

Enhancing public services through e-government: The role of usefulness and service quality in strengthening user intention

Joko Tri Nugraha^{1*}, Sheila Andriani Kumala¹, Eny Boedi Orbawati¹,
and Matheus Gratiano Mali¹

¹ Universitas Tidar, Magelang, Indonesia

*Corresponding author email: jokotrinugraha@untidar.ac.id

Abstract

Citizen satisfaction with e-government services is a key indicator of successful public sector digital transformation. This study aims to analyze the influence of Service Usefulness, Service Ease of Use, Information Awareness, and Service Quality on citizen satisfaction with the Si-Cantik service in Magelang City. Using a quantitative approach, data were collected from 202 users through a survey and analyzed using Structural Equation Modeling with Partial Least Squares. The results show that Service Quality ($\beta = 0.550$) and Service Usefulness ($\beta = 0.337$) have significant positive effects on satisfaction, while Service Ease of Use ($\beta = 0.228$) also contributes positively with lower significance. In contrast, Information Awareness ($\beta = -0.182$) has no significant effect. The main finding highlights that service quality and perceived usefulness are the most decisive drivers of user satisfaction. These results imply that the Magelang City Government should prioritize enhancing service quality and tangible usefulness, alongside continuous improvements in usability, to sustain and strengthen citizen satisfaction with e-government services.

Keywords

E-government, Citizen satisfaction, Service quality, Usefulness, Ease of use, Si-Cantik.

Introduction

Digital transformation in public administration continues to advance as governments strive to deliver public services that are more efficient, accessible, and aligned with citizen expectations. A growing body of research highlights that improving citizen adoption and satisfaction toward e-government services has become a major concern, especially as digital platforms increasingly replace traditional face to face bureaucratic processes [1], [2], [3]. Scholars emphasize that this transition is driven not only by technological innovation but also by the need to rebuild public trust, enhance institutional credibility, and strengthen administrative responsiveness [4], [5], [6]. In addition, studies show that public perception and satisfaction have become essential

Published:
May 04, 2026

This work is licensed
under a [Creative
Commons Attribution-
NonCommercial 4.0
International License](#)

Selection and Peer-
review under the
responsibility of the 7th
BIS-STE 2025 Committee

indicators of governmental legitimacy in the era of digital governance [3], [5], [7]. These developments collectively illustrate how governments are redefining state citizen relations through technology-enabled public service models [8], [9].

Over the past four decades, administrative reforms have fundamentally reshaped how governments conceptualize and deliver public services. The movement toward modernization and responsiveness has encouraged institutions to adopt more citizen-oriented approaches in their operations [10]. This change reflects growing awareness that public satisfaction is a strategic component of effective governance. As citizens increasingly compare public services with private-sector standards, expectations for quality, accessibility, and convenience continue to rise [10], [11].

The reorientation of government institutions toward service-centered principles began notably in the 1980s and 1990s, coinciding with global public sector reform movements. During this period, bureaucratic organizations were encouraged to emulate managerial practices that prioritized efficiency, user satisfaction, and performance measurement [9]. Scholars argue that these reforms were shaped by societal demands for more transparent and accountable government operations [10], [11]. As a result, the idea of “citizens as customers” gained prominence in public administration discourse [9].

As governments focused more on service quality, they also introduced mechanisms to understand and measure citizen expectations. Public satisfaction surveys became an important instrument for evaluating service performance and identifying gaps in delivery [5], [6]. These tools provided opportunities for citizens to express their concerns and experiences with government services. Consequently, survey findings began to influence policy adjustments and institutional reforms in many jurisdictions [4], [5].

Complaint handling mechanisms also evolved significantly as part of these reforms. Many countries established formal procedures that enabled citizens to report dissatisfaction and request corrective actions from public institutions [2], [3]. Additionally, ombudsman institutions were created to ensure that government agencies remained accountable and responsive to public concerns [1], [4]. These complaint systems provided structural channels for dispute resolution and strengthened the feedback loop between governments and citizens [9].

Around the same period, governments introduced citizen charters as a symbolic and operational commitment to service improvement. The UK Citizen’s Charter served as a prominent early example, followed by adoption in France, Belgium, and other countries [7], [8]. These charters outlined service standards, user rights, and performance expectations to promote transparency. Over time, they contributed to shifting administrative culture toward a more citizen-centered orientation [2], [9].

As citizen charters matured, their principles were increasingly translated into operational guidelines for service delivery. Governments sought to ensure that service quality commitments were reflected in measurable and enforceable standards [5], [13].

This shift illustrated the growing recognition that public trust could only be maintained through consistent performance. Ultimately, service guidelines became institutionalized as part of broader administrative reform agendas [4].

The emergence of e-government in the 1990s further transformed the landscape of public service delivery. Digital technologies offered opportunities to streamline procedures, reduce administrative burdens, and promote real time access to government services [4], [14]. Scholars highlight that e-government represents not only a technological shift but also a major governance innovation designed to align public services with modern societal needs [15]. These developments have reshaped public expectations regarding efficiency and transparency [5], [6].

The widespread use of the internet accelerated the adoption of digital services. Citizens increasingly preferred online platforms due to convenience, time savings, and reduced physical interaction with bureaucratic institutions [10], [11]. Governments responded by expanding e-services and integrating digital tools across multiple administrative domains. This trend demonstrates how digital public services can reduce transaction costs and enhance accessibility for diverse user groups [10], [16].

To better understand citizen acceptance of digital services, researchers have extensively applied the Technology Acceptance Model (TAM) and related frameworks. These models emphasize key constructs such as perceived usefulness, perceived ease of use, and user awareness in predicting technology adoption [17], [18]. Empirical studies indicate that these variables significantly shape user satisfaction and intention to continue using e-government services [11], [19]. This theoretical foundation has informed many contemporary analyses of digital service utilization [20].

Despite the extensive application of TAM and TPB frameworks in technology adoption research, findings related to e-government remain inconsistent across countries and administrative contexts. Some studies report strong effects of usefulness and ease of use on satisfaction, while others find that cultural, institutional, or infrastructural factors play a more dominant role [16], [19]. These variations highlight the need for more context-sensitive investigations of digital service acceptance. Scholars therefore argue that technology adoption should be examined within specific governance environments rather than assumed to follow universal behavioral patterns [21].

Although prior studies have extensively employed the Technology Acceptance Model (TAM) and the Theory of Planned Behavior (TPB) to explain technology adoption in e-government contexts, the dominant theoretical orientation remains largely technocentric and behaviorally deterministic. Most existing frameworks prioritize cognitive evaluations such as perceived usefulness and perceived ease of use while underemphasizing broader service quality dimensions and governance-related constructs. As noted in several digital governance studies, public service environments differ fundamentally from private-sector technology settings because they are

embedded within institutional, regulatory, and accountability structures that shape user perceptions beyond mere functional utility [5], [10].

Moreover, traditional TAM-based models were originally developed for voluntary organizational technology usage, whereas e-government services often operate in semi-mandatory or necessity-driven contexts. This theoretical misalignment suggests that conventional adoption models may not fully capture satisfaction dynamics within public administration settings. In particular, variables such as service quality, information awareness, and trust-related perceptions may interact differently compared to commercial digital platforms. However, existing theoretical models rarely integrate these dimensions into a comprehensive framework tailored to local governance environments [16], [21].

Another important theoretical limitation lies in the separation between public administration reform literature and technology acceptance research. Studies on citizen charters, administrative responsiveness, and service quality reforms emphasize legitimacy and accountability as core outcomes [7], [9], yet these perspectives are seldom systematically linked with technology acceptance constructs in empirical e-government models. As a result, there remains a conceptual fragmentation between governance theory and digital adoption theory. This fragmentation creates a theoretical gap in understanding how citizen-centered public administration principles translate into measurable determinants of satisfaction within digital platforms.

Furthermore, most prior research treats satisfaction either as an outcome of adoption or as a mediator toward continued use intention, without sufficiently theorizing satisfaction as a governance performance indicator tied to legitimacy and trust formation. Given that digital public services operate within political-administrative systems rather than purely technological ecosystems, satisfaction should be positioned within a broader public value framework. However, few studies explicitly conceptualize e-government satisfaction as part of state–citizen relational dynamics.

Therefore, a theoretical gap exists in integrating service quality theory, citizen-centered governance principles, and technology acceptance models into a unified analytical framework capable of explaining satisfaction in local e-government contexts. Addressing this gap requires contextualizing TAM-related constructs within public administration reform paradigms and examining their combined effects in specific municipal governance settings. This integration is particularly relevant in developing-country environments where institutional trust, administrative capacity, and digital literacy levels vary significantly.

More recent studies highlight a growing emphasis on evaluating citizen satisfaction with e-government services rather than merely measuring adoption or initial acceptance. Alkrajji and Ameen emphasize that increasing citizen satisfaction is crucial to ensuring long-term system use and sustainability of digital public services [12]. Similarly, Alawneh et al. found that satisfaction serves as a key determinant shaping continued use

intention and digital engagement within public service platforms [22]. Despite this development, literature reviews indicate that relatively few studies explicitly examine the relationship between service attributes such as perceived usefulness, service quality, ease of use, privacy security, and information awareness and user satisfaction in e-government systems [5], [6], [10]. Previous analyses also highlight that contextual variable in developing countries, including digital literacy, institutional trust, and infrastructure inequality, may significantly influence how citizens assess service experience and satisfaction outcomes [6], [10]. This limited exploration reinforces the existence of a substantive empirical research gap, particularly in developing-country administrative settings where digital transformation continues to evolve.

In Indonesia, research on e-government has generally focused on evaluating implementation stages, institutional capacity, and administrative challenges. Studies reveal that local governments often face constraints such as limited resources, inadequate digital literacy, and bureaucratic inertia [23]. However, research examining user satisfaction and the determinants of technology acceptance remains relatively limited. This gap necessitates empirical studies that center on citizen experiences with e-government platforms [25], [26].

Specifically, previous investigations on the Si-Cantik application have focused more on operational and institutional dimensions than on user perceptions. Scholars have documented issues related to technical readiness, limited socialization, and human resource competence in regional governments [27], [28]. Yet, very few studies have analyzed how citizens evaluate the usefulness, quality, and ease of the system. This lack of empirical evidence presents an opportunity to better understand citizen-based evaluations of e-government performance [26].

Addressing this gap requires focusing on key determinants that influence citizen satisfaction, including information awareness, service ease of use, service usefulness, and service quality. These constructs have been widely recognized in digital governance literature as critical predictors of satisfaction and continued system use [13], [17]. However, their combined effects within the context of local government service applications such as Si-Cantik remain underexplored. Understanding these relationships is essential for strengthening digital service strategies in municipal governance [4], [29].

Therefore, this study aims to analyze the effects of information awareness, service ease of use, service usefulness, and service quality on citizen satisfaction with the Si-Cantik e-government service in Magelang City. Using a quantitative research design and SEM-PLS analysis, this study provides empirical evidence on the determinants of satisfaction and contributes to refining e-government acceptance models [30], [31]. The findings are expected to support local governments in formulating more responsive and citizen-centered digital service strategies. Ultimately, this research strengthens the understanding of how digital public services can enhance satisfaction and legitimacy in local governance contexts [5].

Method

This study employs a quantitative approach using a survey method [30]. The survey method was chosen to facilitate data collection from respondents by administering a series of questions through a questionnaire [31]. The population of this research consists of users of the Si Cantik system at the DPMPTSP of Magelang City, particularly in the non-business licensing sector, specifically those requesting research permit letters. The sample in this study comprises 202 respondents. The sample size exceeds the minimum requirement for Structural Equation Modeling using Partial Least Squares (SEM-PLS), which is considered suitable for predictive and exploratory modeling with complex latent constructs and relatively moderate sample sizes [30]. Although the sample size is limited, the distribution of the questionnaire was conducted systematically and carefully, ensuring that no duplicate responses occurred and that all submitted questionnaires were fully completed and met the required data quality standards. Respondents were selected using probability sampling with a simple random sampling technique to enhance representativeness and reduce selection bias. The questionnaire was distributed from June to October 2025 using Google Forms and shared through social media platforms such as Instagram an, WhatsApp and email. To analyze the data, the researcher utilized SMART PLS software to simplify the computation of the collected results. SEM-PLS was selected because it is robust for analyzing complex models involving multiple latent variables and indicators, does not require strict normality assumptions, and is appropriate for predictive-oriented research in public administration contexts. The analysis procedure included assessment of convergent validity, discriminant validity, composite reliability, and structural path significance through bootstrapping techniques. This analytical approach strengthens the rigor of the empirical examination and supports causal inference within the proposed theoretical framework [30].

Results and Discussion

Results

Based on Table 1 data collected from 202 respondents, the demographic profile reflects a diverse composition, although it is largely dominated by young individuals and students. In terms of gender, 126 respondents (62.4%) were female, while 76 respondents (37.6%) were male, indicating that women are more actively engaged in using e-government services particularly the Si-Cantik platform compared to men.

Regarding age distribution, the majority of participants (172 respondents or 85.1%) were between 17 and 21 years old, followed by the 22–26 age group with 26 respondents (13%). Only a very small number of participants were above 30 years old, accounting for less than 1%. These findings suggest that users of digital public services in Magelang City are predominantly younger individuals who are familiar with technology and digital platforms.

In terms of educational background, most respondents held a bachelor's degree (134 respondents or 66.3%), while 64 respondents (31.7%) were high school graduates. Respondents with associate, master's, or doctoral degrees were very limited, each representing less than 1% of the sample. This indicates that the majority of users possess secondary to higher education qualifications, which may positively influence their ability to navigate e-government systems.

Table 1. Overview respondent

No	Item	Category	Frequency	Percentage
1	Gender	Male	76	37.6
		Female	126	62.4
2	Age	17 – 21 years	172	85.1
		22 – 26 years	26	13
		27 – 31 years	0	0
		32 – 36 years	2	0.99
		37 – 41 years	1	0.49
		42 – 46 years	1	0.49
3	Education Background	Senior High School	64	31.7
		D3	1	0.5
		S1	134	66.3
		S2	1	0.5
		S3	2	1.0
4	Occupation	Civil Servant	2	1.0
		Teacher/Lecturer/Educator	3	1.5
		Student	193	95.5
		Private Sector Employee	1	0.5
		Entrepreneur	3	1.5
5	Location	Magelang Regency	81	40.1
		Kedu (Purworejo/Kebumen/Temanggung)	29	14.4
		Magelang City	60	29.7
		Others	32	15.8

When viewed from the perspective of occupation, students represented the overwhelming majority at 193 respondents (95.5%). Other professional categories such as civil servants, teachers/lecturers, private sector employees, and entrepreneurs each accounted for only 0.5% to 1.5% of the sample. This supports earlier findings that digital public service platforms are primarily accessed by young and educated populations.

In terms of residence, the largest proportion of respondents originated from Magelang Regency (81 respondents or 40.1%), followed by Magelang City (60 respondents or 29.7%), the wider Kedu region covering Purworejo, Kebumen, and Temanggung at 29 respondents (14.4%), and other regions accounting for 32 respondents (15.8%). This distribution shows that e-government service users are not limited to those residing in urban areas but also include individuals from neighboring regions and areas outside Magelang's administrative boundaries.

The following part discusses the results obtained from data processing with the SmartPLS tool shown in [Figure 1](#).

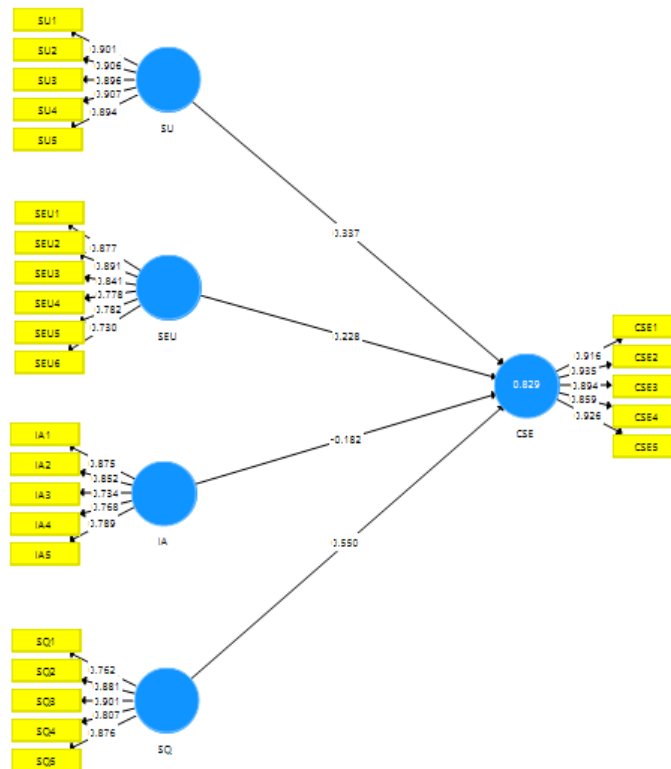


Figure 1. Outer model

There are factor loading and discriminant tests can be shown in [Table 2](#).

Table 2. Factor loadings

Variable	Item	Factor Loading	AVE
Service Usefulness	SU1	0.901	0.901
	SU2	0.906	
	SU3	0.896	
	SU4	0.907	
	SU5	0.894	
Service Ease of Use	SEU1	0.877	0.817
	SEU2	0.891	
	SEU3	0.841	
	SEU4	0.778	
	SEU5	0.782	
	SEU6	0.730	
Information Awareness	IA1	0.875	0.804
	IA2	0.852	
	IA3	0.734	
	IA4	0.768	
	IA5	0.789	
Service Quality	SQ1	0.762	0.845
	SQ2	0.881	
	SQ3	0.901	
	SQ4	0.807	
	SQ5	0.876	
Citizen Satisfaction of E-Government	CSE1	0.916	0.906
	CSE2	0.936	
	CSE3	0.894	
	CSE4	0.859	
	CSE5	0.926	

Based on the analytical results presented in the table, all indicators within each research variable exhibit factor loadings above 0.70 [30]. This confirms that every indicator is valid and effectively represents its respective construct. For the Service Usefulness variable, all indicators (SU1–SU5) demonstrate exceptionally high loading values between 0.894 and 0.907, with an AVE score of 0.901. These findings show that each item strongly reflects the usefulness dimension and illustrates a high degree of internal consistency. The Service Ease of Use construct also meets the criteria, with loading values ranging from 0.730 to 0.891 and an AVE of 0.817, indicating that its indicators reliably capture users' perceptions of ease in using e-government services. Although a few items, such as SEU6, display slightly lower loadings (0.730), they remain above the acceptable threshold.

In addition, the Information Awareness variable records factor loadings between 0.734 and 0.875 and an AVE value of 0.804, suggesting that its indicators are strongly associated with users' awareness of information provided by e-government platforms. Meanwhile, the Service Quality construct shows loadings from 0.762 to 0.901 with an AVE value of 0.845, confirming that each indicator contributes meaningfully to assessing service quality and aligns with citizens' perceptions of reliability, responsiveness, and professionalism in digital public service delivery.

The Citizen Satisfaction of E-Government variable presents very high factor loading values, ranging from 0.859 to 0.936, supported by an AVE score of 0.906. This reflects excellent measurement precision, as the indicators accurately capture the level of satisfaction among users. Overall, the results show that all constructs in the model have fulfilled the convergent validity requirements, given that every indicator surpasses the 0.70 loading criterion and each AVE exceeds 0.50. These findings confirm that the measurement model is appropriate and ready to be advanced to discriminant validity and construct reliability analyses.

Table 3. Reliability test

Variable	Cronbach's Alpha	Composite Reliability
Citizen Satisfaction of E-Government	0.946	0.958
Information Awareness	0.864	0.902
Service Ease of Use	0.901	0.924
Service Quality	0.901	0.927
Service Usefulness	0.942	0.956

Construct reliability testing (Table 3) was carried out to assess the internal consistency among indicators within each latent variable by employing two key measures: Cronbach's Alpha and Composite Reliability (CR). Referring to the standards outlined by Hair, a construct is classified as reliable when both Cronbach's Alpha and CR values are greater than 0.70 [30]. The results indicate that all variables in this study exceed these recommended thresholds, demonstrating that the measurement instruments used possess a satisfactory level of reliability in capturing the intended constructs.

More specifically, as presented in [Table 4](#), the Service Usefulness construct recorded a Cronbach's Alpha of 0.942 and a CR of 0.956, while the Citizen Satisfaction of E-Government construct achieved values of 0.946 and 0.958, respectively. Similarly, the Service Ease of Use variable ($\alpha = 0.901$; CR = 0.924), Service Quality ($\alpha = 0.901$; CR = 0.927), and Information Awareness ($\alpha = 0.864$; CR = 0.902) also demonstrated strong reliability levels. These results affirm that all constructs in the model can be considered reliable, as their indicators consistently represent the underlying variables and can be confidently used in subsequent stages of the model analysis.

Table 4. R square

Description	Information
Citizen Satisfaction of E-Government	0.829

The R-Square (R^2) assessment is employed to determine how much variance in the dependent variable can be accounted for by the independent variables within the model. As outlined by Hair, an R^2 value of 0.75 reflects a substantial effect, 0.50 indicates a moderate effect, and 0.25 represents a weak effect [30]. In general, a higher R^2 value signifies a greater capability of the model to explain the phenomenon under investigation.

The results presented in [Table 5](#) show that the Citizen Satisfaction of E-Government variable has an R^2 value of 0.829. This indicates that 82.9% of the variation in citizen satisfaction toward e-government services is accounted for by the independent variables, which include Service Usefulness, Service Ease of Use, Information Awareness, and Service Quality. Since this value exceeds the 0.75 benchmark, it can be inferred that the research model possesses very strong explanatory power and is highly effective in illustrating the relationships among the studied variables.

Table 5. f square

Description	Information
Information Awareness	0.059
Service Ease of Use	0.086
Service Quality	0.363
Service Usefulness	0.132

The analysis of the f^2 values shows that Information Awareness (0.059) and Service Ease of Use (0.086) exert a small influence on Citizen Satisfaction with E-Government. In contrast, Service Usefulness (0.132) demonstrates a moderate impact, suggesting that this variable plays an important role in shaping satisfaction levels. Service Quality (0.363), however, exhibits a strong effect, highlighting it as the most influential factor in determining citizens' satisfaction with e-government services. Overall, the f^2 results confirm that enhancements in service quality yield the greatest contribution to increasing citizen satisfaction compared with the other variables examined.

The hypothesis testing results, as presented in [Table 6](#), illustrate the influence of each independent variable on Citizen Satisfaction of E-Government through the T-statistic

and P-value indicators. Following the guidelines of Hair, a relationship is deemed significant when the T-statistic exceeds 1.96 and the P-value is below 0.05 at the 5% significance level, or below 0.01 for the 1% significance level, which reflects a highly significant effect [30].

Table 6. Hypothesis testing

	b	(STDEV)	T statistics (O/STDEV)	P values
Information Awareness -> Citizen Satisfaction of E-Government	-0.182	0.096	1.895	0.058
Service Ease of Use -> Citizen Satisfaction of E-Government	0.228	0.110	2.078	0.038
Service Quality -> Citizen Satisfaction of E-Government	0.550	0.134	4.093	0.000
Service Usefulness -> Citizen Satisfaction of E-Government	0.337	0.084	4.015	0.000

The findings show that Service Quality ($\beta = 0.550$; $T = 4.093$; $P = 0.000$) and Service Usefulness ($\beta = 0.337$; $T = 4.015$; $P = 0.000$) both meet the criteria for strong significance, as their T-statistics surpass 1.96 and their P-values fall below 0.01. This suggests that improvements in service quality and usefulness lead to higher levels of citizen satisfaction with e-government services. Additionally, Service Ease of Use ($\beta = 0.228$; $T = 2.078$; $P = 0.038$) shows a positive and significant influence, though only at the 5% significance threshold. In contrast, Information Awareness ($\beta = -0.182$; $T = 1.895$; $P = 0.058$) does not have a significant effect, as its T-statistic is below 1.96 and P-value exceeds 0.05. Overall, these results indicate that citizen satisfaction with e-government services in Magelang City is primarily driven by service quality and service usefulness, which emerge as the most dominant variables in the model.

Discussion

The findings indicate that Service Quality and Service Usefulness exert the strongest influence on Citizen Satisfaction with E-Government, demonstrated by p-values below 0.01 and t-statistics exceeding 1.96. These results suggest that improvements in service quality and the perceived benefits experienced by users directly elevate public satisfaction with the Si-Cantik platform in Magelang City. Both variables serve as crucial indicators that reflect how citizens evaluate the effectiveness of e-government initiatives. These outcomes are reinforced by the work of Kusumaratna and Suyanto, who assert that the quality of e-government services is fundamental in shaping satisfaction and fostering trust in governmental institutions [29]. Digital service quality not only captures the reliability and speed of system performance but also symbolizes the professionalism and accountability of public officials in delivering transparent services.

The study's results demonstrate that the Si-Cantik system has succeeded in offering a more efficient, accessible, and seamless service experience. Supporting this, Anisa et al. found that users of the Magelang Smart Service (MSS) application expressed high

satisfaction due to the platform's ability to integrate multiple public service needs into a single interface, thereby reducing administrative complexities and improving service efficiency [25]. Parallel findings by Ariandi et al., who investigated e-government satisfaction in Cirebon using a K-Means Clustering approach, revealed that user clusters with high perceptions of system dependability and speed exhibited the strongest satisfaction levels [26]. Taken together, these studies reinforce the conclusion that service quality remains a key determinant of citizen satisfaction within digital governance environments.

In addition to service quality, Service Usefulness also demonstrates a positive and significant impact on satisfaction ($\beta = 0.337$; $p < 0.01$). This underscores the role of perceived benefits in shaping user evaluations of digital services. Davis, through his Technology Acceptance Model (TAM), highlights that perceived usefulness is directly linked to user satisfaction and the likelihood of adopting new technology-based systems [17]. Similar evidence is provided by Rahman, Sari, and Wajidi, who observed that both perceived usefulness and service quality were central predictors of satisfaction in the context of the M-Paspor application [20]. Further, Kusumaratna and Suyanto argue that high perceived benefits strengthen public perceptions of government efficiency and responsiveness in digital service provision [29].

Within this research context, the usefulness of Si-Cantik is reflected in its capability to facilitate the submission and management of various administrative documents online without requiring citizens to visit government offices physically. This functionality not only reduces time and financial burdens but also shapes positive public perceptions regarding the success of local government digitalization initiatives. Consequently, strong perceived usefulness contributes to greater satisfaction and enhances user loyalty toward continued utilization of the Si-Cantik service.

The findings also show that Service Ease of Use has a positive influence on citizen satisfaction, though at a lower level of significance ($p\text{-value} < 0.05$). This aligns with TAM theory, which posits that ease of use is a vital factor impacting users' comfort and acceptance of digital systems, a premise reaffirmed by Ahmad et al [10]. Supporting evidence from Anisa et al. indicates that most MSS application users consider the system intuitive, straightforward, and operable by individuals across different age groups [25]. Such usability characteristics bolster technology adoption, especially among younger populations who are naturally inclined toward digital platforms.

Additional support comes from the study by Kusumaratna and Suyanto, who emphasize that user-oriented design plays a critical role in the development of effective e-government platforms [29]. Systems that are easy to navigate, require minimal technical knowledge, and provide clear service flows tend to encourage higher levels of public engagement and comfort. In this regard, the simple and user-friendly interface of Si-Cantik reflects the Magelang City government's commitment to improving user experience and promoting broader adoption of digital administrative services.

Overall, these findings confirm that citizen satisfaction with e-government services is shaped by multiple factors, with Service Quality emerging as the most influential driver. While Information Awareness and Ease of Use contribute only modestly, and Service Usefulness offers a moderate impact, it is the consistently strong effect of Service Quality that ultimately determines how positively citizens perceive and evaluate digital public services. This underscores that efforts to enhance the reliability, responsiveness, and overall performance of e-government platforms will yield the greatest improvements in public satisfaction and trust.

Conclusion

This research concludes that citizen satisfaction with e-government services in Magelang City is primarily driven by two key factors: service quality and service usefulness, both of which show strong and highly significant effects on satisfaction. Service ease of use also contributes positively, although with a weaker level of significance, while information awareness does not demonstrate a meaningful influence on citizen satisfaction. These findings confirm that well-designed, reliable, and functionally valuable digital public services remain essential for enhancing user experiences and strengthening public trust in e-government systems. The study contributes to the advancement of digital governance research by emphasizing the dominant role of service quality as the most critical element in shaping public satisfaction.

For future studies, researchers are encouraged to investigate additional variables such as digital trust, perceived security, or user engagement to enrich the explanatory power of the model. It is also recommended to apply broader comparative approaches across different regions or service types to capture variations in citizen satisfaction more comprehensively. Lastly, longitudinal designs may help observe how public perceptions and satisfaction evolve alongside technological improvements and policy changes.

Acknowledgement

This study would not have been possible without the support of various parties who have made significant contributions. We extend our deepest gratitude to the Institute for Research and Community Service (LPPM) of Tidar University, which has provided essential facilities and resources that greatly supported the research process. We also extend our sincere thanks to all research participants who generously donated their time and shared valuable insights, enabling us to obtain relevant and meaningful findings. The authors would also like to express their gratitude to the reviewers and proofreaders, and the team of students who assisted with the survey activities. Without their contributions, this research would not have been possible.

References

1. K. Schedler and I. Proeller, *New Public Management*. UTB, 2002.

2. N. Flynn, *Public Sector Management*. SAGE Publications, 2012.
3. I. Greener, *Public Management: A Critical Text*. Palgrave Macmillan, 2012.
4. J. Wei, *Public Administration Reform in the Digital Era*. Oxford University Press, 2014.
5. H. Ting et al., "A review of public sector reform and its impact on citizen satisfaction," *International Journal of Public Administration*, vol. 43, no. 5, pp. 411–425, 2020.
6. J. Thomassen et al., "The relationship between public service performance and citizen satisfaction," *Public Administration Review*, vol. 74, no. 3, pp. 295–304, 2014.
7. M. Dugget, "The Citizen's Charter in the UK," *Public Administration Review*, vol. 58, no. 4, pp. 345–352, 1998.
8. T. Fyfe, "The UK Citizen's Charter: A Public Management Revolution," *Australian Journal of Public Administration*, vol. 52, no. 2, pp. 218–225, 1993.
9. S. Van de Walle, *The History and Future of Public Service Charters*. Routledge, 2018.
10. M. Ahmad, R. Hamid, and A. Wahab, "The impact of e-services on transaction patterns and citizen satisfaction," *Journal of Public Sector Innovation*, vol. 5, no. 2, pp. 112–125, 2020.
11. T. Oliveira et al., "Extending the technology acceptance model to understand the use of information technology in organizations," *Journal of Information Technology*, vol. 29, no. 3, pp. 245–257, 2014.
12. A. Alkrajji and N. Ameen, "Citizen perception and evaluation of e-government services," *Government Information Quarterly*, vol. 38, no. 3, 2021.
13. A. Parasuraman, V. Zeithaml, and L. Berry, "SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality," *Journal of Retailing*, vol. 64, no. 1, pp. 12–40, 1988.
14. L. Huang and P. Bwoma, "An overview of critical issues in e-government," *Administration & Society*, vol. 35, no. 1, pp. 3–23, 2003.
15. Z. Zubir and H. A. Latip, "The role of ICT coordination and social pressure on e-government adoption," *International Journal of Electronic Governance*, vol. 14, no. 3, pp. 245–263, 2022.
16. N. Rana, "Validation of the Extended Decomposed Theory of Planned Behaviour in e-government context," *International Journal of Electronic Government Research*, vol. 11, no. 2, 2015.
17. F. Davis, "Perceived usefulness, perceived ease of use, and user acceptance of information technology," *MIS Quarterly*, vol. 13, no. 3, pp. 319–340, 1989.
18. A. Bhattacharjee, "Acceptance of e-commerce services: The case of electronic brokerages," *IEEE Transactions on Systems, Man and Cybernetics*, vol. 30, no. 4, pp. 411–420, 2000.
19. S. Ozkan and I. Kanat, "E-government adoption model based on the theory of planned behavior," *Government Information Quarterly*, vol. 28, no. 4, pp. 503–513, 2011.
20. A. Rahman, D. Sari, and F. Wajidi, "Analisis penerimaan aplikasi M-Paspor dengan TAM," *Jurnal Kebijakan dan Administrasi Publik*, vol. 27, no. 1, pp. 77–92, 2023.
21. R. Hussein et al., "The role of organizational factors in e-government systems success," *Electronic Journal of Information Systems in Developing Countries*, 2007.
22. A. Alawneh, H. Al-Refai, and K. Batiha, "Measuring user satisfaction from e-government services," *Government Information Quarterly*, vol. 30, no. 3, pp. 277–288, 2013.
23. H. Susanto, E. Seprianti, and R. Friansyah, "Transformasi Digital Pelayanan Publik: Studi Kasus Si-Cantik," *Jurnal Ilmu Pemerintahan*, vol. 10, no. 1, pp. 55–70, 2022.
24. L. Dharshinni, "Tantangan implementasi aplikasi Si-Cantik," *Prosiding Seminar Nasional Administrasi Publik*, 2021.
25. R. Anisa et al., "Evaluasi kepuasan pengguna aplikasi MSS," *Jurnal Governance dan Kebijakan Publik*, vol. 15, no. 1, pp. 45–60, 2024.
26. R. Ariandi et al., "Segmentasi kepuasan layanan e-government menggunakan K-Means," *Jurnal Sistem Informasi dan Teknologi*, vol. 12, no. 2, pp. 88–102, 2024.
27. D. Sari, S. Lampasa, and E. Nasruddin, "Implementasi aplikasi Si-Cantik untuk pelayanan perizinan," *Jurnal Administrasi Publik*, vol. 19, no. 2, pp. 134–150, 2023.
28. W. Rachmini et al., *Kendala Sosialisasi dan Kualitas SDM dalam Implementasi Si-Cantik*, Laporan Penelitian, Universitas Tidar, 2024.
29. H. Kusumaratna and B. Suyanto, "Kualitas layanan e-government sebagai pilar kepercayaan publik," *Jurnal Pelayanan Masyarakat*, vol. 28, no. 1, pp. 22–35, 2024.
30. J. Hair, G. Hult, C. Ringle, and M. Sarstedt, *A Primer on Partial Least Squares (PLS-SEM)*, 2nd ed., SAGE, 2017.
31. I. Ghazali, *Structural Equation Modeling: Metode Alternatif dengan PLS*, 4th ed. Semarang: Badan Penerbit UNDIP, 2015.