the public, businesses, and other government bodies [4]. Implementing electronic government aims to establish a government characterized by enhanced efficiency, effectiveness, transparency, and responsiveness to the community's demands. Digital government encompasses a wide range of areas, including the dissemination of public information through online platforms, the provision of digital administrative services, and the creation of platforms for community engagement [5]. E-government enables individuals to conveniently access

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government services remotely, eliminating the physical need to visit a government office. This increases convenience for the community and helps the government manage resources more efficiently [4].

Nevertheless, in Indonesia, technology integration into governmental services still faces various challenges that must be overcome. Although the government has launched multiple initiatives and programs to support the execution of electronic government, several challenges remain that must be surmounted [6]. Some problems include limited technological infrastructure, resistance to change, and digital divides in various regions. One of the biggest challenges is the need for adequate technology infrastructure. Many areas, mainly rural and remote areas, still need more stable and fast internet access. This makes it challenging to implement e-government services that require an internet connection for its operation [7]. This uneven technological infrastructure leads to inequality in access to government services, where urban areas are usually more favored than rural areas. Nevertheless, there has been significant progress in this area, where according to the United Nations E-Government survey of 2022, Indonesia's position rose from 88th in 2020 to 77th in 2022 [8].

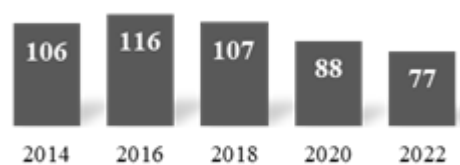


Figure 1. E-government development index for indonesia
Source: Results of United Nations E-Government Survey 2022

In addition, e-government implementation often needs to be more responsive to government employees who are used to the conventional way of working. They may feel uncomfortable or unprepared to adapt to new technologies. This resistance can stem from various factors, including a lack of understanding of the benefits of technology, fear of losing their jobs, or simply discomfort with change [9]. The digital divide is another significant issue. It refers to the differences in access to and ability to use technology between different groups. This gap not only exists between geographical areas but also between socio-economic groups. Less affluent communities often have more limited access to technological devices and the internet, so they can less utilize e-government services [10]. Data on Indonesian internet users in 2022 showed a significant increase from the previous year. However, several provinces still need higher levels of digital literacy and special attention [11]. One of them is in eastern Indonesia, such as Papua and Maluku. One of the factors that makes ICT development in these areas is the need for more access to adequate ICT infrastructure. ICT is an essential factor in the progress of a country and increasing people's digital literacy[12].



Figure 2. ICT development index in 34 indonesian provinces (2022)
Source: Central bureau of statistics (bps) report

The constraints of technological infrastructure remain a primary barrier to the successful adoption of electronic government in Indonesia [13]. Many areas, especially in remote areas, still need adequate internet and information technology access. This hampers the government's ability to provide equitable digital

services throughout Indonesia. In addition, resistance to change is also a challenge in implementing e-government. Many government employees are still used to the conventional way of working and feel reluctant to switch to the digital system [14]. Intensive training and socialization are necessary to guarantee that all relevant parties comprehend and are prepared to embrace technology in the public service process. Each region has different characteristics and needs, so the approach must be adjusted [15]. This effort requires collaboration between the central and local governments and active community participation. Local governments need to identify the needs and preferences of regional communities when designing and implementing e-government services. This can be done through various means, such as surveys, public discussions, and consultations with related parties [16]. By understanding the needs of local communities, the government can design e-government services that are more relevant and beneficial to the community.

An actual instance of electronic government deployment across Indonesia is utilizing the Online Community Complaint Service (Sikesal) in Jambi City. Sikesal is a platform that allows the public to submit complaints and get solutions from the government quickly and efficiently. Implementing this platform is anticipated to enhance civic engagement in governmental procedures and the standard of public services in Jambi City. Sikesal is a platform that simplifies reporting concerns regarding various issues, including infrastructure, health services, education, and more. This portal enables convenient public access to government services, eliminating the need for direct visits to government offices. This not only saves time and money but also increases the transparency and accountability of the government in handling public complaints.



Figure 3. SiKESAL application display

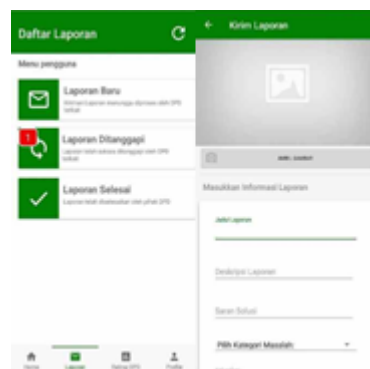


Figure 4. SiKESAL application menu options

The deployment of Sikesal in Jambi City highlights the need to research the public acceptability of electronic government services like Sikesal. This study is crucial for comprehending the public's reception of electronic government services, such as Sikesal, in Jambi City. By comprehensively understanding the variables that influence public acceptability, the government may effectively recognize and address barriers and potential advantages to enhance the general standard of electronic government services [17]. Furthermore, his study offers a valuable understanding of the most effective ways to apply technology to fulfill societal requirements. The effective adoption of e-government relies heavily on the crucial issue of public acceptability of electronic government technology. Achieving the objective of enhancing the

efficiency and effectiveness of public services through implementing electronic government relies on the public's widespread acceptance and utilization of electronic government services [18]. Therefore, this study aims to determine the variables that influence the level of public support for e-government services and to offer suggestions to the government on how to enhance the design and implementation of electronic government services.

Previous research has shown that several key factors influence e-government adoption. Katsonis and Botros, in 2015 [19], revealed that the government's adoption of digital technology can improve the effectiveness and quality of public services. Digital technology [20], Digitalization can speed up administrative processes that were previously time-consuming, improve accuracy, and reduce human error. Technology also allows for integrating data and information, which helps in better and faster decision-making. Tessema and Cavus, in 2024 [21], highlighted that technology opens up opportunities for the government to increase public participation in the government process through various digital platforms. This creates a more transparent and accountable environment where the public can monitor and supervise government performance. Susanto and Bahaweres (2013) [6] show that technological infrastructure constraints and resistance to change are the main obstacles to adopting e-government. Central in 2020 [13] added that limited access to technology in remote areas hinders the government's ability to provide equitable digital services. Ahmad and Alshurideh in 2024 [22] emphasized that the implementation of e-government at the regional level needs to be adjusted to local characteristics and needs. Cooperation between the central and local governments and the active participation of local communities is essential to ensure that e-government services are relevant and beneficial to local communities.

Previous studies have addressed various aspects of e-government adoption but still need to be improved in highlighting specific public acceptance of online community complaint services such as Sikesal. Some researchers focus on technical or policy aspects in the implementation of e-government. At the same time, this study will examine the community's perspective as service users by considering the social, cultural, and economic aspects that affect public acceptance. Therefore, this study aims to fill the gap by exploring the factors influencing public acceptance of Sikesal services in Jambi City. A Few researchers focus on the aspect of public acceptance of online complaint services such as Sikesal. Research related to e-government mainly focuses on technical and policy aspects without paying attention to the community's perspective as a whole. Therefore, this study intends to explore the factors that affect public acceptance of Sikesal services in Jambi City. This study aims to understand the dynamics of e-government acceptance better locally and offer a more comprehensive contribution in this context.

To achieve the objectives of this study, the method used is a quantitative approach using the Unified Theory of Acceptance and Use of Technology (UTAUT) model. Data was collected through a questionnaire distributed to 100 respondents selected using the Slovin formula. The questionnaire was created using Google Forms and distributed via WhatsApp to maximize the reach of respondents and the efficiency of the data collection process. The data collected was analyzed using Structural Equation Modeling (SEM) with Partial Least Square (PLS) technique and SmartPLS-4 software assistance. This SEM-PLS approach allows the assessment of complex and interrelated data, and the validity and reliability of the research instruments were tested through convergent and discriminant validity and reliability tests to assess the internal consistency of the research instruments.

Literature review and theoretical framework

Citizen use of e-government

Government agencies use digital resources and infrastructure to deliver public information and services. This has brought about substantial alterations in how individuals engage with the government. Research indicates that e-government projects enhance accessibility, effectiveness, and openness in government services [23]. E-government relies on public acceptance of digital services, notwithstanding their many benefits. Factors such as government confidence perceived simplicity of utilization, and technological accessibility are essential in influencing the rate of adoption [24] The e-government initiative has succeeded in nations that stress a community-centric approach, ensuring that services are tailored to the specific requirements and preferences of those living there. For instance, in the United States, electronic government enhances service provision and government transparency by incorporating corporate ideas into public administration.

Conversely, in China, e-government projects prioritize enhancing control and supervision over local governments, reinforcing centralized authority [23]. Public reliance on e-government services is a crucial factor in its use. Research shows that having confidence in government-related websites is unequivocally associated with general public satisfaction and perception of the reliability of online services [25]. Trust-building measures, such as ensuring data security and transparency, are crucial for enhancing public acceptance of electronic government services [26]. In addition, public interaction with e-government services has been linked to increased trust and confidence in the government [27]. E-government facilitates better public engagement by providing a platform for citizens to access information and participate in government processes [28], [29]. These interactions are not limited to the dissemination of information but also include transactional services such as online voting and permit renewals, which are more convenient and efficient than traditional methods [29]. However, the effectiveness of these platforms depends on the inclusivity and usability of the digital services provided [30], [31]. Ultimately, the effectiveness of e-government deployment depends on several aspects, including trust, ease of use, and inclusivity of the services offered [31]. Governments must adopt a community-centered approach, ensuring that digital services are accessible, reliable, and meet the needs of all citizens to increase adoption rates and improve public service delivery.

UTAUT

The UTAUT model is a theory developed to describe the factors that influence people in accepting and using technology. The introduction of this concept was first pioneered by [32]. It has gained significant popularity and is often used in studies on technology uptake. The UTAUT framework is a complete integration of eight existing theories and concepts. The model comprises four main elements that are believed to impact the purpose and behavior of the technology utilized: Performance Expectancy, Effort Expectancy, Social Influence, and Facilitating Conditions. Performance Expectancy is a person's conviction that technology can improve job performance and provide a competitive advantage. This is a pivotal indicator of the likelihood of using technology, showing that people are more inclined to use telecommunications, which can improve their performance. An individual's idea of how simple a technology will be without much work is called effort expectation [33]. Social influence pertains to the degree to which people experience societal pressure to adopt or refrain from using specific technology. This indicates that the endorsement and motivation provided by others, such as colleagues, acquaintances, and relatives, may impact an individual's choice to embrace novel technologies [34]. The facilitating circumstances are the person's view of the institutional and technical infrastructure that allows technology usage. The term encompasses accessible tools and assistance that enable anyone to utilize technology proficiently [35].

The UTAUT model considers the influence of moderating variables, such as age, gender, experience, and voluntariness, on the link between critical components and intent and technology use behavior [36]. Research shows these factors can strengthen or weaken the relationship between essential constructs and intent to use the technology. For example, Social Influence may be more assertive in younger or less experienced individuals with technology. UTAUT has been tested and validated in various contexts and fields, including education, business, health, and government. Research by [37] demonstrated that the UTAUT model is universally applicable and can effectively elucidate the technology adoption patterns in many cultural contexts. In addition, Hedonic Motivation, Price Value, and Habit have been included in UTAUT. These enhancements attempt to understand consumer technology uptake better. UTAUT offers a thorough framework for comprehending the aspects that affect the acceptance and use of technology.

Performance expectancy

Performance expectations are an essential part of the UTAUT model that shows how much people believe a particular technology will improve their work performance. Studies indicate that the level of performance expected from a technology is a significant factor in determining whether someone intends to utilize it. For example [38]. The study discovered that older individuals' intentions to use information and communication technology are most strongly influenced by their performance expectations. Multiple research has focused on the impact of performance expectation (PE) on citizens' use of e-government. Performance Expectancy is the measure of an individual's belief in the ability of a system to enhance their work performance. Within the realm of e-government, public engagement (PE) plays a crucial role in shaping individuals' acceptance and use of digital government services. Research indicates that physical education (PE) significantly benefits individuals' intents and actions when using e-government services. Individuals who believe that e-

government services would enhance their productivity and efficacy are more inclined to embrace and use them [39].

For example, research in Indonesia shows that PE is an essential factor influencing e-government adoption, in addition to factors such as effort expectancy and system quality [40]. Another study in Pakistan found that PE, In addition to effort anticipation and social influence, perceived usefulness had a favorable impact on users' propensity to use e-government services. However, concerns about information privacy also played an important role [41]. In Ghana, PE was also a significant predictor of intention to adopt an e-voting system, demonstrating PE's relevance in various e-government contexts [42]. The study in Malaysia also confirmed that PE is a strong predictor of the intention to continue using technology in the context of education, which can be applied to e-government services [43]. In the context of teaching, research by [44] Demonstrates that performance expectations are the only determinant that directly forecasts behavioral intents in using virtual simulators in dentistry education. These results highlight the significance of performance expectations in incentivizing the use of technology among medical students [45]. Other research by [46] Within the social recommendation system, it was discovered that social information, user profiles, and reading behavior had a favorable impact on performance expectations and the inclination to use the social recommendation system. This demonstrates the crucial role of performance expectations, which are necessary in education and digital and social services. Regarding the deployment of health technology, [47] found that performance expectations significantly influenced patients' intentions to use the emergency department wait time website. The study shows that patients who believe technology will improve their efficiency in getting treatment are more likely to adopt it.

Effort expectancy

How much a person thinks a technology is easy to use is called effort expectation. This reflects ease of use and suggests that technologies that are easier to use are more likely to be adopted. Research shows that business expectations are an essential factor in predicting technology adoption. [38] found that business expectations and enabling conditions are positive determinants of technology usage intentions, especially in the context of tablet adoption by different generations. Research by [48] shows that in the context of education, business expectations are a significant predictor of the adoption of online faculty development programs in higher education. These findings suggest that the perception of ease of use plays a vital role in academics' adoption of the technology. Research by [49] Also demonstrates that the anticipation of commercial outcomes significantly impacts the inclination of university students to use the virtual learning system. This indicates that the impression of the user-friendliness of educational technology may promote the acceptance and use of learning technology. Regarding health, studies by [47] suggest that effort expectancy greatly influences patients' intentions to use ED wait time websites. Research in the restaurant industry by [50] also reveals that business expectations drive restaurant self-service technology adoption. This highlights that perceived simplicity of use is crucial in many service scenarios.

In the context of Internet banking, research by [51] reveals that business expectations play a crucial role as a positive and substantial mediator between website design, customer service, and the intention of users to use online banking. The survey indicates that those who see online banking as user-friendly are more inclined to embrace this technology. In general, anticipating commercial outcomes is crucial in influencing the inclination to adopt technology. The significance of usability in promoting technology acceptance is evident across several domains, including education, healthcare, and digital services.

Social influence

Societal influence pertains to the degree to which people experience societal pressure to adopt or abstain from using specific technology. This implies that the endorsement and motivation provided by others, such as colleagues, acquaintances, and relatives, might impact an individual's choice to embrace a novel technology. Studies indicate that social influence is crucial in forecasting the likelihood of individuals using technology. [52] found that social influences significantly affect intentions to use technology in sports. In the context of education, research by [53] revealed that social influence strongly predicted the propensity of student instructors to use interactive whiteboards. The results indicate that the support and encouragement provided by colleagues and school officials significantly impact teachers' choices to incorporate new technology. Additional studies conducted by [49] Evidence demonstrate that social factors significantly impact university students' inclination to use virtual learning systems. How individuals perceive peer and instructor support may strongly influence their decision to embrace and use learning technology. Regarding health, studies conducted by [47] Evidence indicate that social influence

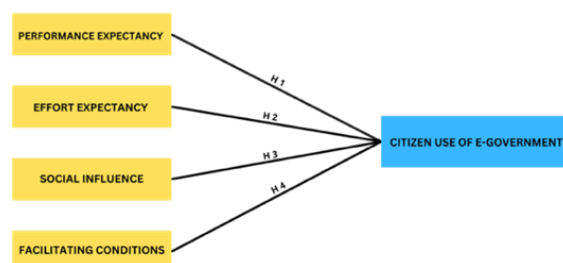
substantially impacts patients' inclination to use the emergency department wait time website. The research demonstrates that patients who get support and encouragement from their family and friends are more inclined to embrace this technology.

Research in the restaurant industry [50]. Additionally, it demonstrates that social influence is a primary determinant of the desire to embrace self-service technologies in restaurants. Social support from friends and family influences technology adoption. Regarding online banking, studies conducted by [51] Research find that social impact is essential in linking website design, customer service, and user intent to use online banking. People who receive social support are more likely to accept this technology. In the UTAUT paradigm, social influence significantly shapes the desire to utilize technology. This highlights the importance of social support and motivation in encouraging the use of technology in various fields, including education, healthcare, and digital services.

Facilitating conditions

Facilitating Conditions refer to how much individuals perceive organizational and technical infrastructure that allows technology usage. It encompasses accessible tools and assistance that enable persons to utilize technology proficiently. Studies indicate that allowing circumstances has a significant role in forecasting technology uptake. [54] Research has shown that enabling circumstances strongly influence individuals' likelihood of using technology, particularly when adopting tablets across various age groups. How much people utilize e-government services depends on social influence. Multiple studies show that social media and e-WOM increase awareness, trust, and transparency regarding digital government services. Social media enables governments to directly engage with individuals, enhance transparency, and foster public confidence [55]. Perceived social impact is crucial in determining the level of acceptability of digital government services. Research indicates that social trust and influence significantly impact individuals' inclination to use online government services. This demonstrates that the level of familiarity and extensive engagement with digital services has a significant effect on social influence [56]. Research done in Jordan revealed that people's happiness with e-government services heavily depends on their social influence and faith in these electronic services. Additionally, the study showed that social CRM notably influences the caliber of digital services and the residents' trust, subsequently impacting their happiness levels [57]. Social media helps government departments and people communicate. Social media in e-government may improve administrative processes and public involvement. This study emphasizes social media's role in public administration and government efficiency [58]. In the context of education, research by [48] shows that the conditions that facilitate it are significant predictors of the adoption of online faculty development programs in higher education. These data show that infrastructure and technical assistance drive academic technology adoption. Research by [49] also reveals that facilitation circumstances affect university students' inclination to utilize the virtual learning system. This suggests that technical assistance and infrastructure may promote the adoption of learning technology.

In the context of health, research by [47] showed that facilitating conditions played a significant role in patients' intentions to use the emergency department wait time website. The study shows that patients who feel that adequate technical infrastructure and support exist are more likely to adopt this technology. Research in the restaurant industry by [50] also shows that favorable conditions are one of the main factors influencing the intention to adopt self-service technology in restaurants. This highlights that adequate infrastructure and technical support drive technology adoption. In Internet banking, research by [51] Enabling conditions positively and significantly mediate the association between website design, customer service, and user desire to utilize online banking. The study demonstrates that people who perceive the presence of sufficient technological infrastructure and assistance are more inclined to embrace this technology. The enabling circumstances are crucial in the UTAUT paradigm since they directly impact the intention to employ the technology. This highlights the significance of infrastructure and technical assistance in promoting the use of technology in several domains, including education, healthcare, and digital services.



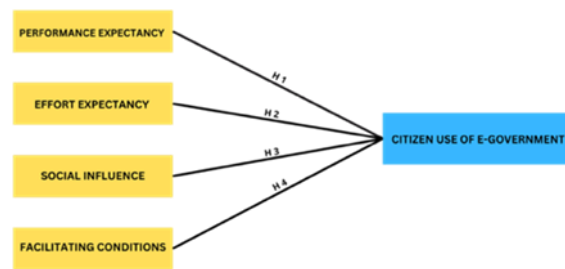


Figure 5. Research design

H1: Performance Expectancy Positively and Significantly Affects Citizen Use of E-Government.

H2: Effort Expectancy Positively and Significantly Affects Citizen Use of e-Government.

H3: Social Influence Positively and Significantly Affects Citizen Use of e-Government.

H4: Facilitating Conditions Positively and Significantly Affect Citizen Use of e-Government.

Four hypotheses are formulated using the Technology Acceptance Model (TAM) and the DeLone and McLean information system success models, which have shown efficacy in elucidating technology adoption behavior. This research seeks a more comprehensive understanding of the elements that promote or impede citizens' use of e-government services in Jambi City by conducting hypothesis testing. These results are anticipated to guide policymakers in formulating and executing efficient ways to enhance the acceptance of e-government services. For instance, if it is determined that effort expectation exerts a substantial impact, the government might prioritize enhancing the user interface to be more intuitive and training users to facilitate the use of the service.

METHODS

Research design

This research uses a quantitative approach with the Unified Theory of Acceptance and Use of Technology (UTAUT) model. Data was collected through a questionnaire distributed to 100 respondents selected using the Slovin formula. The questionnaire was created using Google Forms and distributed via WhatsApp to maximize the reach of respondents and the efficiency of the data collection process. The research process began with the formulation of the problem, which was then followed by the preparation of the theoretical basis. Once the theoretical basis is established, the next step is hypothesis testing. Research instruments were developed and tested in this stage to ensure validity and reliability.

Furthermore, the determination of the sample and population is carried out to collect relevant data. The data that has been collected is then analyzed using Structural Equation Modeling (SEM) with Partial Least Square (PLS) technique using SmartPLS-4 software. The data analysis process includes convergent and discriminant validity and reliability tests to assess the internal consistency of the research instruments. After the data analysis stage, the results of the relationship between the variables in the UTAUT model were interpreted to gain deeper insights. The final step is drawing conclusions based on the research results and preparing recommendations for increasing acceptance of Sikesal e-government services in Jambi.

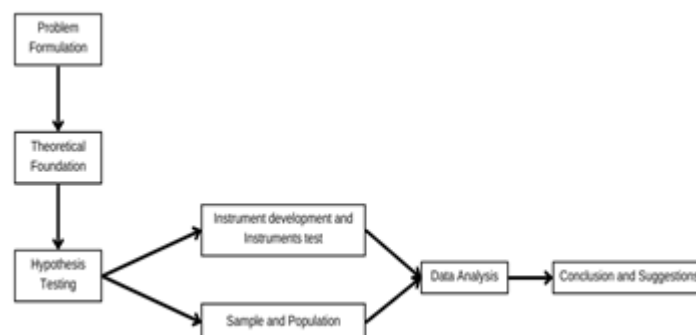


Figure 6. Stages of research

Population and sampling technique

The population in this study is all Jambi City people who have used or have access to e-government services, especially online community complaint services known as Sikesal. Jambi City, the capital of Jambi Province, has a diverse population with different cultural, educational, and economic backgrounds. This diversity provides a rich context for understanding how various segments of society receive and utilize e-government services such as Sikesal. This population includes many people, including the general public, government employees, business actors, students, and other groups interacting with Sikesal services. In this context, it is essential to identify and understand variations in the receipt and use of services among various demographic groups.

For example, the general public may have different needs and expectations than government employees or business actors. Thus, this study aims to capture these other groups' various perceptions and acceptance rates. To determine the number of research respondents from the total community who use the Online Community Complaint Service (Sikesal) application, as many as 5000 users, the researchers used a sample table of respondents by applying the Slovin formula. The Slovin formula calculates the sample size required in a study by considering the population and the allowable error rate. The formula is as follows:

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

n = Sample size

N = population size

e = the desired error rate (usually in decimal form).

Using the data from this study, where the total population (N) is 5000 users and the permissible error rate (e) is 10% (0.1), the calculation of the sample size (n) is as follows:

$$N = \frac{5000}{1+5000(0.1)^2}$$

$$N = \frac{5000}{1+5000 \times 0.1}$$

$$N = \frac{5000}{1+500}$$

$$N = \frac{5000}{51}$$

$$N = 98.04$$

Since the sample size cannot be a fraction, the value of n is rounded up to 100 respondents. Thus, this study involved 100 respondents from a total population of 5000 Sikesal application users. The selection of 100 respondents is based on the representative principle: the sample taken is expected to represent the population as a whole. Thus, the research results can be generalized to describe the public acceptance of using e-government services through the Sikesal application.

Data collection techniques

Data for this study was collected through a questionnaire distributed to 100 respondents using the Slovin formula for sample size determination. The questionnaires were distributed through Google Forms and WhatsApp to ensure broad reach and efficient data collection. This approach allowed us to collect relevant information about public acceptance of SIKESAL e-government services in Jambi. Using Google Form-based questionnaires, researchers can efficiently optimize the data collection process and reach respondents in less time. Dissemination via WhatsApp also allows researchers to reach respondents directly and facilitate their participation in the study.

This approach ensures that the data collected is representative and reliable in answering research questions and supports an in-depth analysis related to public acceptance of Sikesal e-government services in Jambi City. To better understand the characteristics of respondents who participated in this study, participant demographic information is essential to know the background of respondents who responded about using

e-government services, especially the Online Community Complaint Service (Sikesal) in Jambi City. This research involves various groups of people in terms of gender, age, and education level. By analyzing these demographic characteristics, we can get a clearer picture of the respondents' profiles and how demographic variations can influence respondents' views and experiences of the services under study. The following table describes the respondents' demographic characteristics in Table 1.

Respondent characteristic		
Gender	Frequency	Percentage (%)
Man	57	57.0%
Woman	43	43.0%
Age		
20-30 Years	24	26%
31-40 Years	23	24%
41-50 Years	24	26%
51-60 Years	23	24%
>60 Years	0	0
Education		
SD	27	27%
SMP	17	34%
SMA	24	23%
S1	23	17%
S2	9	9%

The majority of respondents in this study were male, with 57 people or 57% of the total respondents, while women totaled 43 people or 43%. This distribution shows a reasonably balanced representation between men and women. In terms of age, respondents were evenly spread across the four main age groups: 20-30 years old with 24 people (26%), 31-40 years old with 23 people (24%), 41-50 years old with 24 people (26%), and 51-60 years old with 23 people (24%). No respondents were over 60, indicating that this study focused on the younger to middle-aged population. The education level of the respondents also varied. Most respondents had primary education (SD), as many as 27 people (27 percent). Others had up to senior high school and undergraduate education, totaling 23 (23%) and 24 (24%) respectively. Respondents with junior high school education totaled 17 people (17%), and those with postgraduate education totaled nine people (9%). This variation in educational background provides an essential context for understanding their perceptions of e-government services. The explanation of these demographic statistics provides a clear picture of the characteristics of the respondents who participated in this study. By knowing the demographic background of the respondents, we can better understand how factors such as gender, age, and education can influence their views and experiences towards Sikesal services in Jambi City.

Research data instruments and measurements

Observation is a method in which researchers observe and record certain behaviors or events, and a list of questions is usually compiled in the form of a questionnaire or questionnaire [59]. In this study, the instrument used was a closed questionnaire. A closed questionnaire is a questionnaire that has been structured in a structured manner, where possible answers have been provided beforehand. This means that respondents can write answers freely but choose one of the available answers. This method has several advantages, including making it easier to process data because the answers are uniform and reducing bias because respondents do not need to formulate their answers. The closed questionnaire is carefully crafted to ensure that all answer options cover various possibilities relevant to the research question.

The data measurement scale is a reference used to determine the interval length in the measurement unit [60]. In this study, the Likert scale was used for data measurement. The Likert Scale is one of the psychometric scales often used in research, especially in quantitative methods, and is also widely encountered in several studies and surveys [61]. The Likert Scale measures respondents' approval level or disagreement with a particular statement, usually in the form of five or seven levels ranging from "strongly disagree" to "strongly agree." The Likert Scale was chosen because it can provide more in-depth information about respondents' attitudes, opinions, or perceptions towards various aspects of e-government services studied. In addition, this scale makes it easier for researchers to categorize and analyze data quantitatively because each scale level has a numerical value that can be calculated and processed statistically. In this study, the Likert scale was used for data measurement.

Tabel. 2 Skala likert

Value	Information
1	Strongly disagree
2	Disagree
3	Netral
4	Seven
5	Strongly agree

Data analysis

Data analysis is a process that involves coordinating and compiling data in the form of patterns, categories, and basic descriptive units obtained through interviews, field notes, and documentation. This process aims to identify themes and formulate hypotheses using the data needed [64]. For this work, the data analysis approach used is Structural Equation Modeling (SEM) using Partial Least Square (PLS) technique with the aid of SmartPLS-4 software. SEM-PLS-4 is a widely used and efficient method for assessing intricate and interconnected data using structural equation modeling. SEM-PLS is a variance-based methodology that applies to investigations with limited sample sizes and data that deviate from the assumptions of a multivariate normal distribution. SEM-PLS uses a two-step approach: first, model measurements that evaluate the validity and reliability of the construct; Second, a structural model that tests the relationship between constructs. In this data analysis, some crucial stages that will be carried out include.



Figure 7. Data analysis flow

Validity test: This ensures the research instrument accurately measures the variable. SEM-PLS uses convergent and discriminative validity. An Average Variance Extracted (AVE) value higher than 0.50 indicates convergent validity, whereas discriminative validity separates concepts.

Reliability Test: The purpose of the reliability test is to assess the degree of internal consistency of the research instrument. Composite reliability and Cronbach's Alpha are used in SEM-PLS to evaluate the dependability. An acceptable level of composite reliability is often defined as above 0.70, and a reasonable value for Cronbach's Alpha is likewise assumed to be above 0.70. This test verifies the consistency of measurement findings when repeated under identical circumstances.

R-Square Test: The R-Square Test assesses the strength of the structural model by examining the extent to which the independent variables account for the variability in the dependent variable. The R-squared number is the proportion of variability in the dependent variable that can be accounted for by the independent variable. A high R-squared value shows that the model effectively explains and captures the relationship between the variables.

Hypothesis Test: this test aims to validate the hypothesis put forward in the study. The hypothesis test examined the t-statistics and p-value values obtained from bootstrapping in SEM-PLS. A hypothesis is deemed significant if the p-value is below 0.05 or the t-statistics value is above 1.96. Hypothesis testing is a method used to ascertain the presence of a hypothesized link between variables in a model.

Using the SEM-PLS methodology, researchers can comprehensively analyze the data to identify relationships between variables, test theoretical models, and ensure that the results of the study can be generalized to a broader population. This analysis allows researchers to find patterns and relationships that may not be visible with traditional analysis methods, thus providing deeper insights into the phenomenon being studied. To make it easier to understand how the method in this study is carried out, here is an illustration of a picture that illustrates the steps of the research in a simple way. This image shows the research flow starting from problem formulation, theoretical foundation, instrument development and testing, hypothesis testing, data analysis, to drawing conclusions and giving suggestions.

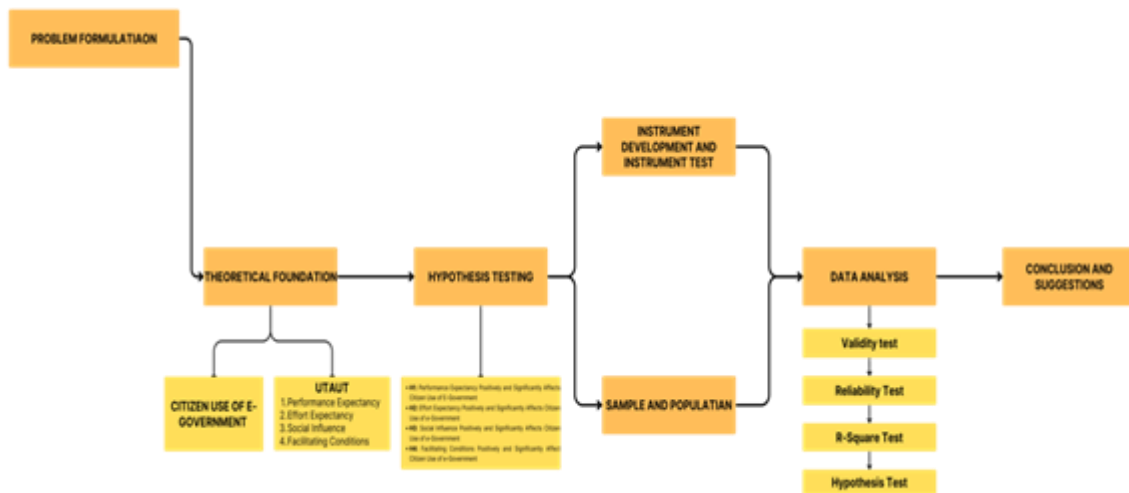


Figure 8. Research flow

Using the SEM-PLS methodology, researchers can comprehensively analyze the data to identify relationships between variables, test theoretical models, and ensure that the study results can be generalized to a broader population. This analysis allows researchers to find patterns and relationships that may not be visible with traditional analysis methods, thus providing deeper insights into the phenomenon being studied. To make it easier to understand how the technique in this study is carried out, here is an illustration of a picture that illustrates the research steps. This image shows the research flow from problem formulation, theoretical foundation, instrument development and testing, hypothesis testing, and data analysis to drawing conclusions and giving suggestions.

RESULTS AND DISCUSSIONS

Result

This section presents the results of the analysis of data collected through questionnaires. The study was conducted using Structural Equation Modeling (SEM) with Partial Least Square (PLS) technique using SmartPLS-4 software. The results of this analysis include hypothesis testing and interpretation of the relationship between the variables in the UTAUT model used in this study. The following are the results of the analysis, which includes research validation based on the UTAUT model:

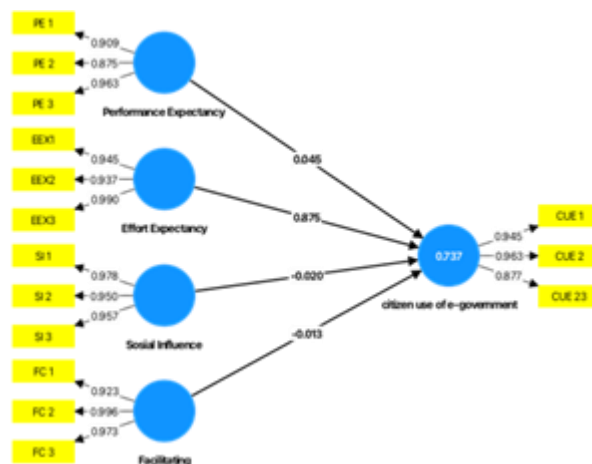


Figure 9. Research validation

This data shows the values related to citizen use of e-government. Several variables are measured: Effort Expectancy, Facilitating, Performance Expectancy, and Social Influence.

The Effort Expectancy variable has three sub-variables: EEX1, EEX2, and EEX3, with values of 0.945, 0.937, and 0.999, respectively. These sub-variables have values above the validity standard of 0.700, indicating that they are valid and reliable in measuring Effort Expectancy.

The Facilitating variable is measured by three sub-variables: FC1, FC2, and FC3. The values for these sub-variables are 0.923, 0.996, and 0.973. These sub-variables also have values above the validity standard of 0.700, indicating they are valid in measuring facilitating.

The Performance Expectancy variable was measured by three sub-variables: PE1, PE2, and PE3. The values for these sub-variables are 0.909, 0.875, and 0.963. These sub-variables have values above the validity standard of 0.700, indicating they are valid in measuring Performance Expectancy.

The Social Influence variable is measured by three sub-variables: SI1, SI2, and SI3. The values for these sub-variables are 0.978, 0.950, and 0.957. All of these sub-variables have values above the validity standard of 0.700, which indicates that they are valid in measuring Social Influence.

Based on the data provided, this study has successfully measured citizens' use of e-government with high validity. This indicates that the research instruments have been well-designed and can produce reliable data. The Effort Expectation variable, measured through the EEX1, EEX2, and EEX3 sub-variables, showed values above the validity standard of 0.700. This indicates that respondents feel the effort they expect to adopt this technology is relatively high. In other words, they need to make a significant effort to be able to use this technology effectively. The Facilitating variable, measured through the FC1, FC2, and FC3 sub-variables, also shows values above the 0.700 validity standard. This indicates that respondents feel that many factors facilitate or support them in adopting this technology. These factors include technical support, resource availability, or a supportive work environment. The Performance Expectancy variable, measured through the PE1, PE2, and PE3 sub-variables, showed values above the 0.700 validity standard. This indicates that respondents have high-performance expectations for this technology. This technology will help them improve their performance in performing their tasks. The Social Influence variable, measured through the SI1, SI2, and SI3 sub-variables, showed values above the validity standard 0.700. This suggests that respondents feel a strong social influence in their decision to adopt this technology. They think the people around them support using this technology, influencing their choices. After understanding the structural model for studying the relationship between numerous factors affecting e-government service acceptance and usage, the next step is to verify the research's measuring instruments. The instrument's reliability was tested using Cronbach's alpha, Composite Reliability (ρ_a and ρ_c), and Average Variance Extracted. The table below displays the reliability measures for each latent variable in this study model:

Table 3. Reliability results

	Cronbach's alpha	Composite reliability (ρ_a)	Composite reliability (ρ_c)	Average variance extracted (AVE)
Effort Expectancy	0,955	0,962	0,971	0,917
Facilitating	0,963	0,992	0,975	0,930
Performance Expectancy	0,904	0,915	0,940	0,839
Sosial Influence	0,959	0,966	0,973	0,924
citizen use of e-government	0,921	0,942	0,950	0,863

This research examined construct reliability and validity using Average Variance Extracted (AVE), Composite Reliability (ρ_a and ρ_c), and Cronbach's alpha. The results show that all constructs meet reliability standards above 0.700, meaning the instruments used are reliable. The Effort Expectancy construct has a Cronbach's alpha of 0.955 and an AVE of 0.917, indicating excellent reliability and validity. The Facilitation condition was also very reliable, with a Cronbach's alpha of 0.963 and an AVE of 0.930. Performance Expectancy has a Cronbach's alpha of 0.904 and an AVE of 0.839, while Social Influence has a Cronbach's alpha of 0.959 and an AVE of 0.924. Citizen Use of E-Government shows high reliability with Cronbach's alpha 0.921 and AVE 0.863. These values indicate that each construct is reliable and significantly explains the measured variance, indicating strong convergent validity. This research shows that the assessment tool is valid and reliable for assessing public acceptance of e-government services. The next stage is to evaluate the structural model's ability to explain public e-government service utilization using a trustworthy instrument. The R-square value indicates how well the model describes the dependent variable. The table below shows the R-squared and modified R-squared values for citizen e-government usage variables:

Table 4. R-square

	R-square	R-square adjusted
citizen use of e-government	0,737	0,726

For the variable "Citizen Use of E-Government," the R-Square and R-Square Adjusted values are shown in the following table. An R-Square score of 0.737 suggests that the model's independent factors can account for 73.7% of the variance in how the public uses e-government. Furthermore, even with the number of variables included, the R-Square Adjusted score of 0.726 indicates that the model can still explain around 72.6% of the variance. The high values of R-Square and R-Square Adjusted suggest that the model is very predictive in defining the elements influencing the general public's usage of e-government services. The results show that the predictor variables looked at in the research and the variable "Citizen Use of E-Government" have a strong association. As such, it is possible to consider this model reliable for comprehending and predicting how people would utilize e-government services. The hypothesis is assessed using the R-square value to evaluate how well the structural model describes citizens' e-government service use. This study assessed how independent factors, including effort expectancy, facilitating conditions, performance expectancy, and social influence, affect citizens' use of e-government. The table shows hypothesis testing findings, including original sample size (O), sample mean (M), standard deviation (STDEV), T statistics ($|O/STDEV|$), and p-values. These p-values decide whether to accept or reject hypotheses.

Table 5. Hypothesis test

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ($ O/STDEV $)	P values	
Performance Expectancy -> citizen use of e-government	0,045	0,035	0,065	0,692	0,489	rejected
Effort Expectancy -> citizen use of e-government	0,875	0,871	0,048	18,339	0,000	accepted
Social Influence -> citizen use of e-government	-0,020	-0,010	0,051	0,387	0,699	rejected
Facilitating -> citizen use of e-government	-0,013	-0,007	0,053	0,235	0,814	rejected

This study examines how age, education, and internet access affect e-government service use. The study shows that "Effort Expectancy" significantly affects e-government adoption ($T = 18.339$, $P = 0.000$). This demonstrates how much of an influence e-government service users' decision to utilize the service has on how easy they believe it to use. Users using this technology are prone to perceive electronic government services as easily navigable and accessible. Electronic government implementation was little impacted by the variable "Facilitating Conditions," on the other hand. This research indicates, with a T value of 0.235 and a P value of 0.814, that the availability of sufficient infrastructure and assistance does not influence the choice to utilize e-government services. Things like limited technological access and insufficient technical assistance could not improve the adoption of these services as much.

Moreover, the adoption of e-government was not much impacted by the variable "Performance Expectancy." The findings, which show a T value of 0.692 and a P value of 0.489, imply that the anticipated advantages or the advantages have no substantial impact on the decision to embrace e-government. These services may only improve individual performance a little. Similarly, the variable "Social Influence" did not significantly impact the use of e-government, with a T value of 0.387 and a P value of 0.699. This shows that the decision to use e-government is influenced more by personal considerations than social pressure. The study emphasizes the importance of ease of use to drive e-government adoption, while other factors such as support, performance expectations, and social influence have a minor impact. These findings can help the government focus on improving the ease of use of e-government services.

Discussion

Information and communication technologies are becoming crucial to many aspects of modern life, including their use in government administration. E-Government, often known as electronic government, is a strategy to enhance governmental services' effectiveness, clarity, and promptness. Nevertheless, the public's acceptance and use of e-government technology remains a significant challenge when implementing new services. This research examines the variables influencing public support for e-

government services, specifically focusing on the Sikesal services in Jambi City. Sikesal is a forum created by the Jambi City Council to facilitate the resolution of citizen complaints on different government services. This study seeks to improve understanding of how people in a given local context embrace and use electronic government services using a comprehensive analytical approach. According to the first hypothesis, Performance Expectancy does not affect citizens' e-government usage. $O=0.045$, $M=0.035$, $STDEV=0.065$, $T\text{-statistics}=0.692$, and $P\text{-value}=0.489$ indicate no significant statistical association. Technology performance expectation in the UTAUT model reveals how much individuals think it will enhance their jobs. For example [40], performance expectations are essential to a person's intention to use technology.

Within the realm of electronic government, several studies indicate that public engagement (PE) has a significant and favorable influence on individuals' inclination and actions toward using digital government services. Research conducted in Indonesia has shown that the political economy (PE) plays a significant role in determining the acceptance of electronic government, among other characteristics such as effort expectation and system quality [40]. Studies in Pakistan and Ghana also found that PE is a significant predictor of adopting e-government services and e-voting systems [41]. The findings of this study, titled "Understanding Public Acceptance of the Use of E-Government Services: A Study of Online Community Complaint Services (Sikesal) Jambi City," indicate that Performance Expectancy does not exert a significant impact on citizens' utilization of e-government. Several environmental circumstances influence the impression of e-government services in Jambi City. While PE is often a reliable indicator in many situations, this research suggests that other variables, such as effort expectation, may significantly influence the uptake of e-government offerings. This study demonstrates that although scholars widely acknowledge the Performance Expectancy theory as a crucial aspect in the acceptance of technology, the findings from this study's hypothesis do not provide evidence for the substantial impact of Performance Expectancy on the utilization of electronic government by residents in Jambi City. The primary factor is that individuals may need to prioritize their view of performance advantages while using online community complaint services (Sikesal). Thus, these findings emphasize the significance of comprehending the particular environment and local variables that impact technology adoption in society.

Nevertheless, the outcomes of the second, third, and fourth hypotheses exhibit less significant results, which may be seen via several sources, including the findings of the second hypothesis. The Original Sample (O) value of 0.875, Sample Mean (M) of 0.871, Standard Deviation (STDEV) of 0.048, and T-statistics of 18.339 reveal that Effort Expectancy strongly influences citizens' electronic government use. The P-value of 0.000 shows that effort expectation strongly influences electronic government adoption. The Effort Expectancy Theory pertains to the degree to which users perceive that using certain technologies will require little effort. This idea encompasses the concept of perceived usability and posits that technologies that are easier for users to navigate are more likely to be embraced. Studies have shown that corporate expectations are crucial in forecasting technology uptake. For example, [38] Found that business expectations and enabling conditions are positive determinants of technology usage intentions, especially in tablet adoption by different generations. In addition, in education, [48] shows that business expectations significantly predict adopting online faculty development programs in higher education. These findings suggest that the perception of ease of use plays a vital role in academics' adoption of the technology.

Additionally, it demonstrates that the expectations of businesses significantly impact the intention of university students to use virtual learning systems. This highlights that the perceived ease of using educational technology may catalyze the adoption of learning technology. This analysis demonstrates that the effort expectancy theory provides evidence to support the hypothesis that the level of effort expected by individuals has a substantial impact on their utilization of e-government services. The main reason is that the perception of ease of use of technology has consistently been shown to drive the adoption of technology in various contexts, which is in line with the findings of multiple studies that have been mentioned. Therefore, the results of this hypothesis are based on existing theories and emphasize the importance of Effort Expectancy in predicting technology adoption, including e-government.

Results of the third hypothesis about Hypothesis findings imply Facilitating Conditions have no meaningful influence on people's electronic government use. The Original Sample (O) value is -0.013, the Sample Mean (M) is -0.007, the Standard Deviation (STDEV) is 0.053, and the T-statistics is 0.235. Facilitating Conditions have no statistically significant effect on e-government adoption ($P=0.814$). The Facilitating Conditions theory describes how individuals perceive organizational and technical infrastructure that

allows technology usage. This bundle includes tools and support to help people use technology effectively. Studies indicate that the presence of enabling circumstances has a crucial role in forecasting the uptake of technology. It also shows that business expectations are one of the main factors influencing the intention to adopt self-service technology in restaurants, highlighting the importance of the perception of ease of use in various service contexts. In addition, in Internet banking, this investigation demonstrates that the Effort Expectancy theory corroborates that Effort Expectancy substantially impacts citizens' use of e-government. The primary factor is that the impression of technology's usability has continuously been shown to influence the acceptance and implementation of technology in different situations, aligning with the conclusions of other stated research. Thus, the findings of this hypothesis align with established theories and underscore the significance of Effort Expectancy in forecasting the adoption of technology, particularly e-government. For example, [54] found that enabling conditions are a positive determinant of intent to use technology, especially in the context of tablet adoption by different generations.

In addition, research by [48] shows that the conditions that facilitate are significant predictors of adopting online faculty development programs in higher education. These findings show that infrastructure and technical support are essential in academics' technology adoption. Research by [50] also indicates that enabling conditions play a crucial role in influencing the intention of university students to use virtual learning systems, emphasizing that adequate technical support and infrastructure can drive the adoption of learning technologies. Furthermore, in the context of health, research by [47] found that the facilitating condition played a significant role in the patient's intention to use the emergency department waiting time website. However, within the framework of this research titled "Understanding Public Acceptance of the Use of E-Government Services: A Research of Online Community Complaint Services (Sikesal) in Jambi City," the findings of the hypothesis indicate that Facilitating Conditions do not have a substantial impact. This analysis demonstrates that while the theory of Facilitating Conditions is widely acknowledged in the literature as a crucial factor in technology adoption, the hypothetical findings in this study do not provide evidence for the substantial impact of Facilitating Conditions on the utilization of e-government by citizens in Jambi City. The primary factor in this context is that other variables, such as social influence, may significantly impact the uptake of e-government services. Thus, these findings emphasize the need to comprehend the circumstances and regional variables that impact technology adoption in society.

Furthermore, the results of the hypothetical research suggest that Social Influence does not have a statistically significant effect on the extent to which people use e-government. The Original Sample (O) value is -0.020, the Sample Mean (M) is -0.010, the Standard Deviation (STDEV) is 0.051, and the T-statistics is 0.387, which supports this statement. The P-value of 0.699 suggests that there is no statistically significant relationship between Social effect and the use of e-government by individuals. Social Influence Theory pertains to the degree to which people experience social coercion to adopt or abstain from using specific technology. This implies that the endorsement and motivation provided by others, such as colleagues, acquaintances, and relatives, might impact an individual's choice to embrace a novel technology. Research shows that social influence is a significant factor in predicting intent to use technology. For example, [52] found that social influences substantially affect intentions to use technology in sports. In addition, in the context of education. Other research by [49] shows that social influences influence university students' intention to use the virtual learning system.

Still, the research results, "Understanding Public Acceptance of the Use of E-Government Services: A Study of Online Community Complaint Services (Sikesal) Jambi City," show that social influence has little effect on how much people use e-government. Many environmental conditions may affect how Jambi City's e-government services are perceived. Although Social Influence is a good indication in many circumstances, this study implies that other factors, including Effort Expectancy, could be more critical in determining how much e-government services are adopted. This study shows that although the theory of social influence is well recognized in the literature as a vital component in adopting technology, the results of this research hypothesis do not support the significant impact of social influence on the use of e-government by Jambi City citizens. The main contributing reason is that while utilizing online community complaint services, people needed help to prioritize social support (Sikesal). These results thus stress the need to understand the specific background and local factors that affect how technology is adopted in society.

CONCLUSION

This study aims to analyze the factors that influence public acceptance of Sikesal e-government services in Jambi City using the Unified Theory of Acceptance and Use of Technology (UTAUT) model. Based on the results of data analysis using Structural Equation Modeling (SEM) with Partial Least Square (PLS) technique, it can be concluded that this research has successfully achieved the stated objectives. The main conclusion of this study is that Effort Expectancy significantly influences the acceptance of Sikesal e-government services. This shows that ease of use of services is a critical factor in increasing public acceptance of e-government services. Although the Performance Expectancy, Social Influence, and Facilitating Conditions variables did not show a significant effect, it is essential to consider these aspects in future service improvement efforts.

Overall, this study successfully achieved its objective of identifying factors that influence public acceptance of Sikesal's e-government services. The findings provide valuable insights for the Jambi City government in developing and implementing e-government services that are more effective and easy for the community. This research also underscores the importance of simplifying the user interface and providing clear guidelines to improve service usability. In addition, socialization and education programs regarding the benefits and how to use Sikesal services must be enhanced to support performance expectations and social influence. Thus, this research makes a meaningful contribution to the field of e-government and offers practical recommendations to improve the acceptance of e-government services in Jambi City. However, this study also has limitations that need to be considered, such as the uneven demographic distribution of respondents and the possibility of respondent bias. Further studies with larger samples and different analytical approaches are recommended for a more comprehensive understanding.

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