Jurnal Administrasi Negara
Volume 31 No. 2, Edition Agustus 2025
p-ISSN: 1410-8399, e-ISSN: 2615-3424

THE INFLUENCE OF DIGITAL LITERACY AND DIFFUSION OF INNOVATION ON THE ADOPTION OF DIGITAL SERVICES AT THE REMBANG REGENCY PUBLIC SERVICE MALL

Zeldha Fitri Ayu Hartiyanti[1*] and Ray Septianis Kartika[2]

[1*] Universitas Brawijaya
email: zeldhahartiyanti@gmail.com

[2] National Research and Innovation Agency (BRIN)
email: raseka1979@gmail.com

Article History
Submited: 23 May 2025
Review: 23 June 2025
Publish: 24 September 2025

Keywords:
Public Service; Digital Literacy; Unified Theory of Acceptance and Use of Technology (UTAUT); Diffusion of Innovation; Public Service Mall.

ABSTRACT

Public services in Indonesia still face challenges, including lengthy, complex, and inefficient bureaucracy. To address this, the government initiated the Public Service Mall (Mall Pelayanan Publik/MPP) as an integrated solution to improve efficiency and ease of access to services for the public. However, the implementation of MPPs in various regions, including Rembang Regency, still faces obstacles, especially in optimizing digital services. Examples include the absence of an online queuing system, incorrect operating hours on social media platforms, and a lack of website maintenance, all of which should be making services easier. This study aims to analyze the level of public adoption of digital public services at the Rembang Regency MPP. This research uses quantitative approach with the Unified Theory of Acceptance and Use of Technology (UTAUT), adding the variables of digital literacy and diffusion of innovation, which can predict the intention and use of information systems and help understand the factors that influence technology adoption. The results of this study show that digital literacy and diffusion of innovation together have a positive and significant effect on the public's acceptance of digitalization. These findings indicate that increasing digital literacy and accelerating the adoption of innovation are strategic factors in strengthening the success of digital public services. Therefore, the local government needs to strengthen the digital ecosystem, provide technical training, and promote innovation to continuously improve the effectiveness of the MPP.

INTRODUCTION

Efficient, transparent, and easily accessible public services are a prerequisite for good governance. In Indonesia, the public is often faced with the challenge of lengthy and convoluted bureaucracy, a serious problem for public services. The Public Service Mall (*Mall Pelayanan Publik*/MPP) is a strategic innovation to integrate various types of public services from different agencies in a single physical location. This is supported by Minister of Administrative and Bureaucratic Reform Regulation No. 92 of 2021 on Technical Guidelines for the Implementation of Public Service Malls, which states that MPPs are an effort to integrate services that ultimately lead to efficiency in time, cost, and ease of obtaining service products, whether administrative, goods, or

* Correspondence Author
Email: zeldhahartiyanti@gmail.com

services. According to data from the Ministry of State Apparatus Empowerment and Bureaucratic Reform (2024), 272 Public Service Malls have been established across Indonesia since 2017 until December 2024, reflecting the government's commitment to improving the quality of public services.

Nevertheless, the implementation of MPPs in various regions has not always been smooth and is often faced with various challenges on the ground. In the case of the MPP in Sidoarjo, there were technical problems with the online queuing application, such as errors, slow servers, and navigation difficulties. Many citizens still use the manual system due to the limited features of the application and restricted registration schedules (Sari et al., 2020). This indicates that poor user interface/experience (UI/UX) can significantly hinder technology adoption. In Rembang Regency, the main obstacles include the public's low understanding of procedures, limited human resources, and difficult geographical access for citizens living far from the city center (Reza Mahendra & Adnan, 2025). Meanwhile, in North Hulu Sungai Regency, the problems include a lack of available service information, slow service due to unstable internet networks, and a shortage of supporting facilities (Hafiz et al., 2025). In Badung Regency, although the one-stop service concept is in place, improving service quality remains a challenge, especially in terms of efficient and responsive service management (Rimbawan et al., 2025). In the Bogor City MPP, the main problem lies in the suboptimal interpersonal communication (Puspitasari, 2020). These various issues indicate that the success of an MPP does not only depend on its physical availability but also on the optimization of processes, resources, and, especially, adaptation to digital technology and its acceptance by the public.

Digitalization is an important pillar in creating modern and adaptive public services. It is an integral part of the e-government concept. The application of e-government is also essential in the implementation of MPPs in various regions in Indonesia for effective and efficient public services. For example, the application of MPP technology in Palopo City has been proven to have a positive influence and plays an important role in public satisfaction (Juita et al., 2023). This is reinforced by the research of Atisyah et al. (2025), whose findings reveal that the use of digital technology at the Pekanbaru City MPP can speed up work processes and queues and increase the public's satisfaction with the services provided. However, some challenges, in the form of technical constraints and a lack of digital literacy, still need to be addressed. This confirms that the integration of digital technology into public services is a necessity, but its success highly depends on the acceptance and adoption by the public.

In accordance with Rembang Regency Regent Regulation (Perbup) No. 38 of 2022 on the Implementation of Public Service Malls, a Public Service Mall is also operated in Rembang Regency, Central Java, which houses more than 19 agencies and serves more than 110 services (Rembang

Regency Public Service Mall). Based on the Rembang Regency Government's Community Satisfaction Survey (SKM) report for 2019-2022, the quality of public services is still in the "B" (Good) category with an average percentage of 82.491%. While it is exceeding the 80% target set in the 2016-2021 RPJMD, it indicates that the level of community satisfaction has not reached the maximum category. According to Fauzi & Witjaksono (2024) the digitalization of public services at the DPMPTSP (Department of Investment and One-Stop Integrated Services) in Rembang Regency has been effective, allowing the public to access services and interact through applications or WhatsApp for complaints and permit confirmations, thereby increasing efficiency. However, there are still complaints regarding the long time it takes to resolve some issues. Generally, the duration for handling problems or complaints from the public is between one and two weeks. Nevertheless, some reports require a longer resolution time. To overcome this, it is recommended to have an SOP for handling complaints, strengthen the digital literacy of civil servants, and implement local government regulations that support the implementation of an electronic-based government system.

Although progress has been made, digitalization at the Rembang Regency MPP still has a number of fundamental problems. This is supported by the research results of Novetu & Rahman (2025), which explain that the quality of services at the Rembang Regency MPP has not fully met the public's expectations. One of the main problems faced by the Rembang Regency MPP is the suboptimal speed and ease of service access, especially through online media. In fact, the Rembang Regency MPP has not yet implemented an online queuing system. The absence of this system leads to increased waiting times and conventional queue congestion. The main inhibiting factor in the procurement of this online queuing system is budget limitations. In addition, inconsistent information on operating hours across various digital platforms, such as Google and the official MPP social media, can cause misinformation, confusion, and inconvenience for the public who want to access services. It can also lead to a decrease in public trust in the professionalism of service delivery. Furthermore, the Rembang Regency MPP website is not updated or informative, as it presents statistical data in irrelevant diagrams. This lack of clarity implies low utilization of information by the public and hinders the function of public transparency. These phenomena are supported by the results of an evaluation conducted by the Ministry of State Apparatus Empowerment and Bureaucratic Reform regarding SPBE (Electronic-Based Government System) in 2021, where the Rembang Regency SPBE index was still low at 3.64 on a scale, compared to 15 other regencies/cities that have Smart City programs in Central Java Province. With the identification of technical problems found in previous research, this study attempts to look at the issue from the perspective of the public as service users. This condition creates an important research gap to be filled, because the success of public

service digitalization ultimately depends heavily on the extent to which the public is willing and able to accept and adopt the technology provided.

The novelty of this research lies in its effort to fill this gap by integrating the Unified Theory of Acceptance and Use of Technology (UTAUT) approach with the theories of diffusion of innovation and digital literacy. The UTAUT model is used to analyze the extent to which factors of performance expectancy, effort expectancy, social influence, and facilitating conditions influence the public's acceptance of digital services. The theory of diffusion of innovation adds a perspective on how innovations spread and are accepted in society, while digital literacy explains the extent of the public's ability to access, understand, and use digital services. By combining these three theoretical frameworks, this research not only assesses the technical aspects of the services but also considers the social-psychological factors that influence the public's adoption of technology.

This research aims to analyze the level of public acceptance of the digitalization of public services at the Rembang Regency MPP. This ultimately leads to the effectiveness of the implementation of e-government at the Rembang Regency Public Service Mall. The successful implementation of any new technology, including the digitalization of services at the MPP, is highly dependent on the level of acceptance and adoption by end-users. If the public is reluctant or has difficulty using the provided digital platforms, the investment in that technology will not yield optimal results.

LITERATURE REVIEW

This study uses diffusion of innovation and digital literacy theories as its main theoretical foundation to understand the extent to which the public accepts the digitalization of public services. These two concepts were chosen because they complement each other in explaining the process of technology adoption, especially in the context of public services that are now moving towards digital systems.

Digital Public Services

Digital public services are a form of service transformation that shifts manual processes to information technology-based systems to increase efficiency, transparency, and accessibility for the public. According to Yunaningsih et al. (2021), digital public services are characterized by the implementation of a paperless system, which allows administrative processes to be carried out faster, more efficiently, and more easily accessed through digital devices. In other words, the digitalization of public services is not just about moving documents into an electronic format, but also about creating a simpler and more integrated system.

Digital public services also play a crucial role in strengthening the principles of good governance, particularly accountability, transparency, and responsiveness. Natika (2024) states that digital transformation in the public sector can create more inclusive and participatory services and increase public trust in the government. This transformation not only impacts the effectiveness of services but also speeds up decision-making and the management of public data.

Furthermore, digital public services are closely related to the implementation of the Electronic-Based Government System (SPBE), which is the national policy framework for realizing an effective, transparent, and accountable government. As explained by Hutabarat et al. (2025), the digitalization of public services is seen as a key strategy to reduce the potential for budget deviations, improve bureaucratic efficiency, and strengthen the transparency of government administration. However, this transformation is not merely technical, but also requires the readiness of human resources and organizational culture. A report from the Ministry of Home Affairs, Directorate General of Regional Administration (2022), emphasizes that the digitalization of public services requires institutional changes, capacity building for civil servants, and an adaptation of bureaucratic work culture to meet the demands of a digital society. Thus, the success of digital public services is measured not only by the availability of applications or infrastructure but also by the extent to which the public can accept, understand, and use these services.

From the public's perspective, digital public services offer a number of tangible benefits. According to research by Yunaningsih et al. (2021), digitalization improves the quality of public services through ease of access, time efficiency, and a reduction in complex bureaucratic practices. Meanwhile, Natika (2024) adds that digital public services also promote transparency and increase citizen participation in the service process. This shows that digital public services are an important instrument for supporting bureaucratic modernization while also increasing public satisfaction and trust.

Diffusion of Innovation

Diffusion of innovation is the process by which an innovation is communicated through certain channels over time among the members of a social system. The diffusion of innovation theory, put forward by Rogers (1995) provides a systematic framework for examining how innovations spread through a society and the factors that influence an individual's or group's decision to adopt or reject them.

Rogers (1995), identifies five steps in the innovation adoption process: knowledge, persuasion, decision, implementation, and confirmation. At the knowledge stage, individuals become aware of an innovation's existence, in this case, the digitalization of public services offered through the Public Service Mall (MPP). The persuasion stage involves the formation of an individual's attitude toward

the innovation, whether it is considered beneficial or not. The decision stage is the moment when an individual decides to accept or reject the innovation. After that, the implementation stage occurs when the innovation begins to be used in practice. The final stage, confirmation, is the process of re-evaluating the adoption decision that has been made, which can either strengthen or reverse that decision. The factors that influence this decision include relative advantage (whether the innovation is considered better than previous solutions), compatibility (the degree of fit with the user's values and needs), complexity (the degree of difficulty in understanding and using the innovation), trialability (the opportunity to try the innovation before fully adopting it), and observability (whether the results of using the innovation can be observed by others) (Rogers, 1995).

In the context of the digitalization of public services at the Rembang Regency MPP, these five characteristics are highly relevant for assessing the public's perception of the ease, benefits, and effectiveness of digital services. This is proven by previous research conducted by Akhyar (2025) that the success of technology adoption is not only determined by the potential of the innovation to improve service efficiency but is also influenced by various challenges such as the innovation's compatibility with the values held by the community, limitations of digital infrastructure, and resistance to change.

Digital Literacy

In the digitalization of public services, the diffusion of innovation process does not stand alone; the public's level of digital literacy also significantly influences the public's acceptance of digitalization. Without basic skills in using digital technology, the public will not be able to accept or utilize digitized public services. A citizen may be aware of the existence of an online MPP service, but without adequate digital literacy, they could have difficulty accessing, understanding, or completing the service process on their own.

Digital literacy includes a person's ability to access, understand, evaluate, and use information (Naufal, 2021). This not only includes technical skills in using electronic devices or online platforms but also encompasses critical thinking skills, the ability to assess the validity of information, and an understanding of cyber ethics and security. This opinion is in line with the theory put forward by Bawden (2001), who emphasizes that with the advent of the internet and other digital technologies, literacy is no longer limited to operating a computer or merely finding and evaluating information. With the presence of the internet and digital technology, literacy now includes cognitive and social aspects, such as collaborating in digital networks, filtering valid information, and the ability to create and participate in digital content.

According to KOMINFO (2023), the development of the digital literacy curriculum is supported by four main pillars: digital skills, digital ethics, digital safety, and digital culture. Digital

skills are related to technical abilities such as using service applications, filling out online forms, and navigating digital interfaces. Digital ethics includes understanding the rights and obligations of internet users, such as politeness when filling out forms or giving service reviews. Digital safety involves awareness of the risks of using the internet, such as online fraud, identity theft, and the protection of personal data. Meanwhile, digital culture refers to the social habits and values that arise as a result of the widespread use of digital technology, such as trust in online services or a preference for face-to-face services. Previous research by Suryawidjaja et al. (2023) indicates that the higher a person's digital literacy, the easier they feel it is to use a technology-based system or service. Thus, to ensure the acceptance of the digitalization of public services at the Rembang Regency Public Service Mall, increasing the public's digital literacy is crucial.

Unified Theory of Acceptance and Use of Technology (UTAUT)

This study will use the Unified Theory of Acceptance and Use of Technology (UTAUT) approach as a relevant framework to analyze public acceptance of digital MPP technology. UTAUT is a comprehensive model that combines several theories of technology acceptance into a single, broader framework. Developed by Venkatesh (2022), this model aims to predict the intention to use and the actual use of information systems and to provide a better understanding of the components that influence the acceptance of information technology. According to Venkatesh (2022), UTAUT identifies four main constructs that directly influence the intention to use, namely performance expectancy, which refers to the extent to which an individual believes that using a system will help them achieve gains in their work or relevant tasks. In the context of the digital MPP, this means the public's belief that digital services will be faster, easier, more accurate, and more efficient than manual services. Second, effort expectancy, which refers to the extent to which an individual believes that using a system will be free from effort or will not require a lot of effort. This relates to the ease of use and navigation of the digital platform. Third, social influence, which describes the extent to which an individual perceives that people important to them (e.g., family, friends, colleagues, or community leaders) believe they should use the new system. This factor shows that a person's decision to use technology is often influenced by social norms and encouragement from their surrounding environment. Fourth, facilitating conditions, which refer to the extent to which an individual believes that the organizational and technical infrastructure is available to support the use of the system. This includes the availability of devices (computers, smartphones), stable internet access, adequate technical support (e.g., helpdesk, user guides), and the knowledge required to use the technology. In the context of the Rembang MPP, the availability of a stable internet network and a help center are examples of facilitating conditions.

RESEARCH METHODS

To study the public's acceptance of digital public services at the Rembang Regency Public Service Mall, this research uses a quantitative method. This approach was chosen because the study aims to test hypotheses, measure the relationship between predetermined variables (digital literacy, diffusion of innovation, and the acceptance of digitalization through UTAUT), and generalize the findings from a sample to a larger population. By using statistical methods, quantitative research allows for the identification of patterns, cause-and-effect relationships, and the statistical significance of findings, providing a strong basis for policy recommendations. The research method was carried out by distributing closed-ended questionnaires via Google Forms using a Likert scale. A 5-point Likert scale, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree), was used to measure the level of a respondent's agreement.

The selection of respondents was based on the threshold theorem, which states that to obtain representative and statistically analyzable data, participants must have direct experience with the object being studied. In this context, having used the digital service at least once was set as the minimum participation threshold. Additionally, the number of respondents, 45 people, met the minimum recommended number of 30, as stated by Roscoe in Kurniawan (2019) who suggested that a sample size of 30-500 respondents in behavioral research ensures the validity of statistical analysis. The sample population consisted of respondents who had visited the Public Service Mall, which is spread across 14 sub-districts. The criteria for participation were: (1) individuals aged 17 years or older, (2) people who had received service documents such as permits and others, and (3) individuals who had visited the MPP more than once to receive services. These individuals are capable of articulating the research needs and providing their views on the MPP's services.

The sampling technique used in this research is random sampling based on the previously explained respondent criteria. The researcher identified individuals based on the criteria, and from those results, the researcher conducted a random selection of the targeted respondents.

The questionnaire instrument consisted of 26 questions structured based on the variables from the Unified Theory of Acceptance and Use of Technology (UTAUT), the theory of diffusion of innovation, and the concept of digital literacy. The indicators for the UTAUT variables are performance expectancy, effort expectancy, facilitating conditions, and social influence. The digital literacy variables include digital skills, digital ethics, digital safety, and digital culture. The diffusion of innovation variables consist of relative advantage, compatibility, complexity, trialability, and observability. Each indicator is represented by two questions in the questionnaire.

The collected data are then processed and analyzed using SPSS (Statistical Product and Service Solution) to find the relationship between the independent variables (digital literacy and diffusion of

innovation) and the dependent variable (public acceptance of digitalization, using the UTAUT approach). The first stage of this analysis is as follows:

Validity Test

This test is intended to determine whether the research instrument is valid or not. The criterion for the validity test is that the calculated R-value must be greater than the R-table value. If it is, the research instrument is declared valid. The R-table value is obtained from the formula R-table = df (N-2) (Janna & Herianto, 2021)

Reliability Test

According to Notoatmodjo (2005) in Janna & Herianto (2021), a reliability test is conducted to measure whether a research instrument can be consistently used and will always produce stable results. In this study, the Cronbach's Alpha method will be used for the reliability test. The criterion for a reliable instrument is a Cronbach's Alpha value greater than 0.6.

Tabel 1. Reliability Category

Nilai *Cronbach's Alpha (a)*	Reliability Category
0,90-1,0	Very High
0,70-0,89	High
0,40-0,69	Acceptable
0,20-0,39	Low
0,00-0,19	Very Low

(Abdullah & Sutanto, 2015)

Normality Test

A normality test is used to determine if the data for each research variable has a normal distribution (Ghozali, 2018). The rule for making a decision is as follows: if the significance value is greater than 0.05, the residual value is normally distributed. However, if the significance value is less than 0.05, the residual value is not normally distributed.

Statistik Deskriptif

This is used to describe the characteristics of the research variable data. It includes the minimum, maximum, mean, and standard deviation for each variable (Ghozali, 2018)

Multiple Linear Regression Test

According to Ghozali (2018), this analysis is used to determine whether there is a relationship between the independent variables (digital literacy and diffusion of innovation) and the dependent variable (public acceptance). This is done using the following model:

$$Y = a + b_1X_1 + b_2X_2 + \ldots + b_nX_n$$

Legend:

Y : Technology adoption (UTAUT approach)

a : Constant (fixed value)

b_1, b_2 : Regression coefficients (estimated values)

X_1 : Digital literacy

X_2 : Diffusion of innovation

Hypothesis Testing

According to Ghozali (2018), a hypothesis is a speculative, temporary statement about the correlation between two or more variables. A statistical test is used to determine its validity by checking for sufficient empirical support for the statement. In this research, the researcher formulated three hypotheses to be tested:

H_0: Digital literacy and diffusion of innovation do not have an effect on the digitalization of public services at the Rembang Regency Public Service Mall.

H_1: Digital literacy and diffusion of innovation have a positive effect on the digitalization of public services at the Rembang Regency Public Service Mall.

The testing will be conducted using the following two methods:

T-Test

The T-test shows the individual influence of each variable, indicating whether it has a significant partial effect on the dependent variable. The rule for the T-test, according to Ghozali (2018), is if the calculated T-value is greater than the T-table value, the significance value is less than 0.05, then the null hypothesis (H0) is rejected and the alternative hypothesis (Ha) is accepted. This means there is a significant relationship with the dependent variable. However, if the calculated T-value is less than the T-table value, the significance value is greater than 0.05, then the null hypothesis (H0) is accepted and the alternative hypothesis (Ha) is rejected. This indicates there is no significant relationship with the dependent variable.

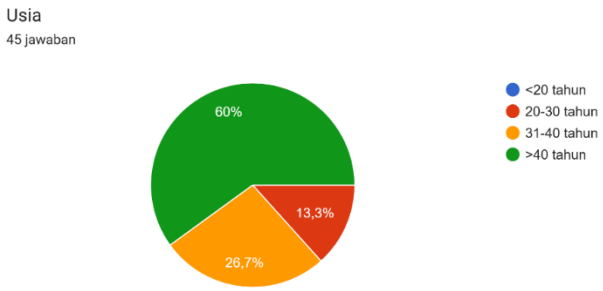
F-Test

According to Ghozali (2018), the F-test shows whether the independent variables collectively or simultaneously have a significant effect on the dependent variable. The decision rule is if the significance value is 0.05 or the calculated F-value is greater than the F-table value, then the independent variables have an effect on the dependent variable. Meanwhile, if the significance value is greater than 0.05 or the calculated F-value (Fhitung) is less than the F-table value, then the independent variables do not have a simultaneous effect on the dependent variable.

RESEARCH RESULTS

There were 45 respondents who actively participated in filling out the research questionnaire. All respondents were residents of Rembang Regency who had used the digital services at the Rembang Regency Public Service Mall at least once.

Figure 2. Respondent Age



Source: Processed primary data, 2025

Based on the diagram above (figure 2), 60% of the respondents who filled out the questionnaire were over 40 years old, while 26.7% were 31-40 years old, and 13.3% were 20-30 years old. This shows that most of the people who use the digital public services at the Rembang Public Service Mall are over 40. This demographic finding is very significant because the majority of users of digital services at the Rembang Public Service Mall are over 40 years old. This age group is often associated with varying levels of digital literacy and may face greater challenges in adapting to new technology compared to younger generations. This indicates that the MPP's digitalization strategy must take these demographic characteristics into account, including the design of the user interface, public outreach, and technical support.

Validity Test

Tabel 2. Result of Validation Test

Question Item	$r_{calculated}$	r_{table}	Decision
X1	0.811	0.294	Valid
X2	0.703	0.294	Valid
X3	0.624	0.294	Valid
X4	0.770	0.294	Valid
X5	0.639	0.294	Valid
X6	0.717	0.294	Valid
X7	0.856	0.294	Valid
X8	0.835	0.294	Valid
X9	0.803	0.294	Valid
X10	0.877	0.294	Valid
X11	0.882	0.294	Valid
X12	0.910	0.294	Valid
X13	0.892	0.294	Valid
X14	0.920	0.294	Valid
X15	0.720	0.294	Valid
X16	0.833	0.294	Valid
X17	0.761	0.294	Valid
X18	0.852	0.294	Valid
Y1	0.763	0.294	Valid
Y2	0.679	0.294	Valid
Y3	0.755	0.294	Valid
Y4	0.770	0.294	Valid
Y5	0.677	0.294	Valid
Y6	0.811	0.294	Valid
Y7	0.658	0.294	Valid
Y8	0.737	0.294	Valid

Source: Processed primary data. 2025

To perform a validity test, the correlation coefficient between each question and the total score is compared to the R-table value from a product-moment correlation. For this study, with a two-tailed test, a significance level of 0.05, and a sample size (N) of 45 respondents, the R-table value is 0.294. The results show that the calculated R-value for all questions in the questionnaire is greater than 0.294. Based on this finding, it can be concluded that all questions in the questionnaire are valid.

Reliability Test

Tabel 3. Result of Reliability Test

Cronbach's Alpha	N of Items
0.961	26

Source: Processed primary data. 2025

The result of the reliability test using the Cronbach's Alpha method showed a result of 0.961, while the criterion value for Cronbach's alpha is 0.6. Therefore, the questionnaire items can be said to be reliable. Abdullah & Sutanto (2015) argue that a value of 0.9-1 can be categorized as very highly reliable, indicating that the questionnaire items are very consistent in measuring the variables being studied and are dependable for data collection.

Normality Test

Tabel 4. Results of the Normality Test

		Unstandardiz ed Residual
N		45
Normal Parameters[a,b]	Mean	0.0000000
	Std. Deviation	2.3692808
Most Extreme Differences	Absolute	0.093
	Positive	0.90
	Negative	-0.093
Kolmogrov-Smirnov Z		0.626
Asymp. Sig. (2-tailed)		0.829

a. Test distribution is Normal
b. Calculated from data

Source: Processed primary data. 2025

The test results showed an Asymp. Sig. (2-tailed) value of 0.829, which is well above the significance threshold of 0.05. This indicates there's no significant deviation from a normal distribution. Therefore, we can conclude that the residuals in the regression model are normally distributed. This finding confirms that the regression model used meets the assumption of normality, making it valid for multiple linear regression analysis.

Descriptive Statistics

Tabel 5. Results of Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
UTAUT (Y)	45	21	40	32.56	3.864
Digital Literacy (X1)	45	23	40	33.62	3.804
Diffusion of Innovation (X2)	45	23	50	39.82	5.902
Valid N (listwise)	45				

Source: Processed primary data. 2025

Based on the results of the descriptive statistical analysis of 45 respondents, the digital literacy (X1) variable showed a minimum value of 23 and a maximum of 40, with a mean of 33.62 and a standard deviation of 3.804. This reflects that the respondents have a fairly good level of digital literacy. Meanwhile, the diffusion of innovation (X2) variable showed a range of values from 23 to 50, with the highest mean of 39.82 and a standard deviation of 5.902. This high mean indicates that the majority of respondents tend to be open to innovation and change. Finally, the UTAUT (Y) variable had a minimum value of 21 and a maximum of 40, with a mean of 32.56 and a standard deviation of 3.864. This value indicates that, in general, the level of public acceptance of digital public services is in the high category, with a relatively moderate level of data spread.

Multiple Linear Regression Test

Tabel 6. Results of the Coefficient Test

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.899	3.253		2.120	0.40
	Literasi Digital (X1)	0.487	0.155	0.479	3.145	0.003
	Difusi Inovasi (X2)	0.234	0.100	0.357	2.342	0.024

Dependent Variable: UTAUT (Y)

Source: Processed primary data. 2025

The multiple linear regression model obtained is Y=6.899+0.487X1+0.234X2. This model reveals a positive contribution from both independent variables to the dependent variable. The constant of 6.899 is the base value of digitalization acceptance when both digital literacy (X1) and diffusion of innovation (X2) are zero. A one-point increase in digital literacy (X1) will increase technology acceptance (Y) by 0.487, while a one-point increase in the diffusion of innovation (X2) will increase technology acceptance (Y) by 0.234. Overall, the regression model demonstrates that digital literacy has a greater influence on digitalization acceptance compared to the diffusion of innovation.

Hypothesis Test

T-Test (Partial)

Tabel 7. Results of the T-Test

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.899	3.253		2.120	0.40
	Literasi Digital (X1)	0.487	0.155	0.479	3.145	0.003
	Difusi Inovasi (X2)	0.234	0.100	0.357	2.342	0.024

Dependent Variable: UTAUT (Y)

Source: Processed primary data. 2025

The T-test results show that both digital literacy (X1) and the diffusion of innovation (X2) have a positive and significant effect on the acceptance of digital public services. Digital literacy (X1) has a t-value of 3.145, which is greater than the t-table value of 2.017, and a significance value of 0.003 ($p < 0.05$). This indicates that digital literacy has a positive and significant partial effect. Similarly, the diffusion of innovation (X2) has a t-value of 2.342, which is also greater than the t-table value of 2.017, and a significance value of 0.024 ($p < 0.05$). This also means that the diffusion of innovation has a positive and significant partial effect on digitalization acceptance.

F-Test (Simultaneous)

Tabel 8. Results of the F-Test

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	410.117	2	205.059	34.869	0.000[b]
	Residual	246.994	42	5.881		
	Total	657.111	44			

Source: Processed primary data. 2025

The calculated F-value is 34.869, which is greater than the F-table value of 4.073. The significance level is 0.000, which is well below the 0.05 threshold. The F-test results confirm that digital literacy and diffusion of innovation together have a significant effect on the public's acceptance of digital public services. These findings lead to the conclusion that the research hypothesis (H1) is accepted and the null hypothesis (H0) is rejected. This means the regression model used is effective at explaining the variation in the public's acceptance of digitalization.

DISCUSSION

Interpretation of Descriptive Statistics and Their Connection to Real-World Conditions

Based on the descriptive statistical analysis of 45 respondents, the digital literacy (X1) variable showed a mean of 33.62 and a standard deviation of 3.804. This indicates a fairly good level of digital literacy among the public using the digital services at the Rembang Regency Public Service Mall (MPP). This means that most people have a basic understanding and the ability to interact with digital technology, including skills like operating a smartphone, accessing the internet, and understanding online information. However, "fairly good" doesn't mean perfect. There is still room for improvement, especially given specific issues like inconsistent operating hours and the absence of an online queue, which can hinder optimal technology use. This finding is consistent with Bawden (2001) theory, which states that digital literacy is not just about technical skills but also includes the ability to interact deeply with digital information. Despite the challenges, the public shows adaptability, which may be due to their capacity in the four pillars of digital literacy as outlined by KOMINFO (2023): digital skills, digital ethics, digital safety, and digital culture.

The diffusion of innovation (X2) variable showed a range of values between 23 and 50, with a high average of 39.82 and a standard deviation of 5.902. The high average indicates that most respondents are open to innovation and change and accept innovations not just out of need but also because they are perceived as better (faster and more efficient), not too complex to learn, and can be tried (trialability) with minimal risk. Additionally, the observability of these benefits (e.g., seeing a neighbor successfully process documents online) also plays a role in encouraging this openness. This

is a significant asset for the local government in introducing digital service innovations, as the public already has an inherent willingness to try new things.

Finally, the technology acceptance (UTAUT approach) (Y) variable had a minimum value of 21 and a maximum of 40, with a mean of 32.56 and a standard deviation of 3.864. This indicates that, overall, the level of public acceptance of digital public services is high, with a relatively moderate spread of data. This means that despite technical and infrastructure obstacles, the public, as a whole, still shows a strong intention to use the digital services. This high level of acceptance is likely driven by a combination of factors, including the need for more efficient services, an awareness of technology's benefits, and potentially encouragement from their social environment, or the perception that digital services are the new standard. It may also show that the public is willing to tolerate some shortcomings if the overall benefits of digitalization are perceived as greater.

Analysis of the Influence of Digital Literacy and Diffusion of Innovation on Digitalization Acceptance

The multiple linear regression test results indicate that both independent variables—digital literacy (X1) and diffusion of innovation (X2)—have a positive and significant effect on the dependent variable of digitalization acceptance (Y) at the Rembang Regency MPP. This means that a simultaneous increase in digital literacy and the diffusion of innovation will increase the public's level of acceptance of digital public services. The constant value of 6.899 shows the baseline level of digitalization acceptance when X1 and X2 are zero. A one-point increase in digital literacy (X1) will lead to a 0.487 increase in the technology acceptance variable (Y), while a one-point increase in the diffusion of innovation (X2) will lead to a 0.234 increase in the technology acceptance variable (Y). These findings reinforce that the public's ability to understand digital technology and their openness to innovation are key factors in increasing the acceptance of public service digitalization at the Rembang Regency MPP.

The partial T-test further shows that digital literacy (X1) has a positive and significant effect on the acceptance of digital public services. The higher the level of digital literacy, the more likely the public is to accept digital services with the digital skills, ethics, security, and culture they possess. Meanwhile, the diffusion of innovation (X2) also has a positive and significant effect on digitalization acceptance. The public that is more inclined to accept new innovations is more open to accepting digital technology services, considering the relative advantage, compatibility, complexity, trialability, and observability of the technology. Thus, both digital literacy and the diffusion of innovation contribute significantly and partially to the public's acceptance of digital public services.

The simultaneous F-test also confirms this finding. Based on the ANOVA results, digital literacy and the diffusion of innovation, when considered together, have a significant effect on the

public's level of acceptance of digital public services. Therefore, hypothesis H1 is accepted, and H0 is rejected. This result indicates that both independent variables have a strong collective contribution in explaining the variation in the dependent variable, meaning the successful implementation of digitalization in public services is heavily influenced by the public's level of digital literacy and their willingness to accept and adopt technological innovations.

The Role of Digital Literacy (X1):

Digital literacy is proven to have a positive and significant influence on digitalization acceptance. This shows that the higher the public's level of digital literacy, the greater their intention to accept and use digital services at the Rembang Regency Public Service Mall (MPP). Digital literacy is not just a basic ability to operate technology, but also includes a deeper understanding of various aspects. First, in terms of digital skills, people who are accustomed to using applications, navigating websites, and filling out online forms will feel more confident and comfortable interacting with the MPP's digital services. Conversely, a lack of these basic skills is a major obstacle because it increases effort expectancy and can lead to frustration. Second, digital ethics plays a vital role in building trust in digital systems. When the public understands how to act responsibly and safely online, they will feel more confident that their personal data is protected, which increases their performance expectancy of digital services. Third, the aspect of digital safety knowledge of cyber risks and how to avoid them is crucial for building a sense of security when conducting online transactions. People who feel this sense of security will be more willing to adopt digital services. Finally, digital culture the ability to adapt to technological developments and make them a part of daily life also contributes to promoting acceptance. When the public is accustomed to the digital environment, the transition to digital-based MPP services will be smoother and more natural.

In the context of the Rembang MPP, with 60% of respondents aged over 40, investing in digital literacy enhancement programs is very crucial. This age group may need a more personalized approach, gradual training, and easy-to-understand materials to build their confidence in using digital services. If digital services are designed well, people with high digital literacy will see the direct benefits (performance expectancy) and not feel challenged (effort expectancy).

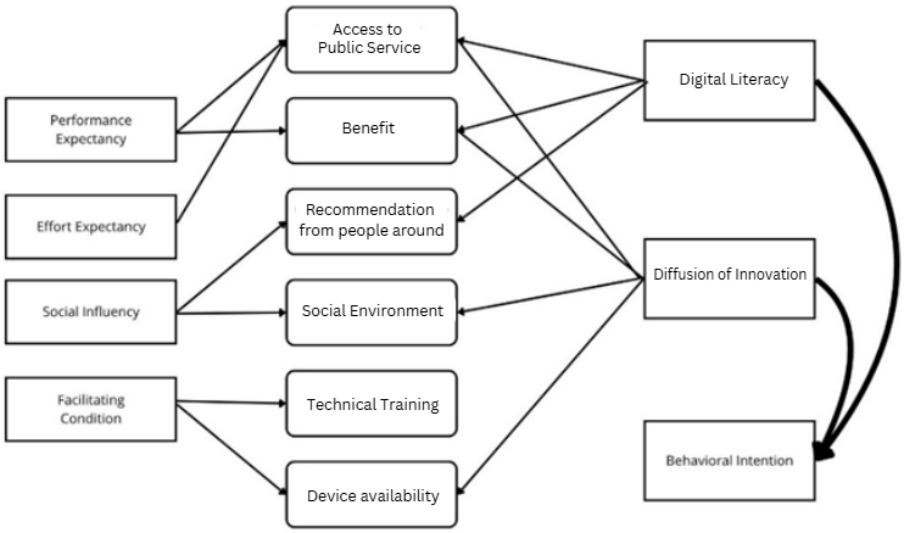
The Role of Diffusion of Innovation (X2):

The diffusion of innovation also has a positive and significant effect on digitalization acceptance. This shows that the public's perception of the characteristics of MPP digital service innovations is highly influential on their adoption rate. When the public views digital services as innovative and beneficial, they tend to accept them more quickly. The integration between diffusion of innovation and UTAUT is very clear. The public's perception of the relative advantage and observability of the innovation directly influences performance expectancy. Meanwhile, the

complexity of the innovation is closely related to effort expectancy. Compatibility and trialability also indirectly influence perceptions of ease and benefit. Additionally, social influence also plays an important role in the diffusion of innovation, where recommendations from the social environment can accelerate the adoption process.

Correlation Between Variables (Integrative Model)

Figure 2. Correlation Between Variables



Source: Processed primary data, 2025

The model used in this study, which implicitly integrates the Unified Theory of Acceptance and Use of Technology (UTAUT) approach with digital literacy and the diffusion of innovation, shows that the acceptance of public service digitalization isn't determined solely by the technology's features. Instead, it's more deeply rooted in the user's readiness and perception of the technology. This model is designed to explain how various UTAUT constructs performance expectancy, effort expectancy, social influence, and facilitating conditions interact with a user's digital literacy and the drive from innovation diffusion to form the public's behavioral intention to use digital public services.

In this approach, performance expectancy contributes to the public's perception of the benefits of using digital services. When digital services are seen as providing ease, speed, and accuracy, people tend to access them more actively, which in turn boosts their digital literacy and the diffusion of innovation. Effort expectancy, or the perceived ease of using the digital system, influences the extent to which people recommend the service to others, creating a social effect that strengthens the spread of innovation and the motivation to learn the technology. Social influence reflects the role of the social environment in encouraging technology use, manifested as support from family, friends, or digital communities. Meanwhile, facilitating conditions, which include technical training,

infrastructure support, and device availability, form the crucial foundation that enables the public to access services and build trust in the digital transformation.

This model also shows that the relationship between digital literacy and the diffusion of innovation is reciprocal and mutually reinforcing. Digital literacy allows individuals to understand and utilize innovations more effectively, while innovations designed to be intuitive and adaptive can stimulate an increase in digital literacy through tangible learning experiences. This confirms that digital transformation cannot be achieved merely by providing digital systems, but also must be accompanied by developing user capabilities and changing the behavior of the public as the end-users.

These obstacles create a significant bottleneck in the process of optimal digital adoption. Therefore, improving facilitating conditions, such as developing an online queuing system and enhancing the quality of the user interface and content of the official MPP website, are crucial steps. Likewise, increasing effort expectancy through simplifying UI/UX design and strengthening digital literacy through training that reaches all segments of society are urgent needs for the digitalization of public services in Rembang Regency to be inclusive and sustainable.

Thus, the integration of the UTAUT model, digital literacy, and the diffusion of innovation provides a comprehensive understanding of the factors determining the public's acceptance of public service technology. This approach emphasizes the importance of building a digital ecosystem that not only focuses on infrastructure and applications but also on human resource readiness, social participation, and a dialogical communication process between the government and the public. Only through this holistic synergy can digital transformation be effectively realized at the local level.

Implications of Findings for Rembang Regency MPP

The findings of this study have strong practical implications for the Rembang Regency Government and the managers of the Public Service Mall (MPP) in designing more effective, sustainable, and user-centered digital service strategies. The public's acceptance of digital service digitalization is not only determined by technical aspects like the availability of platforms or applications but is also highly influenced by the public's perception of the benefits (performance expectancy) and ease of use (effort expectancy) of the services, as explained in the UTAUT model. In addition, contextual factors such as social support, technical training, digital literacy, and the availability of digital devices and infrastructure are key determinants of the public's readiness to adopt digital services.

Therefore, the implementation of digital policies in the public service sector must be accompanied by a systematic strategy to improve the public's digital literacy, strengthen the information technology ecosystem, and ensure that service designs genuinely match the needs and

abilities of the users. This strategy includes a continuous increase in digital literacy through training that is not a one-time event but is structured and contextual, especially given that over 60% of the respondents are over 40 years old. Training modules need to reach the sub-district and village levels, with practical materials on using the internet, public service applications, cybersecurity, and accessing information from government websites.

To support this, simplifying the user interface (UI) and user experience (UX) on the MPP's digital platforms is crucial. The design should be as simple as possible with easy-to-understand language, intuitive icons, and a concise process flow to reduce user effort expectancy. It is also important to provide direct technical assistance through a help desk at the MPP, as well as online via a call center or chatbot. MPP personnel also need to be trained to provide patient, empathetic, and effective assistance.

Digitalization efforts must also be widely socialized through various channels, including social media, traditional media, and community forums. Collaboration with local community leaders or influencers can increase social influence, which accelerates digital adoption among citizens. Furthermore, the study's finding that highlights the importance of innovation diffusion confirms the need to improve service quality and infrastructure. One important aspect is the acceleration of the implementation of an online queuing system, which is still not available at the Rembang MPP. The local government needs to make this a priority, whether through the allocation of regional budgets, central government support, or partnership schemes with third parties.

The official MPP website, as the main gateway for digital services, also needs to be improved. This includes providing accurate and up-to-date information, presenting informative and contextual statistical data, and harmonizing operating hours across platforms. Internet network stability is also a concern, including providing public Wi-Fi for visitors. Finally, strengthening the digital ecosystem and implementing user-centric policies must be done in an integrated manner. This includes coordination among the agencies within the MPP, strengthening community feedback mechanisms, and regularly evaluating incoming suggestions and complaints. The redesign of digital services must always consider how those services provide tangible benefits (faster, easier) and reduce user effort. By implementing these steps, the Rembang Regency Government can not only increase the acceptance of MPP digitalization but also build a more adaptive, inclusive, and responsive governance to the public's needs in the ever-evolving era of digital transformation.

CONCLUSION

This research analyzes public acceptance of digitalization at the Rembang Regency Public Service Mall (MPP) using the Unified Theory of Acceptance and Use of Technology (UTAUT)

approach, integrated with the concepts of digital literacy and diffusion of innovation. The results consistently show that both digital literacy and diffusion of innovation positively and significantly influence the acceptance of digitalization at the Rembang Regency MPP, both partially and simultaneously. People with a good level of digital literacy tend to more easily accept and use the MPP's digital services. This literacy includes the technical skills, as well as an understanding of digital ethics, security, and culture that supports effective online interaction. Additionally, the public's perception of the innovation's characteristics, such as its relative advantage, compatibility, and ease of use, also significantly encourages their intention to adopt the services. These findings underscore that the success of public service digitalization initiatives heavily depends on the readiness and positive perception of the end-users.

The practical implications of this research emphasize the need for a comprehensive strategy for the Rembang Regency Government. First, there must be a continuous increase in digital literacy through training programs tailored to the user demographic (especially the age group over 40) and the simplification of the user interface on digital platforms. Second, the acceleration of innovation adoption is crucial, prioritizing the implementation of an online queuing system, improving the quality of the official MPP website to be more informative and accurate, and harmonizing operating hours information across all digital platforms. Third, the strengthening of the digital ecosystem is needed by providing adequate infrastructure and responsive technical support. By focusing on these aspects, the Rembang Regency MPP can provides more efficient, transparent, and responsive public services, while also increasing public satisfaction and trust in the government. This research recommends that the local government continue to invest in these areas so that the digital transformation of public services can be optimally and sustainably realized.

REFERENCES

Abdullah, S., & Sutanto, T. E. (2015). *Statistika Tanpa Stress* (1st ed.). Transmedia.

Akhyar, M. (2025). Analisis Kepuasan Pengguna Sipenduk Online Dalam Mendukung Implementasi Pelayanan Publik Di Kabupaten Rembang Menggunakan EUCS. *IHSAN Jurnal Pendidikan Islam, 3*. http://ejournal.yayasanpendidikandzurriyatulquran.id/index.php/ihsan

Atisyah, D., Ramadhani, R., Sadri, R., Waty, E. N., & Administrasi, J. (2025). Teknologi Digital dalam Meningkatkan Efektivitas Layanan di Mal Pelayanan Publik Kota Pekanbaru. *Journal of Multidisciplinary Inquiry in Science Technology and Educational Research*, *2*(1), 779. https://doi.org/10.32672/mister.v2i1.2524

Bawden. (2001). Information and digital literacies; a review of concepts. *Journal of Documentation, 57*(2), 218–259. http://hdl.handle.net/10150/105803

Fauzi, A. R., & Witjaksono, H. (2024). Implementasi Digitalisasi di DPMPTSP Kabupaten Rembang. *Jurnal Kolaboratif Sains, 7*(10), 3767–3773. https://doi.org/10.56338/jks.v7i10.6207

Ghozali, I. (2018). *Aplikasi Analisis Multivariate Dengan Program IBM SPSS 25* (9th ed.). Badan Penerbit Universitas Diponegoro.

Hafiz, A., Raudah, S., & Fahmi, Y. (2025). Kualitas Pelayanan Masyarakat di Mall Pelayaan Publik (MPP) Kabupaten Hulu Sungai Utara. *Jurnal Pelayanan Publik*, *2*, 417–425. https://ejurnal.stiaamuntai.ac.id/index.php/JPP/article/download/1107/892

Hutabarat, J. S., Mawartina, J., & Yanti, D. (2025). Peluang dan Tantangan dalam Efisiensi Anggaran Negara pada Transformasi Digital Pelayanan Publik. *Konstitusi : Jurnal Hukum, Administrasi Publik, Dan Ilmu Komunikasi*, *2*(3), 28–40. https://doi.org/10.62383/konstitusi.v2i3.752

Janna, M. N., & Herianto. (2021). *Konsep Uji Validitas dan Reliabilitas dengan Menggunakan SPSS*. https://doi.org/https://doi.org/10.31219/osf.io/v9j52

Juita, Sapar, & Salju. (2023). Meningkatkan Kepuasan Mayarakat di Mall Pelayanan Publik. *CAPITAL: Jurnal Ekonomi Dan Manajemen*, *6*(2), 383. https://doi.org/10.25273/capital.v6i2.14122

Kurniawa, A. (2019). Pengaruh Model Pembelajaran Berbasis Masa-lah Terhadap Motivasi Belajar Dan Hasil Belajar Pada Mata Pelajaran Geografi Di SMA Tahfidz Darul Ulum Banyuanyar Pamekasan. *Jurnal Penelitian Dan Pendidikan IPS (JPPI)*, *13*(1), 1–13. https://doi.org/https://doi.org/10.21067/jppi.v13i1.4739

Natika, L. (2024). *TRANSFORMASI PELAYANAN PUBLIK DI ERA DIGITAL: MENUJU PELAYANAN MASA DEPAN YANG LEBIH BAIK* (Vol. 6). http://ejournal.unsub.ac.id/index.php/publik

Naufal, H. A. (2021). Literasi Digital. *Perspektif*, *1*(2), 195–202. https://doi.org/10.53947/perspekt.v1i2.32

Novetu, J. R., & Rahman, A. Z. (2025). Analisis Kepuasan Masyarakat Mal Pelayanan Publik Melalu Importance Performance Analysis Di Kabupaten Rembang. *NOVA IDEA*, *1*, 167. https://doi.org/https://doi.org/10.14710/nova_idea.49617

Puspitasari, N. (2020). *Komunikasi Interpersonal Customer Service Di MPP Kota Bogor*. https://doi.org/10.37817/ikraith-humaniora

Reza Mahendra, R., & Adnan, M. (2025). Inovasi Mal Pelayanan Publik (MPP) Oleh Dinas Penanaman Modal Dan Pelayanan Terpadu Satu Pintu (Dpmptsp) Di Kabupaten Grobogan. *Journal of Politic and Government Studies*, *14*, 1035–1054. https://ejournal3.undip.ac.id/index.php/jpgs/article/view/50167

Rimbawan, I., Sudiari, N. M., & Husada, I. (2025). *I Putu Dedy Rimbawan, Ni Made Sudiari ; I Gede Githa Dharma Husada STRATEGI MANAJERIAL DALAM PENINGKATAN KUALITAS PELAYANAN PUBLIK : STUDI KASUS DI MAL PELAYANAN PUBLIK KABUPATEN BADUNG*. *8*(01). https://doi.org/https://doi.org/10.47532/jic.v8i01.1230

Rogers, E. M. . (1995). *Diffusion of innovations*. Free Press.

Sari, S., Putra, W., & Prakoso, B. (2020). Analisis Penerimaan Penggunaan Aplikasi Antrian Online pada Mal Pelayanan Publik Sidoarjo berdasarkan Unified Theory of Accepptance and Use of Technology (UTAUT). *Jurnal Pengembangan Teknologi Informasi Dan Ilmu Komputer*, *4*, 2585–2592. https://j-ptiik.ub.ac.id/index.php/j-ptiik/article/view/7720

Suryawidjaja, V., Beng, J. T., & Triatri, S. (2023). Peran Literasi Digital Dan Growth Mindset Pada Uji Model Penerimaan Aplikasi Pembelajaran Kolaboratif. *Jurnal Muara Ilmu Sosial, Humaniora, Dan Seni*, *7*(3). https://doi.org/https://doi.org/10.24912/jmishumsen.v7i3.26741

Venkatesh, V. (2022). Adoption and use of AI tools: a research agenda grounded in UTAUT. *Annals of Operations Research*, *308*(1–2), 641–652. https://doi.org/10.1007/s10479-020-03918-9

Yunaningsih, A., Indah, D., & Septiawan, F. E. (2021). *Upaya Meningkatkan Kualitas Layanan Publik Melalui Digitalisasi* (Vol. 3, Issue 1).