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FOSTERING TRUST THROUGH BYTES: UNRAVELLING THE IMPACT OF E-GOVERNMENT ON PUBLIC TRUST IN INDONESIAN LOCAL GOVERNMENT

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ABSTRACT

Aim/Purpose	This study aims to investigate the influence of e-government public services on public trust at the local government level, addressing the pressing need to understand the factors shaping citizen perceptions and trust in government institutions.
Background	With the proliferation of e-government initiatives worldwide, governments are increasingly turning to digital solutions to enhance public service delivery and promote transparency. However, despite the potential benefits, there remains a gap in understanding how these initiatives impact public trust in government institutions, particularly at the local level. This study seeks to address this gap by

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	examining the relationship between e-government service quality, individual perceptions, and public trust, providing valuable insights into the complexities of citizen-government interactions in the digital age.
Methodology	Employing a quantitative approach, this study utilises surveys distributed to users of e-government services in one of the regencies in Indonesia. The sample consists of 278 individuals. Data analysis is conducted using Partial Least Squares Structural Equation Modelling, allowing for the exploration of relationships among variables and their influence on public trust.
Contribution	This study provides insights into the factors influencing public trust in e-government services at the local government level, offering a nuanced understanding of the relationship between service quality, individual perceptions, and public trust.
Findings	This study emphasises information quality and service quality in e-government-based public services as crucial determinants of individual perception in rural areas. Interestingly, system quality in e-government services has no influence on individual perception. In the individual perception, perceived security and privacy emerge as the strongest antecedent of public trust, highlighting the need to guarantee secure and private services for citizens in rural areas. These findings emphasise the importance of prioritising high-quality information, excellent service delivery, and robust security measures to foster and sustain public trust in e-government services.
Recommendations for Practitioners	Practitioners must prioritise enhancing the quality of e-government services due to their significant impact on individual perception, leading to higher public trust. Government agencies must ensure reliability, responsiveness, and the effective fulfilment of user needs. Additionally, upholding high standards of information quality in e-government services by delivering accurate, relevant, and timely information remains crucial. Strengthening security measures through robust protocols such as data encryption and secure authentication becomes essential for protecting user data. With that in mind, the authors believe that public trust in government would escalate.
Recommendations for Researchers	Researchers could investigate the relation between system quality in e-government services and individual perception in different rural settings. Longitudinal studies could also elucidate how evolving service quality, information quality, and security measures impact user satisfaction and trust over time. Comparative studies across regions or countries can reveal cultural and contextual differences in individual perceptions, identifying both universal principles and region-specific strategies for e-government platforms. Analysing user behaviour and preferences across various demographic groups can inform targeted interventions. Furthermore, examining the potential of emerging technologies such as blockchain or artificial intelligence in enhancing e-government service delivery, security, and user engagement remains an interesting topic.
Impact on Society	This study's findings have significant implications for fostering public trust in government institutions, ultimately strengthening democracy and citizen-government relations. By understanding how e-government initiatives influence public trust, policymakers can make informed decisions to improve service delivery, enhance citizen engagement, and promote transparency, thus contributing to more resilient and accountable governance structures.

Future Research	Future research could opt for longitudinal studies to evaluate the long-term effects of enhancements in service quality, information quality, and security. Cross-cultural investigations can uncover universal principles and contextual differences in user experiences, supporting global e-government strategies in rural areas. Future research could also improve the research model by adding more variables, such as risk aversion or fear of job loss, to gauge individual perceptions.
Keywords	e-government, public trust, service quality, information quality, citizen perceptions, local government, Indonesia

INTRODUCTION

In today's digital era, where e-government initiatives strive to streamline public services and promote governmental transparency, the concept of public trust assumes paramount importance. Public trust acts as the bedrock of societal confidence in government, setting expectations for public institutions to prioritize the common good (Fauzi et al., 2022; Kitt et al., 2021; Li & Shang, 2023; Twizeyimana & Andersson, 2019). As governments endeavour to navigate the complexities of the modern world, the principles of good governance – responsiveness, accountability, and transparency – become paramount (Beshi & Kaur, 2020). Effectively conveying these principles to all segments of society, especially marginalised groups, becomes not just a governmental obligation but a vital step in fostering inclusive participation and upholding the democratic fabric of our communities (Hartanto et al., 2021; Weber et al., 2023).

High public trust plays a crucial role in enabling a democratic society to function smoothly (Huber & Wicki, 2021; Saldanha et al., 2022). Previous studies have emphasised how public trust serves as the foundation for effective governance, fostering collaboration between citizens and the government (Kitt et al., 2021; Li & Shang, 2023). When the public has high levels of trust, they are more likely to comply with regulations, support policies, and participate in public affairs (Alawneh et al., 2013; Parent et al., 2005; Twizeyimana & Andersson, 2019). As a result, elevated public trust strengthens the bond between citizens and the government, enhancing democratic processes within society and promoting transparency, accountability, and citizen engagement.

Amidst a global trend of declining public trust, electronic government (e-government) is increasingly seen as a potential remedy, particularly in advanced countries. Li and Shang (2023) argue that improving public trust through e-government initiatives is vital for nurturing a resilient public sector. This idea is supported by research conducted in several countries, including Jordan, Nigeria, and Pakistan, which has demonstrated that implementing e-government practices positively impacts public trust (Abdulkareem & Mohd Ramli, 2022; Jameel et al., 2019; Nawafleh, 2020). The crux lies in e-government's capacity to facilitate open interaction between citizens and government entities (Janssen et al., 2018).

In practice, public service represents not only a duty of the government but also a vital element in cultivating public trust by leveraging e-government. Li and Shang (2023) emphasise the importance of public service as a standard function for governments seeking to bolster public confidence. Additionally, Kim et al. (2019) highlight the effectiveness of well-planned and implemented public services, especially those utilising information technology (IT) platforms, in enhancing public trust. Saifullah et al. (2019) further assert that public services rooted in e-government principles effectively address issues of mismanagement and fraud. These findings, supported by Moreno-Enguix et al. (2019), illustrate how e-government enhances the efficiency of public service procedures.

In Indonesia, the government faces three pressing issues: *globalization, national unity*, and *public trust*, with a specific focus on the challenge of enhancing public confidence (Fauzi et al., 2022). At the same time, the Indonesian government is actively promoting the adoption of e-government-based

public services to strengthen public trust, as evidenced by Indonesia's rise in the global rankings by 11 spots to 77th place in 2022 (Ministry of Administrative Reform and Bureaucratic Reform, 2022). However, despite the increasing availability of e-government-based public services worldwide, numerous obstacles persist, particularly in rural areas (Sihotang et al., 2023; Sterrenberg & L'Espoir Decosta, 2023). Factors such as social influence, infrastructure conditions, information and communication technology (ICT) capabilities, financial constraints, leadership, compatibility, and others continue to impede the provision of e-government-based public services in rural areas across the globe (Sihotang et al., 2023).

The Indonesian government responds to the digital shift by implementing the Electronic-Based Government System (SPBE) as part of its e-government strategy. SPBE aims to streamline services by integrating central and regional agencies within a unified governance and management framework. Monitoring and evaluation, overseen by the Ministry of Administrative Reform and Bureaucratic Reform (KEMENPAN-RB) and the National SPBE Coordination Team, assess SPBE's maturity levels through technical capabilities and processes, utilizing self-assessment and agency documentation.

In Regency X, one of the local/district areas in Sumatra, e-government implementation has ramped up across public services, resulting in consistently high scores over three years. Over the last three years, assessors have regularly reviewed electronic-based public services in Regency X, consistently awarding high scores. In 2021, the SPBE Index reached 1.78, surpassing the target of 2.6, with electronic-based public services achieving a score of 2.67 (Good). Subsequently, this dimension has continued to progress, achieving a score of 3.00 in 2023. These results underline the commitment of the Regency X government to delivering electronic-based public services to its residents, demonstrating a sincere dedication to e-government implementation. The Regency X government showcases the quality of public services through the yearly Indeks Kepuasan Masyarakat/Community Satisfaction Index (CSI) – of which the scored peaked in 2022 with 89.1% satisfaction.

Nevertheless, studies examining the impact of public services on public trust, especially at the district or city level, are scarce. Existing satisfaction indices fail to differentiate between electronically based and traditional public services, and prior research has only partially addressed this issue. Most studies have mainly focused on how trust influences the usage of public services rather than how the usage of public services influences public trust. Albeit Li and Shang (2023) explore the influence of e-government services on public trust, they overlook internal organizational aspects in delivering these services. Additionally, research on e-government service provision at the local government level is limited (Im et al., 2014; Kurfalı et al., 2017; Parent et al., 2005; Pérez-Morote et al., 2020; Reddick & Turner, 2012; Salsabila et al., 2022; Smith, 2010; Susanto & Aljoza, 2015; Trkman et al., 2023). These gaps highlight the necessity for comprehensive research that examines both user and provider perspectives to gain a better understanding of the complex relationship between e-government services and public trust. This study thus postulates the following research question:

What factors influence e-government-based public services in enhancing public trust in a local government?

Consequently, the authors structure this study as follows. The next section explores the theoretical background supporting this study. This is followed by an explanation of the study methodology used, and the study's findings, including their implications and limitations. Finally, the last section suggests areas for future research.

THEORETICAL BACKGROUND

ELECTRONIC GOVERNMENT (E-GOVERNMENT)

In digital governance, the use of e-government services has become a significant force in reshaping the interaction between citizens and local authorities (Alsarraf et al., 2023; Faroqi et al., 2020; Hujran et al., 2022). This shift is particularly pronounced in Indonesia, where the decentralisation of governance has heightened the importance of local governments. It is crucial to comprehend the impact of

e-government services on public trust. Norris (2001) and Moon (2002) highlight the role of digital technology in bolstering civic engagement and accountability. This theory aims to unravel the intricate link between e-government services and public trust in Indonesian local governments. Additionally, integrating Fukuyama's (2004) seminal work on trust and governance, which underscores the significance of trust in effective governance, the goal is to elucidate how e-government initiatives influence the formation of trust and legitimacy in governmental institutions.

According to this theory, the adoption of e-government services acts as a catalyst for enhancing public trust in Indonesian local governments through various mechanisms. First, drawing from social capital theory (Coleman, 1988; Li & Shang, 2023; Putnam, 2000), e-government is expected to promote transparency and facilitate access to information, thereby mitigating power imbalances and encouraging community participation. Second, by referencing procedural justice and institutional trust (Christine Huang et al., 2020; Kao & Sapp, 2022; Tyler, 2006), it is posited that the responsiveness and efficiency of e-government-based public services contribute to positive perceptions of government legitimacy and procedural fairness. Last, by leveraging digital citizenship concepts (Chadwick, 2006; Epstein, 2022; Lips, 2019), the theory explores how e-government platforms serve as channels for citizen-state interaction, reshaping governance dynamics and fostering a sense of ownership and civic responsibility among the populace.

The widespread adoption of e-government services is evident across various nations, spanning from India to Ecuador (Cisneros et al., 2021; Luján-Mora et al., 2014; Paul & Das, 2020; Sanchez-Gordon et al., 2020). E-government not only enhances efficiency and convenience for citizens by enabling online access to government services and information but also promotes transparency and accountability in governance (Baeuo et al., 2016; Theocharis & Tsihrintzis, 2023; Wang & Hou, 2010). With e-government, time is saved, physical interactions with government agencies are minimized, and democratic processes are enriched through citizen engagement and participation in decision-making. Moreover, e-government holds the potential to spur economic growth by facilitating e-commerce platforms, nurturing entrepreneurship, and attracting investment.

Social capital theory

In e-government, social capital – grounded in the interconnected networks of relationships among individuals – assumes an increasingly pivotal role in cultivating trust and collaboration between citizens and government institutions. This theory posits that resilient social networks and shared norms within a community can drive heightened civic participation and governmental openness, thereby enhancing the efficacy of digital public services (Coleman, 1988; Putnam, 2000; Saz-Gil et al., 2021). Efforts aimed at promoting transparency and accountability in e-government also hold significant potential in fostering social capital by stimulating citizen engagement and feedback – ultimately fostering greater trust in governmental entities (Carter & Bélanger, 2005; Naranjo-Zolotov et al., 2019).

Furthermore, studies suggest that ICTs can mediate trust relationships within communities to amplify social capital, which, in turn, can augment government performance, particularly evident in situations such as responses to the COVID-19 pandemic (Grimsley et al., 2003; Koddebusch et al., 2023) Social capital not only cultivates political awareness and collaboration but also encourages increased social cooperation, thereby further enhancing governmental efficacy (Posner & Boix, 2016; Tavits, 2006; Van Wart et al., 2023; Wu, 2021). This interconnectedness between social capital and e-government underscores the vital necessity of nurturing trust and cooperation within communities to fully realise the potential of digital governance initiatives.

Service quality theory

Service quality theory, grounded in marketing and service management principles, highlights the significance of satisfying customer expectations during service delivery. Critical dimensions like reliability, responsiveness, assurance, empathy, and tangibles form the bedrock for assessing service quality from the customer's viewpoint (Parasuraman et al., 1985; Santa et al., 2019). In e-government, these

principles translate into the imperative for digital platforms to provide prompt responsiveness, transparent communication, user-friendly interfaces, and personalised interactions to maximise positive experiences for citizens (Aladwani & Palvia, 2002; Mohammadi, 2022). Such experiences not only instil trust in government services but also enhance the government's ability to effectively cater to public needs, thereby elevating overall public satisfaction and engagement.

Within the e-government sphere, trust emerges as a crucial determinant of government digital service adoption, aligning with service quality theory principles (Abdulkareem et al., 2022; Carter & Bélanger, 2005; Li & Shang, 2023). Furthermore, prior studies underscore the significance of transparency, citizen engagement, and technology acceptance in shaping perceptions of service quality in the e-government context (Abdulkareem et al., 2022; Abdulkareem & Mohd Ramli, 2022; Lee & Kwak, 2012). By integrating these diverse viewpoints, this theory offers a comprehensive framework for policymakers and practitioners to enhance service quality and foster public trust in e-government endeavours, guiding strategic actions in digital service provision.

Service quality theory further embeds various frameworks and models crucial for assessing and enhancing the quality of e-government services. The DeLone and McLean Information System Success Model (ISSM) elucidates pivotal factors like system quality, information quality, and user satisfaction (DeLone & McLean, 1992, 2003, 2016), while the E-Government Service Quality (EGSQual) model incorporates dimensions such as efficiency, transparency, and citizen satisfaction (Carter & Bélanger, 2005; Parasuraman et al., 2005). Additionally, the Unified Theory of Acceptance and Use of Technology (UTAUT) and Task-Technology Fit (TTF) theories provide insights into technology acceptance and usage by users, stressing factors like performance expectations, effort expectations, and task-technology fit (Goodhue, 1995; Goodhue & Thompson, 1995; Venkatesh & Davis, 2000; Venkatesh et al., 2003, 2011). These models take a holistic approach to evaluate and enhance e-government public services, ensuring they meet citizen needs and expectations, thus promoting greater satisfaction and engagement with government digital initiatives.

Self-perception theory

In the domain of e-government services and public trust in Indonesian local governments, self-perception theory sheds light on how individuals shape attitudes and beliefs through their interactions with digital platforms. Stemming from social psychology, this theory suggests that individuals derive attitudes and beliefs from observing their own behaviour (Bem, 1972; Mohanty et al., 2021; Mou et al., 2017; Rogers, 1995, 2003). When applied to e-government services, it implies that people form perceptions of trust, responsiveness, and government effectiveness based on their experiences with digital platforms. Positive interactions, like user-friendly interfaces and efficient service delivery, can foster favourable attitudes and trust toward the government, while negative experiences may breed scepticism and distrust (Bimber, 2001; Pérez-Morote et al., 2020). Empirical research grounded in self-perception theory can elucidate how interactions between citizens and the government influence trust dynamics in Indonesian local governments. By examining citizens' attitudes, behaviours, and experiences with e-government services, researchers can pinpoint key factors shaping trust perceptions (Abdulkareem et al., 2022; Bimber, 2001; Hartanto et al., 2021; Mensah, 2018; Parent et al., 2005; Pérez-Morote et al., 2020). Surveys, interviews, and usability studies can provide valuable insights into the impact of user experience, satisfaction, and outcomes on public trust in e-government initiatives. Moreover, Moon (2002) and Norris (2001) offer profound insights into the broader context of e-government adoption and its implications for citizen engagement and trust.

By incorporating self-perception theory into the analysis of the impact of e-government services on public trust, policymakers, and practitioners can obtain actionable insights into strategies to bolster citizen trust and enhance governance outcomes in Indonesian local governments (Bem, 1972; Bimber, 2001; Pérez-Morote et al., 2020). This approach can furnish a framework for evaluating the stages of e-government development and their effects on public perceptions, providing policymakers with a comprehensive overview to bolster public trust through digital governance initiatives. Through

this integrated approach, policymakers can devise targeted strategies to address trust deficits and enhance citizen engagement, thereby fostering greater transparency, accountability, and public trust in Indonesian local governments' e-governance initiatives.

Institutional trust

In this study, the focus lies on investigating the public's trust in institutions, known as Institutional Trust. Institutional trust, a fundamental aspect of public trust, embodies citizens' confidence in governmental institutions' effectiveness, integrity, and legitimacy within society (Colquitt et al., 2007; Hussein et al., 2009; Smith, 2010; Tan & Sutherland, 2004). It reflects citizens' evaluations of how well governmental bodies operate transparently and accountably in serving the public interest (Hetherington, 1998; Tanny, 2023). This trust hinges on the belief that officials and governmental bodies will uphold ethical standards, adhere to laws and regulations, and prioritize citizens' well-being and rights in decision-making processes (Levi & Stoker, 2000; Li & Shang, 2023). Particularly in the context of e-government-based public service provision, institutional trust is integral to public trust, encompassing society's expectations regarding the reliability, responsiveness, and fairness of digital platforms and processes managed by governmental entities (Maulana et al., 2022; Moon, 2002). Therefore, institutional trust serves as an indicator of societal trust in government e-government initiatives that adhere to democratic regulatory standards and governance.

In exploring how e-government public service provision influences public trust, understanding the dynamics of institutional trust is crucial for evaluating the effectiveness and impact of digital governance initiatives on the citizen-state relationship (Bannister & Connolly, 2011; Beshi & Kaur, 2020). High levels of institutional trust can yield positive outcomes, such as increased public satisfaction, enhanced community participation, and greater government legitimacy (Boulianne, 2019; Warren, 1992). Conversely, low levels of trust can hinder the adoption and utilization of e-government public services, hampering efforts to enhance administrative efficiency, promote transparency, and strengthen democratic accountability (Fukuyama, 1996, 2004; Zulkifli & Mokhtar, 2020). Investigating how e-government initiatives shape institutional trust becomes crucial for informing policy recommendations and governance strategies aimed at fostering a resilient, inclusive, and trustworthy governance system in the digital age.

Public services and public trust

E-government, a global initiative, seeks to enhance government governance and transparency, thereby fostering public trust (Gil-García & Pardo, 2005; Li & Shang, 2023; Mansoor, 2021). Its effectiveness lies in instilling societal confidence in governance and shaping citizens' usage intentions (Hooda et al., 2022; Santa et al., 2019; Trkman et al., 2023). The level of trust in e-government closely aligns with trust in the government, creating a mutually beneficial relationship (Mansoor, 2021; Smith, 2010). Transparency emerges as a crucial factor influencing citizen satisfaction and trust in government, with online services, transparency, and satisfaction showing a positive correlation (Kurfalı et al., 2017; Li & Shang, 2023; Saldanha et al., 2022). Cultural factors also play a pivotal role in how transparency affects trust, as evidenced in various regions such as Korea, Jordan, North America, and the Netherlands (Alawneh et al., 2013; Im et al., 2014; Li & Shang, 2023; Parent et al., 2005; Saldanha et al., 2022; Susanto & Aljoza, 2015).

E-government ensures flexibility and efficiency in government operations, replacing traditional procedures with streamlined approaches (Li & Shang, 2023; Malodia et al., 2021; Santa et al., 2019). For instance, processes like taxation and procurement in Chile (Smith, 2010), disability services in Australia (Sterrenberg & L'Espoir Decosta, 2023), and digital services such as procurement, education, and immigrant naturalization in Brazil (Saldanha et al., 2022) demonstrate the positive impact of e-government. E-government implementation also enhances the quality of government services and empowers citizens by fostering the perception that they can influence governance (Kitt et al., 2021; Santa et al., 2019). However, it is crucial to consider specific contexts, as the relationship between e-government and trust in government is contextual (Stroppe, 2023).

Alsarraf et al. (2023) and Nulhusna et al. (2017) discovered that the quality of e-government services significantly affects trust in government, with Alsarraf et al. (2023) highlighting the mediating role of perceived government effort. Nulhusna et al. (2017) also stress the importance of information quality and systems in fostering trust. These studies collectively underscore the pivotal role of e-government service quality, perceived efforts, and trust in building public trust. Thus, to bolster the public sector, enhancing trust through e-government becomes imperative (T. Chen et al., 2023; Weber et al., 2023). Nawafleh (2020) illustrates how e-government usage in Jordan can influence public trust. Similarly, studies by Abdulkareem and Mohd Ramli (2022) in Nigeria and Jameel et al. (2019) in Pakistan corroborate this notion, as e-government creates opportunities for open interaction between society and government (Janssen et al., 2018).

E-Government in rural areas: Challenges, benefits, and potential impact

The implementation of e-government-based public services in rural areas faces unique challenges compared to urban settings. These challenges encompass inadequate ICT infrastructure, limited internet coverage, and insufficient financial resources (Al Mudawi et al., 2020; Meiyanti et al., 2018; Salamat, 2020; Sharma et al., 2021). Data security and privacy concerns also present substantial barriers, compounded by corruption, cronyism within senior management, and entrenched social norms (Al Mudawi et al., 2020; Pangaribuan, 2019). For instance, Sub-Saharan African governments are currently struggling with the lack of ICT infrastructure and low human resources in their attempts to adopt e-government (Akgül, 2024; Nkohkwo & Islam, 2013). In other developing countries, challenges extend to complex managerial issues, budget constraints, and the lack of robust laws to support digital transformation (Meiyanti et al., 2018; Sharma et al., 2021; Sihotang et al., 2023).

Despite these obstacles, however, e-government can profoundly benefit rural communities by facilitating easier access to public services, reducing travel time, and enhancing service efficiency (Freeman & Park, 2015; Frohlich et al., 2021; Jaeger & Bertot, 2010). Previous studies highlight how e-government initiatives bridge service delivery gaps in rural areas and foster social and economic development (Basu, 2004; Doran et al., 2023; Utama, 2020). E-government bolstered by good governance practices – such as transparency, accountability, and responsiveness – has also yielded an increase in public trust, as evidenced in Ethiopia (Beshi & Kaur, 2020). The most notable advantage of e-government lies in its significant economic benefits (Glyptis et al., 2020).

E-government drives economic growth by enhancing public service efficiency, reducing administrative costs, and fostering a conducive business environment (El Amrani & Louhmadi, 2019). Additionally, it stimulates the digital economy by promoting e-commerce, improving supply chain efficiencies, and supporting SMEs through easier access to information and resources (Arshad et al., 2023; Y. N. Chen et al., 2006; Sharma et al., 2021). In rural Bangladesh, e-government services have reduced service delivery costs and increased convenience for rural dwellers (Hoque & Kabir, 2024). E-government's impact varies, benefiting developing countries more significantly, while developed nations gain from e-business (Srivastava & Panigrahi, 2016). Countries like Estonia and Ukraine demonstrate how comprehensive e-government strategies yield substantial economic benefits and improved public service delivery (Kalvet, 2012; Kotenok et al., 2020). Previous studies emphasise that better economic conditions foster higher public trust in government, with good economic performance linked to increased trust in China and the role of public trust in economic growth (Kiš, 2018; Yang et al., 2021). Public policies enhancing freedom, reducing inequality, and raising educational levels contribute to prosperity and trust by strengthening the rule of law and interpersonal understanding (Knack & Zak, 2003; Li & Shang, 2023). Thus, e-government's economic benefits can lead to increased public trust in government.

Previous Studies

Between November 25 and 27, 2023, the authors systematically reviewed literature by accessing various databases, including IEEE Xplore, ACM Digital Library, ScienceDirect, Emerald Insight, and Scopus. The key to success lies in choosing effective keywords aligned with this study's questions,

facilitating the retrieval of relevant literature from these digital sources. Keywords like "e-government," "public service," and "citizen trust" were instrumental in filtering the review outcomes. By applying both inclusive and exclusive criteria, the authors identified 15 pieces of literature to underpin this study (see Table 1).

Table 1. Previous studies

Author	Context (location)	Independent variable(s)	Dependent variable(s)	Finding
Nulhusna et al. (2017)	E-government services (Indonesia)	system quality, information quality, service quality, **dispositional trust**	**institutional trust, interpersonal trust,** continual usage intention, EWOM intention	This study emphasises the importance of enhancing system and information quality in e-government to cultivate trust, with service quality demonstrating minimal impact. Institutional trust influences user behaviour, underscoring the necessity for further investigation into satisfaction factors, particularly in large countries like Indonesia.
Li and Shang (2023)	Government website (China)	Information seeking, Online transaction, Citizen engagement	Perception of government integrity, Perception of government performance, External political efficacy, **Trust in Government**	This study finds that the use of e-government by citizens indirectly restores trust in the government by influencing their assessments of government integrity, performance, and responsiveness. However, the mediating effect of citizens' evaluations of the government on the relationship between e-government use and public trust is diminished by citizens' expectations of their government.
Porumbescu (2016)	E-government website and government social media (Seoul, South Korea)	Evaluation of Quality of Life	Satisfaction, **Trust in Government**	This study discovers a positive relationship between the use of public sector social media accounts and citizen satisfaction, along with perceptions of trust in the government. Based on the concept of psychological distance, interpretations suggest that e-government channels delivering less detailed information, such as social media, may be more effective in enhancing the relationship between citizens and the government compared to channels delivering more detailed information, such as e-government websites.
Mansoor (2021)	E-government platform in social media (Pakistan)	Perceived Responsiveness, Perceived Accountability, Perceived Transparency	Response of Government on COVID-19, **Trust in Government**	This study concludes the existence of a complex relationship between good governance practices, public trust, Governance Readiness and Capability (PGRC), and Government Quality of Service (GQS) interacting, with an emphasis on government ICT usage during the COVID-19 pandemic, particularly in utilizing social media for broader community communication.
Santa et al. (2019)	Government to Business services (Saudi Arabia)	**Trust**	Quality of System, Quality of Service, Quality of Information, Operational Effectiveness, User Satisfaction	The study finds that operational effectiveness and information quality are the most important drivers of user satisfaction. Unlike previous studies, the results of this study show a negative relationship between trust in online services and service quality.
Aljukhadar et al. (2022)	E-government website services (United States of America)	e-government Service Quality	Interactivity & Personalization, Information Quality, Quality of Assistance, Ease of Use, Website Functionality, **Privacy & Security**, Aesthetics	The findings of the research indicate that the EGSQUAL scale has excellent psychometric properties and that the multi-dimensional latent construct of e-government service quality can be well captured by seven dimensions: (1) interactivity and personalization, (2) information quality, (3) assistance quality, (4) ease of use, (5) website functionality, (6) privacy and security, and (7) aesthetics.

Author	Context (location)	Independent variable(s)	Dependent variable(s)	Finding
Salsabila et al. (2022)	E-government based permit services (Indonesia)	Efficiency, **Trust,** Reliability, Citizen Support, Ease of Use	Perceived Usefulness, Satisfaction	This study shows that perceived usefulness, efficiency, and citizen support have proven to influence citizen satisfaction, while perceived ease of use has proven to influence perceived usefulness. Based on path coefficient results, efficiency has the most significant value. Therefore, improvements should be focused on enhancing efficiency.
Mensah (2018)	Public services-based e-government (China)	Trust in Internet**, Trust in Government**	Perceived Usefulness, Perceived Ease of Use, Perceived Transparency, Intention to use e-government Services, Actual Use of e-government services	Trust in the internet affects intention and perceived ease of use in e-government services, while trust in the government influences perceived usefulness and actual use, and transparency predicts perceived usefulness, intention to use, and actual use in e-government services.
Durachman et al. (2020)	Public services-based e-government (Indonesia)	**Trust,** Reliability, Efficiency, Citizen Support	E-government Service Quality, Perceived Effectiveness	The results of the study are efficiency, reliability, trust, and citizen support significantly influence the quality of E-government services. There is a relationship between the quality of E-government services and perceived effectiveness.
Alawneh et al. (2013)	E-government services (Jordan)	Security & Privacy**, Trust,** Accessibility, Service Quality, Awareness	Satisfaction	These findings highlight the usefulness and importance of uncovering the main drivers of electronic satisfaction in order to provide feedback in a series of recommendations that will enable the creation of e-government portals that align with the needs, desires, and expectations of citizens.
Hooda et al. (2022)	E-government services (Multiple Countries)	Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions	Intention to use e-government, **Trust in e-government**, e-government use behaviour	The results of the study show that trust plays a central role in users' intention to use and leverage e-government systems. Specifically, in the context of e-government, trust is influenced by performance expectations, effort expectations, social influence, and facilitating conditions; it has a direct effect on system usage; and an indirect effect on system usage through behavioural intention.
Trkman et al. (2023)	Tracing (Slovenia and Germany)	Performance Expectancy, Effort Expectancy, Social Influence, Trust in Technology, **Trust in Government**	Intention to use e-government, Privacy Concerns, Self-reported use	The main findings are that in the tracing application context, the universal UTAUT predictors remain significant, privacy concerns directly affect usage intentions and trust in the government and technology significantly impact privacy concerns.
Pérez-Morote et al. (2020)	E-government services (Multiple Countries)	Supply-side e-government evaluations, **citizens' trust governments**, digital divide	Citizens' use of e-government services	This study confirms that citizens' use of e-government services is influenced by evaluations of e-government from the supply side, citizens' trust in the government, and digital divides related to income and education.
Jameel et al. (2019)	E-government services (Pakistan)	e-government good governance	**Public trust**	This study confirms that good governance is causally related to public trust, while e-government acts as a mediator in this relationship.
Hartanto et al. (2021)	E-government services in social media (Indonesia)	Interactions with Government Officials, Perceived Government Response on Covid-19, Perceived E-Governance Effectiveness	Perceived Religious Value**, Overall Public trust in Government**	This study finds a positive relationship between the research variables and supports the mediating role of religious values in enhancing public trust in the government through e-governance channels on social media, government responses to COVID-19, and perceptions of e-governance effectiveness, with policy implications for developing countries.

Previous studies on e-government and public trust adopt two main perspectives: (i) *public trust influencing e-government service provision* and (ii) *e-government services affecting public trust levels*. The first perspective views public trust as an independent variable that impacts the quality of government-delivered services. Previous studies have explored the first relationship, with Santa et al. (2019) showing that operational effectiveness and information quality significantly influence user satisfaction with public services in Saudi Arabia. Similarly, Mensah (2018) demonstrated that trust in government affects the perceived usefulness of e-government services in China. Durachman et al. (2020) and Salsabila et al. (2022) found that public trust impacts service quality and effectiveness in Indonesia. Trkman et al. (2023) noted that trust in government influences privacy concerns and the intention to use e-government services in Slovenia and Germany, while Pérez-Morote et al. (2020) confirmed the role of trust in e-government service use in the European Union countries.

Conversely, the second perspective considers public service provision as an independent variable shaping or strengthening public trust. This approach emphasises how government transparency, accountability, and service effectiveness influence perceptions of reliability and integrity. For instance, Nulhusna et al. (2017) highlighted the importance of improving the system and information quality in Indonesia to build public trust. Li and Shang (2023) observed that e-government use in China enhances public trust in government integrity and responsiveness. Porumbescu (2016) found that public sector social media use positively impacts trust in South Korea. Mansoor (2021) in Pakistan emphasised that perceptions of responsive and transparent e-government services boost public trust, supported by Aljukhadar et al. (2022) in the US, who linked service quality to increased trust in data security and privacy. Hooda et al. (2022), in a cross-country study, underscored the role of trust in users' intention to utilise e-government systems, influenced by performance expectations, effort expectations, social influence, and facilitating conditions. Finally, Jameel et al. (2019) in Pakistan demonstrated a causal relationship between good governance and public trust, mediated by e-government.

Research gap

Previous studies, however, exhibit notable gaps, particularly due to (i) *incomplete perspectives that overlook the quality of ICT support services and individual viewpoints*. Previous studies have often neglected the complexity of technology and individual dynamics, resulting in an inadequate comprehension of the societal and public service dimensions of e-government (Aljukhadar et al., 2022; Hartanto et al., 2021; Hooda et al., 2022; Jameel et al., 2019; Mansoor, 2021; Mensah, 2018; Santa et al., 2019). Additionally, those studies have mainly relied on (ii) *public trust as the primary antecedent for evaluating e-government service quality*, failing to capture the nuanced relationship between public trust and service quality (Alawneh et al., 2013; Durachman et al., 2020; Mensah, 2018; Pérez-Morote et al., 2020; Salsabila et al., 2022; Santa et al., 2019; Trkman et al., 2023). Studies predominantly emphasise (iii) *public/citizens/user perspectives, leaving internal organisational views underexplored*. Furthermore, (iv) *a geographical bias is evident*, with previous studies mainly focusing on urban areas or central governments, thus limiting the applicability of findings to diverse contexts, particularly in rural areas (Aljukhadar et al., 2022; Hartanto et al., 2021; Hooda et al., 2022; Jameel et al., 2019; Mansoor, 2021; Mensah, 2018; Santa et al., 2019).

Therefore, this study aims to address these gaps by adopting *comprehensive perspectives* that consider both *technological* and *individual viewpoints* while also *broadening the geographical scope* to ensure the relevance and applicability of findings across various contexts.

Theoretical Framework

This study proposes a theoretical framework to examine how e-government public services influence the development of public trust through individual perceptions. Based on the DeLone and McLean model (1992, 2003, 2016), the framework focuses on three main dimensions of e-government services: *information quality, system quality*, and *service quality*, forming the basis for assessing the excellence of e-government services. These dimensions include the accuracy, relevance, and completeness of

information, the efficiency and functionality of digital infrastructure, and the overall user experience in accessing and using e-government services, as highlighted by previous studies (Aljukhadar et al., 2022; Santa et al., 2019). By integrating four key variables related to individual perceptions, the framework encompasses satisfaction, reflecting users' contentment and fulfilment with e-government services, as well as effort expectancy, performance expectancy, and perceived privacy & security. These variables collectively contribute to the development of public trust, in line with previous research models (Hartanto et al., 2021; Hooda et al., 2022; Li & Shang, 2023; Porumbescu, 2016). Figure 1 illustrates the proposed theoretical framework in this study.

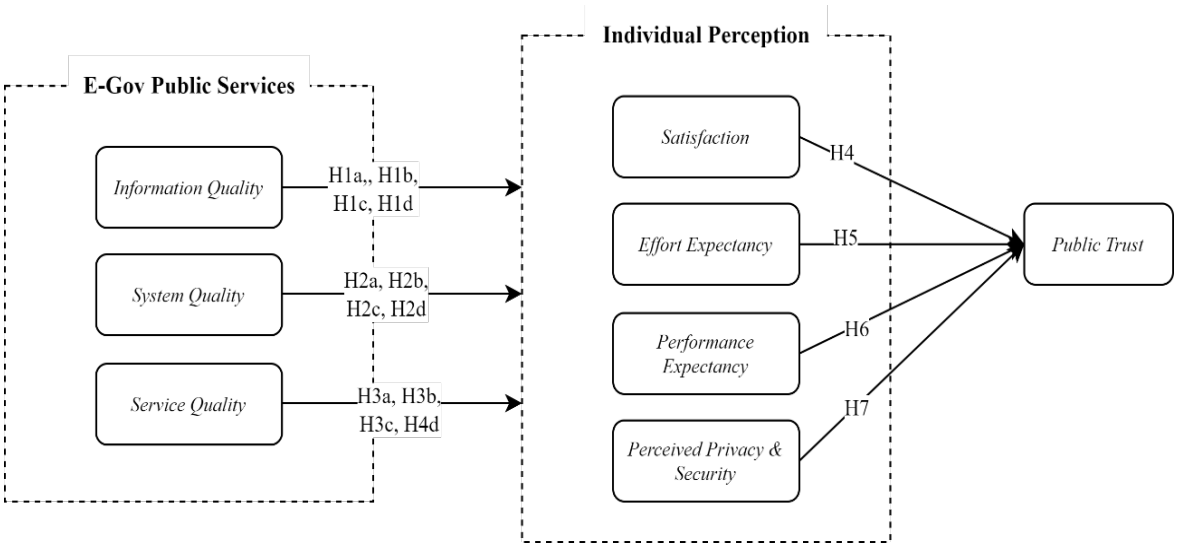

Figure 1. Theoretical framework

E-Government public services

Information Quality (IQ): IQ, including accuracy, relevance, completeness, and timeliness, plays a pivotal role in building and maintaining citizens' trust (DeLone & McLean, 2003, 2016; Urbach & Müller, 2012). Delivering high-quality information through digital platforms is essential as citizens rely on e-government services for accurate and up-to-date information, deficiencies which can undermine platform credibility (Aljukhadar et al., 2022; Santa et al., 2019). Santa et al. (2019) demonstrate the influence of information quality on user satisfaction, supported by findings from Sterrenberg and L'Espoir Decosta (2023) and Alawneh et al. (2013), forming hypotheses suggesting the positive impact of information quality on individual perception.

System Quality (SQ): SQ in the e-government environment covers efficiency, reliability, and functionality of the technological infrastructure supporting digital government services (DeLone & McLean, 2003, 2016; Urbach & Müller, 2012). The robustness of these systems directly influences individual experiences when interacting with e-government platforms (Li & Shang, 2023). Well-functioning and reliable systems ensure seamless and trustworthy user experiences, significantly contributing to public satisfaction and trust in the government's ability to provide effective services (Wirtz & Daiser, 2018; Zhao, 2010). Research confirms the influence of system quality on user satisfaction, as evidenced by Santa et al. (2019) and Sterrenberg and L'Espoir Decosta (2023), supported by Alawneh et al. (2013) findings, leading to hypotheses suggesting the positive influence of system quality on individual perception.

Service Quality (SEQ): SEQ in e-government evaluates the overall user experience, considering elements like responsiveness, accessibility, and ease of interaction with digital government services (DeLone & McLean, 2003, 2016; Urbach & Müller, 2012). In the digital era, citizens expect easily accessi-

ble and responsive government platforms (Aljukhadar et al., 2022; Santa et al., 2019). Therefore, service quality plays a crucial role in shaping public perceptions and trust (Smith, 2010). Positive experiences with service quality result in satisfaction and trust in the government's commitment to providing accessible services focused on meeting citizens' needs (Epstein, 2022). Studies from Santa et al. (2019), Sterrenberg and L'Espoir Decosta (2023), and Alawneh et al. (2013) lead to hypotheses indicating the impact of service quality on individual perception.

Thus, regarding e-government public services, this study posits the following hypotheses:

- Information Quality positively influences Satisfaction (H1a).
- Information Quality positively influences Effort Expectancy (H1b).
- Information Quality positively influences Performance Expectancy (H1c).
- Information Quality positively influences Perceived Security & Privacy (H1d).
- System Quality positively influences Satisfaction (H2a).
- System Quality positively influences Effort Expectancy (H2b).
- System Quality positively influences Performance Expectancy (H2c).
- System Quality positively influences Perceived Security & Privacy (H2d).
- Service Quality positively influences Satisfaction (H3a).
- Service Quality positively influences Effort Expectancy (H3b).
- Service Quality positively influences Performance Expectancy (H3c).
- Service Quality positively influences Perceived Security & Privacy (H3d).

Individual perception

User Satisfaction (SAT): SAT acts as a crucial measure for gauging the overall contentment and effectiveness perceived by users when engaging with e-government services (DeLone & McLean, 2003, 2016; Urbach & Müller, 2012). In digital governance, user satisfaction reflects the public's positive reception of the government's digital offerings (Alawneh et al., 2013; T. Chen et al., 2023; Reddick & Turner, 2012). High levels of user satisfaction are pivotal in fostering and upholding public confidence in the efficiency and user-friendliness of e-government platforms.

Effort Expectancy (EE): EE in e-government public services evaluates users' perceptions of the convenience and simplicity associated with utilising digital government platforms (Venkatesh & Davis, 2000; Venkatesh et al., 2003, 2012). Public perceptions of ease of use significantly influence their engagement levels with e-government services (Hooda et al., 2022). Low effort expectations reflect the belief that digital services can be easily navigated, positively shaping their overall attitudes and trust in the digital solutions provided by the government (Hooda et al., 2022; Kurfalı et al., 2017).

Performance Expectancy (PE): PE examines the anticipated benefits and outcomes that the public expects from e-government services (Venkatesh & Davis, 2000; Venkatesh et al., 2003, 2012). In the domain of digital governance, citizens anticipate deriving meaningful outcomes from interacting with government platforms (Hooda et al., 2022). Therefore, this factor becomes a determinant of citizens' confidence in the effectiveness and value of e-government services, which significantly influences their sustained engagement and enhances public trust (TRU) (Hooda et al., 2022; Kurfalı et al., 2017).

Perceived Privacy & Security (PVS): In e-government services, PVS evaluates users' trust in the security of their personal information during digital transactions (Alawneh et al., 2013; Aljukhadar et al., 2022). Public trust levels in e-government are closely linked to their perceptions of privacy and security measures implemented (Alawneh et al., 2013; Aljukhadar et al., 2022; Nookhao & Kiattisin, 2023; Trkman et al., 2023). Enhanced trust in privacy and security perceptions will bolster public confidence, fostering a sense of security and trust in digitally interacting with government platforms.

Therefore, the hypotheses arising from individual perceptions are:

- User Satisfaction positively influences public trust in e-government services (H4).
- Effort Expectancy positively influences public trust in e-government services (H5).
- Performance Expectancy positively influences Public Trust in e-government services (H6).
- Perceived Privacy & Security positively influence Public Trust in e-government services (H7).

METHODOLOGY

RESEARCH DESIGN

This study aims to investigate the influence of e-government public services on public trust, using a quantitative approach within the positivism paradigm with a case study design. The main goal is to assess the factors that contribute to enhancing public trust through the provision of e-government public services. Conducted in December 2023, this study involved users of e-government services in a quantitative phase, employing surveys to gauge public perceptions and levels of trust in e-government services. By employing questionnaires, this study systematically examined factors impacting public trust. Using Partial Least Squares Structural Equation Modelling (PLS-SEM) via SmartPLS 3.3, the authors explored relationships among variables and their influence on public trust.

SURVEY MEASUREMENT

This study focuses on individuals utilising e-government services offered by the Regency X Government, operating in a region with a population exceeding 500,000+ people. Based on the 2022 CSI Survey in Regency X, 678 individuals used e-government-based services during the survey period, forming the initial sample frame. To uphold methodological integrity, we apply the Slovin formula (See Equation 1), considering a 95% confidence level and a 5% margin of error (Tejada et al., 2012). This calculation results in a minimum sample size of 252 individuals from the population of 678 users.

$$n = \frac{N}{1+Ne^2} \qquad (1)$$

The primary data collection tool is a questionnaire distributed to all respondents via email and WhatsApp. Online surveying is preferred due to its ability to reach respondents dispersed throughout Regency X. Online surveys offer advantages such as accessibility to difficult-to-reach populations, cost efficiency, and time-saving benefits (Ferigato et al., 2022). Braekman et al. (2020) support this notion, highlighting the cost and time-saving benefits, enhanced flexibility, broader geographical coverage, and comprehensive responses facilitated by online surveys. As such, the authors developed the questionnaire in the Appendix. Each item is evaluated using a 1–5 Likert scale, where 1 indicates strong disagreement and 5 signifies strong agreement. This scale depicts the degree of agreement or disagreement respondents have towards the statements in the questionnaires.

To enhance clarity and avoid confusion, the authors instructed respondents to evaluate the most recent e-government services they accessed, providing examples of services offered by each agency. Several services were used as benchmarks, including *Licensing/Permit Services, Population Registration Services, Health Services, Complaint Services (Whistleblower), Procurement Services*, and *Public Information and Communication Services*. These services, recognised by the government of Regency X, constitute e-government-based services provided to the public.

To mitigate method bias, where respondents might offer socially acceptable rather than truthful answers, the authors emphasised the importance of honesty in the questionnaire instructions and assured respondents of their anonymity. The author also informed that their responses would be used solely for academic purposes.

The questionnaire distribution, therefore, spans three weeks (December 1-28, 2023), and it is aimed at gathering insights into factors influencing public trust enhancement.

Data Analysis

In data analysis, the authors employ PLS-SEM, involving two stages: *measurement model assessment* and *structural model assessment* (see Figure 2). The measurement model assessment evaluates (i) *factor loadings*, (ii) *internal consistency*, (iii) *convergent validity,* and (iv) *discriminant validity* (Hair et al., 2017, 2019, 2021). Factor loadings, ideally exceeding 0.7, indicate the strength and direction of the relationship between observed variables and latent constructs. Internal Consistency is gauged through measures such as Cronbach's alpha and composite reliability (CR), both requiring values above 0.7 to be considered adequate. Convergent Validity involves testing convergent validity, measured by the Average Variance Extracted (AVE), which should be over 0.5, and discriminant validity, assessed using the Fornell-Larcker criterion to ensure that the square root of AVE for each construct exceeds its correlations with other constructs.

In the structural model assessment, the authors evaluate (i) *path coefficients*, (ii) *coefficient of determinations*, and (iii) *f^2 effect size* (Hair et al., 2017, 2019, 2021). Path coefficients, representing relationships between latent constructs, need to be significant and illustrate the strength and direction of causal paths. Additionally, the f^2 effect size measures the change in R^2, helping to understand the impact of exogenous variables on endogenous variables. The coefficient of determination (R^2) reflects the proportion of variance in the dependent variable explained by independent variables, with values closer to 1 indicating a stronger explanatory power of the model. Researchers must interpret these values within the context of their specific study domain to ensure they derive meaningful insights.

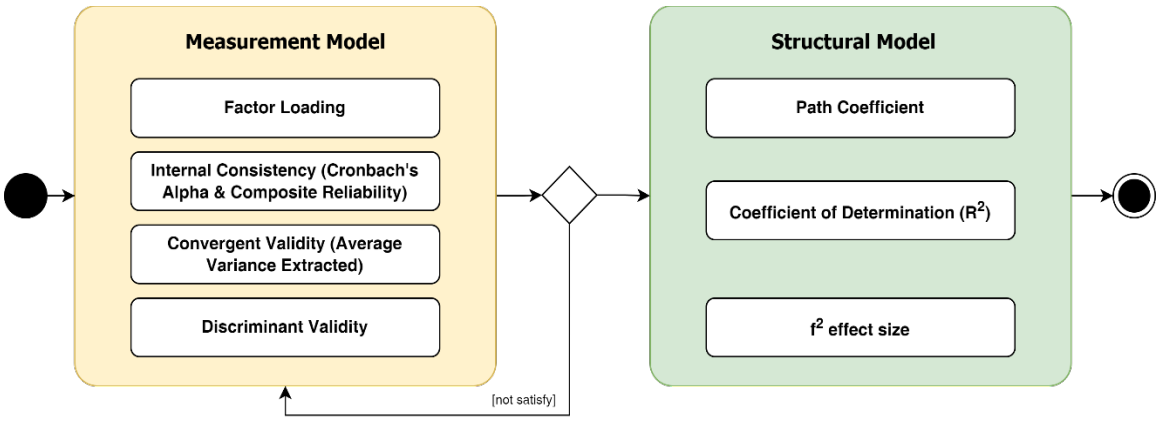

Figure 2. Data analysis mechanism (Hair et al., 2017, 2019, 2021)

Result and Discussion

Respondents Demography

This study yielded a dataset consisting of 278 valid samples (41% of the sample frame) and has satisfied the minimum sample of 252 respondents, forming the foundation for descriptive analysis (see Table 2). Gender distribution revealed a predominance of male respondents (70.14%), indicating a notable participation of men in the utilisation of e-government services in the region. However, this profile underscores the opportunity and challenge to further understand the involvement of women in these services to ensure gender inclusivity. Exploring age groups, the distribution exhibited diversity across generations. The age group of 25–34 emerged as the most active (35.61%), highlighting the significant role of the younger generation in adopting technology and engaging with government e-services in Regency X. Conversely, the 55–64 age group demonstrated lower participation rates

(1.08%), emphasising the necessity for inclusive strategies to ensure technological accessibility across all age groups, particularly addressing the needs of vulnerable demographics, especially in healthcare services.

Regarding educational attainment, the majority of respondents held Bachelor/Four-year college degrees (54.32%), indicating a high level of understanding and adaptation to technological changes. However, it remains essential to acknowledge that educational level can serve as a limiting factor for certain segments of society, necessitating considerations in optimising the benefits of e-government services. This disparity may be linked to a better understanding and proficiency in technology among those with higher levels of education. Moreover, examining respondents' occupations, self-employed/entrepreneurs (41.73%) and military/police/civil servants (39.57%) dominated the utilisation of digital services, signifying the contributions of both private and governmental sectors in digital transformation. Nonetheless, the active participation of students (12.23%) and retirees (1.08%) adds complexity, demanding responsive e-government strategies from the Regency X government to cater to diverse societal needs. The frequency of e-government service usage also reveals intriguing patterns, with high annual usage (29.86%) depicting periodic dominance in administrative transactions. Daily (19.06%) and monthly (26.98%) usage indicate sustained interactions, presenting opportunities for deeper service development. In terms of access devices, smartphones (74.46%) emerged as the primary tool, reflecting the diversity and mobility of the Regency X community. However, the sustained usage of laptops (14.03%) and computers (3.24%) underscores the importance of providing flexible access through various platforms.

Table 2. Summary of participants (N=278)

Demographic variable	n	%
Gender		
Male	195	70.14
Female	83	29.86
Age		
18–24	44	15.83
25–34	99	35.61
35–44	82	29.50
45–54	50	17.99
55–64	3	1.08
Education		
Junior High School Graduate	3	1.08
Senior High School Graduate	94	33.81
Bachelor/ Four-year college	151	54.32
Master's degree	28	10.07
Doctoral	2	0.72
Occupation		
Military/Police/Civil Servant	110	39.57
Medical Personnel	9	3.24
Self-employed/Entrepreneurs	116	41.73
Student	34	12.23
Unemployed	6	2.16
Retired	3	1.08
Usage/Access		
Daily	53	19.06
Monthly	75	26.98
Weekly	32	11.51

Demographic variable	n	%
Annual	83	29.86
Semi-annual	35	12.59
Medium/Device		
Tablet	3	1.08
Computer	9	3.24
Smartphone	207	74.46
Face-to-Face	20	7.19
Laptop	39	14.03

RESULT

Measurement model assessment

At this stage, careful examination is applied to ensure the strength and coherence of the theoretical framework. One key aspect observed during this process is the factor loadings, which depict the level of association between observed variables and their underlying indicators. In the analysis, IQ1 exhibited a loading value below the established threshold, leading to its exclusion from the model (see Table 3). Conversely, Table 4 displays 25 valid indicators employed in this study, all demonstrating factor loadings surpassing the 0.700 threshold.

Table 3. Initial factor loadings

Item	Loading	Item	Loading
EE1	0.931	**SAT2**	0.936
EE2	0.943	**SAT3**	0.917
EE3	0.943	**SEQ1**	0.904
IQ1	**0.696**	**SEQ2**	0.931
IQ2	0.893	**SEQ3**	0.877
IQ3	0.843	**SQ1**	0.906
PE1	0.906	**SQ2**	0.877
PE2	0.912	**SQ3**	0.924
PE3	0.935	**TRU1**	0.898
PVS1	0.921	**TRU2**	0.924
PVS2	0.939	**TRU3**	0.956
PVS3	0.915	**TRU4**	0.860
SAT1	0.902	**TRU5**	0.827

Furthermore, the evaluation of construct reliability and validity represents another pivotal aspect of measurement model assessment. The achievement of satisfactory reliability, indicated by Cronbach's alpha (α) and CR values exceeding 0.700 (Hair et al., 2017, 2019, 2021), confirms the internal consistency and stability of the model. As depicted in Table 4, all constructs surpass the specified thresholds. Simultaneously, the validation of constructs is supported through the examination of AVE, with a criterion set at >0.500. Thus, all constructs in this study exhibit AVE values surpassing this threshold, thereby confirming their convergent validity.

Table 4. Outer loadings, reliability, and validity

Construct	Indicator	Loading (>0.700)	Alpha (>0.700)	CR (>0.700)	AVE (>0.500)
EE	3	0.931–0.943	0.934	0.958	0.883
IQ	2	0.886–0.930	0.790	0.904	0.825
PE	3	0.906–0.935	0.906	0.941	0.842
PVS	3	0.915–0.939	0.916	0.947	0.856
SAT	3	0.902–0.936	0.907	0.942	0.843
SEQ	3	0.877–0.931	0.888	0.931	0.817
SQ	3	0.877–0.924	0.886	0.930	0.815
TRU	5	0.827–0.956	0.937	0.952	0.799

Furthermore, the assessment of discriminant validity is conducted using the Fornell-Larcker criterion. This criterion compares the square root of AVE with inter-construct correlations, thereby highlighting the distinctiveness of constructs. As demonstrated by the analysis in Table 5, the absence of correlations exceeding the square root of AVE for each construct unequivocally confirms discriminant validity. Thus, the proposed model meets the necessary standards of discriminant validity, affirming its effectiveness in distinguishing between constructs.

Table 5. Fornell-Larcker criterion

	EE	IQ	PE	PVS	SAT	SEQ	SQ	TRU
EE	**0.939**							
IQ	0.803	**0.908**						
PE	0.848	0.756	**0.918**					
PVS	0.801	0.738	0.826	**0.925**				
SAT	0.899	0.828	0.835	0.797	**0.918**			
SEQ	0.810	0.765	0.741	0.755	0.858	**0.904**		
SQ	0.671	0.730	0.651	0.628	0.729	0.756	**0.903**	
TRU	0.852	0.772	0.870	0.892	0.848	0.814	0.676	**0.894**

Structural model assessment

In the structural model assessment, the path coefficients highlight the significant pathways of influence among numerous hypothesised relationships. From a recent study involving 16 predetermined hypotheses, 12 were found to be statistically significant, showing the impact of various constructs on individuals' overall perceptions (see Table 6). Notably, within the System Quality (SQ) domain, four hypotheses were rejected, suggesting its limited ability to shape individual perceptions (H2a–H2d). Among the observed relationships, the connection between e-government service quality (SEQ) and user satisfaction (SAT) stands out significantly, with a path coefficient (β) of 0.518 and a t-statistic of 6.925. Furthermore, the statistical significance of accepted hypotheses is reinforced by their p-values, with nine hypotheses having values below 0.001, one below 0.01, and two below 0.05, affirming their robustness within the structural model (see Figure 3).

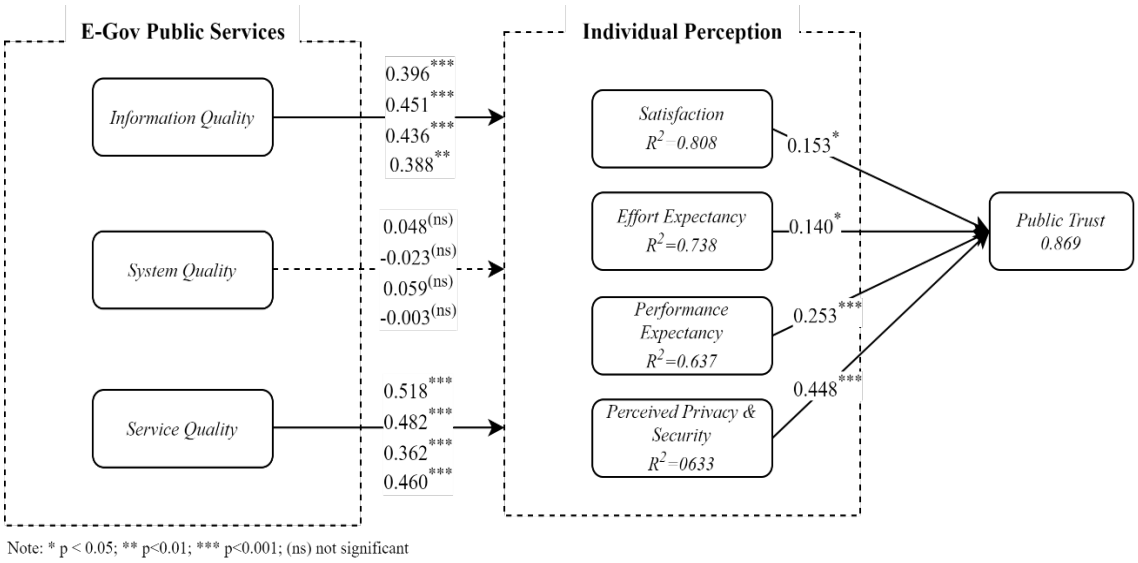

Figure 3. Result of the study

Effect size, indicated by f^2, offers additional insights into the magnitude of relationships within the structural model. Within the accepted hypotheses, the impact varies, with five relationships having minor effects, five showing substantial effects, and two demonstrating significant effects. Particularly notable is the influence of e-government service provision (SEQ) on user satisfaction (SAT), with an f^2 value of 0.461, explaining 46.1% of the user satisfaction variance. Similarly, the relationship between privacy and security perceptions (PVS) and public trust (TRU) is highlighted by an f^2 value of 0.420, affirming the crucial role of individual perceptions in shaping public trust and underlining the vital role of e-government services in building public confidence.

Table 6. Path coefficient and effect size

Hypothesis		β	t-statistics	P values	Accepted?	f^2	Effect
H1a	IQ → SAT	0.396	5.213	0.000	Yes***	0.294	Medium
H1b	IQ → EE	0.451	5.163	0.000	Yes***	0.280	Medium
H1c	IQ → PE	0.436	4.599	0.000	Yes***	0.189	Medium
H1d	IQ → PVS	0.388	3.078	0.001	Yes**	0.148	Small
H2a	SQ → SAT	0.048	0.485	0.314	No	0.005	
H2b	SQ → EE	-0.023	0.238	0.406	No	0.001	
H2c	SQ → PE	0.059	0.530	0.298	No	0.004	
H2d	SQ → PVS	-0.003	0.026	0.489	No	0.000	
H3a	SEQ → SAT	0.518	6.925	0.000	Yes***	0.461	Large
H3b	SEQ → EE	0.482	6.298	0.000	Yes***	0.293	Medium
H3c	SEQ → PE	0.362	4.091	0.000	Yes***	0.119	Small
H3d	SEQ → PVS	0.460	5.444	0.000	Yes***	0.191	Medium
H4	SAT → TRU	0.153	2.121	0.017	Yes*	0.030	Small
H5	EE → TRU	0.140	1.859	0.032	Yes*	0.023	Small
H6	PE → TRU	0.253	3.653	0.000	Yes***	0.104	Small
H7	PVS → TRU	0.448	7.828	0.000	Yes***	0.420	Large

Note: *p<0.05; **p<0.01; ***p<0.001

Furthermore, the coefficients of determination (R^2) provide valuable insights into the collective explanatory power of exogenous variables concerning endogenous constructs. Notably, the R^2 values within the structural model range from moderate to substantial, indicating the varying degrees of influence exerted by exogenous variables on endogenous constructs. For instance, user satisfaction (SAT) has the highest R^2 value of 0.808, meaning that 80.8% of user satisfaction variance is explained by dimensions of e-government services (IQ and SEQ). Conversely, public trust (TRU) has the highest R^2 value of 0.869, emphasizing the profound impact of individual perceptions on public trust and elucidating the critical role of e-government services in fostering public confidence.

Table 7. Predictive relevance

Construct	R^2	Power
EE	0.738	Moderate
PE	0.637	Moderate
PVS	0.633	Moderate
SAT	0.808	Substantial
TRU	0.869	Substantial

DISCUSSION

E-government services

In e-government services, three key variables underpin measurement: *Information Quality (IQ), System Quality (SQ),* and *Service Quality (SEQ)*. While all three are believed to significantly shape individuals' perceptions and their impact on public trust in e-government services, only IQ and SEQ have been empirically demonstrated to exert such an influence. Surprisingly, SQ has not shown statistically significant sway over individual perceptions, with all hypotheses (H2a–H2d) linking system quality to various dimensions of individual perception being rejected at the 0.05 significance level. The findings contrast with previous studies suggesting that well-functioning and reliable systems ensure smooth and trustworthy user experiences, significantly bolstering satisfaction and public trust in the government's capacity to deliver effective and responsive services (Wirtz & Daiser, 2018; Zhao, 2010).

Information quality (IQ). This study's findings reveal that high-quality information significantly enhances user satisfaction ($\beta = 0.396$; t-statistics = 5.213), perceived ease/effort expectancy ($\beta = 0.451$; t-statistics = 5.163), perceived usefulness/performance expectancy ($\beta = 0.436$; t-statistics = 4.599), and perceived security and privacy ($\beta = 0.388$; t-statistics = 3.078). These results underscore the critical role of consistent and accurate information in shaping positive user experiences and trust in e-government services, similar to previous studies from Santa et al. (2019) and Sterrenberg and L'Espoir Decosta (2023). The study also aligns with Alawneh et al. (2013), emphasising the need for precise, relevant, and timely information to foster trust in digital platforms.

In rural areas like Regency X, where access to information might be restricted, the precision and accessibility of digital platforms become even more crucial. At the local government level, this study highlights the importance of high-quality information in fostering public trust. This study's findings show that information quality has a medium effect size on satisfaction (SAT), perceived ease (EE), and perceived usefulness (PE), and a smaller yet significant effect on perceived security and privacy (PVS). These dimensions collectively contribute to a more comprehensive understanding of how information quality shapes user experiences and trust in e-government services, particularly in rural settings where digital literacy and infrastructure might be limited. This reinforces the need for local governments to prioritise high-quality information in their digital services to enhance user satisfaction and trust, ultimately improving the overall effectiveness of e-government initiatives.

Service quality (SEQ). Similarly, SEQ has been validated to influence all dimensions of individual perception (SAT, EE, PE, PVS). The study suggests that superior service provided by service officers heightens user satisfaction, with SEQ emerging as the most significant factor in the research model, supported by a β value of 0.518 and a t-statistic of 6.298. Furthermore, the substantial f^2 value (0.461) indicates that SEQ can clarify most of the variance in SAT, highlighting its dominant role in shaping individual perceptions. This study validates previous findings emphasising the crucial role of service officers' quality in e-government service provision (DeLone & McLean, 2003, 2016; Urbach & Müller, 2012). Additionally, the study's results align with similar conclusions from prior research, such as those by Santa et al. (2019), which demonstrate the impact of service quality on user satisfaction. Sterrenberg and L'Espoir Decosta (2023) and Alawneh et al. (2013) also assert the pivotal role of service quality in shaping individual perceptions.

In the context of Regency X, where rural communities often encounter unique challenges in accessing and interacting with e-government services due to limited infrastructure and resources, the significance of service quality becomes even more crucial. Service officers act as vital intermediaries between government agencies and citizens, aiding and supporting in navigating digital platforms and completing transactions. Their professionalism, responsiveness, and ability to address user queries effectively directly influence user satisfaction and trust in e-government services. Therefore, investing in the training and capacity building of service officers in Regency X, as well as implementing mechanisms to ensure their continued excellence in service delivery, becomes imperative for fostering public trust and engagement with e-government initiatives.

System quality (SQ). In this study, unlike IQ and SEQ, SQ did not demonstrate a statistically significant influence (with β ranging from -0.023 to 0.059) on individual perceptions, which contrasts with the extensive literature advocating the crucial role of system quality in user satisfaction and trust (Aljukhadar et al., 2022; Nulhusna et al., 2017; Santa et al., 2019). Albeit previous studies underscore the significance of a reliable, efficient, and functional technological infrastructure in ensuring a seamless user experience and cultivating public trust, within the context of Regency X, these factors seem less pivotal. One potential explanation is that users in rural areas may prioritise the accessibility and quality of information and services over the technical aspects of e-government systems. Alternatively, the existing system infrastructure in Regency X may already meet a baseline level of functionality that does not substantially differentiate user experiences.

These findings imply that local governments in rural regions like Regency X might derive greater benefits from concentrating on enhancing the quality of information and services rather than heavily investing in technological upgrades. Ensuring the accuracy, relevance, and ease of access to information, alongside providing high-quality services, appears to be more effective in augmenting user satisfaction and trust.

Individual perception

When examining individual perceptions, the authors employ four variables to measure how individuals view e-government-based public services and their impact on public trust in government institutions. These variables – Satisfaction (SAT), Effort Expectancy (EE), Performance Expectancy (PE), and Security & Confidentiality Perception (PVS) – significantly influence the enhancement of public trust in government. This study's findings, moreover, support the findings from previous studies regarding trust in government entities (Alawneh et al., 2013; Aljukhadar et al., 2022; Trkman et al., 2023).

This study reaffirms that public trust in e-government services is heavily influenced by perceptions of privacy and security measures implemented by the government, aligning with previous findings. Stronger public trust in government agencies, particularly local governments, correlates with greater confidence in the government's protection of privacy and data security. Additionally, factors like user satisfaction, influenced by the quality of information and e-government services, significantly contribute to public trust in Regency X.

Notably, perceptions of security and confidentiality (PVS) emerge as the most dominant predictor, significantly impacting public trust. With a β value of 0.448, a t-statistic of 7.828, and a significance level of p-value <0.001, PVS demonstrates a substantial influence. Furthermore, PVS also exhibits a significant effect size, with an f^2 value of 0.420, explaining 42% of the variation in public trust.

This study also reaffirms that public trust in e-government services is heavily influenced by perceptions of privacy and security measures implemented by the government. This underscores previous findings indicating that public trust in the government hinges on individuals' perceptions of privacy and security measures. Consequently, stronger public trust in government agencies, especially in local governments, correlates with greater confidence in the government's protection of privacy and data security. However, it is not just perceptions of security and confidentiality that are crucial; other factors within individual perception also significantly contribute to public trust. For instance, user satisfaction with current services is heavily influenced by the quality of information and e-government services provided by the Regency X government, with both variables influencing 80.8% of the variation.

Moreover, perceptions of ease (EE) and benefit (PE) also hold moderate influence, with R^2 values of 0.738 and 0.637, respectively (Hooda et al., 2022; Kurfalı et al., 2017). Perceptions of ease, influenced by the quality of information and services, slightly affect public trust with a β of 0.140 and a t-statistic of 1.859, explaining only 2.3% of the variation. Benefit perception also influences public trust with a β of 0.253, a t-statistic of 3.653, and an f^2 effect size of 0.104, explaining 10.4% of the variation. This reinforces previous studies' findings that perceptions of ease or effort required and perceived benefits impact public trust. Therefore, considering these four variables is crucial in maintaining and bolstering public trust, particularly regarding perceptions of security and confidentiality.

Satisfaction (SAT). The analysis reveals a significant correlation between user satisfaction (SAT) and e-government services, primarily driven by information quality (IQ) and service quality (SEQ) from the Regency X government. An R^2 value of 0.808 indicates that IQ and SEQ account for 80.8% of the variance in SAT. Although user satisfaction is influenced by e-government services, it also impacts public trust (TRU) with a β value of 0.153, explaining a minor variance of 3% (f^2 of 0.030), demonstrating small predictive power.

In Regency X, high user satisfaction necessitates the delivery of accurate, relevant, and timely information via e-government platforms. The local government's provision of seamless and responsive services directly enhances citizens' trust. In rural Indonesia, where traditional services may be limited, high-quality digital services can bridge the gap, improving user satisfaction and fostering trust in governmental entities. This finding aligns with previous studies indicating that user satisfaction remains a crucial determinant of public trust in e-government services (Alawneh et al., 2013; T. Chen et al., 2023; Porumbescu, 2016; Reddick & Turner, 2012; Santa et al., 2019).

Effort expectancy (EE). Effort expectancy, referring to the perceived ease of using e-government services, also influences public trust, albeit to a lesser extent. The analysis shows a β value of 0.140, explaining only 2.3% of the variation in public trust. The R^2 value for EE currently stands at 0.738, indicating moderate predictive power – influenced by IQ and SEQ. Despite its relatively minor role, effort expectancy remains a notable factor in understanding individual perceptions of e-government services, which ultimately influence public trust, thus supporting the findings from previous studies (Hooda et al., 2022; Kurfalı et al., 2017)

In Regency X, the perceived ease of using e-government platforms can significantly affect citizens' willingness to engage with digital services. For rural populations, where the digital divide occurs, ensuring that e-government interfaces are user-friendly and accessible is essential. Simplified navigation and intuitive design can reduce the cognitive load on users, making it easier for them to access and utilise government services. This is particularly important in regions with developing technological infrastructure, where efforts to enhance digital literacy can substantially improve public trust in government services.

Performance expectancy (PE). Performance expectancy, which assesses the perceived benefits and usefulness of e-government services, moderately influences public trust. The analysis reveals a β value of 0.253 and an f^2 of 0.104, explaining 10.4% of the variation in public trust within a small category. The R^2 value for performance expectancy also stands at 0.637, indicating moderate predictive power influenced by information quality (IQ) and service quality (SEQ). This study demonstrates that citizens' perceptions of the benefits derived from e-government services have a measurable, albeit small, impact on their trust in government.

In rural areas, where access to efficient public services is often limited, emphasising the advantages of e-government initiatives becomes crucial for enhancing public trust. By demonstrating how digital services save time, reduce costs, and provide efficient solutions, the Regency X government can substantiate its value. Case studies illustrating streamlined processes, such as in China (Li & Shang, 2023), and Turkey (Kurfalı et al., 2017), elucidate e-government's effectiveness (Hooda et al., 2022). These efforts could address local needs by facilitating remote consultations and online document submissions, thereby eliminating complex requirements.

Perceived security and privacy (PVS). Notably, perceptions of security & confidentiality emerge as the most dominant predictor, significantly impacting public trust. With a β value of 0.448, a t-statistic of 7.828, and a significance level of p-value <0.001, PVS demonstrates a substantial influence. The R^2 value for PVS currently stands at 0.633, indicating moderate predictive power. Furthermore, PVS also exhibits a significant effect size, with an f^2 value of 0.420, explaining 42% of the variation in public trust (large category). These results underscore the critical importance of data security and privacy measures in shaping citizens' trust in e-government services, especially for rural communities.

In Regency X, ensuring robust data protection and transparent privacy policies becomes essential. Rural citizens may be particularly concerned about the security of their personal information, especially in a digital environment. This is particularly interesting as they have common awareness regarding their data confidentiality, albeit living in a rural area. Addressing these concerns through comprehensive security protocols and clear communication about data privacy can significantly enhance public trust. The government's commitment to protecting citizen data builds confidence in e-government services and reinforces the legitimacy and credibility of government institutions. This finding aligns with previous studies, such as in Thailand (Nookhao & Kiattisin, 2023), Canada (Aljukhadar et al., 2022), Slovenia, and Germany (Trkman et al., 2023), highlighting the pivotal role of security and privacy perceptions in fostering public trust in digital government services (Nulhusna et al., 2017).

Public trust

This study focuses on the concept of public trust, influenced by dimensions of e-government services based on the Quality Service Theory and mediated by individual perceptions according to the self-perception theory. In Regency X, local governments must prioritise two main aspects: *the quality of the information provided* and *the quality of e-government services delivered to users*. Clear and accurate information quality, as suggested by Janssen et al. (2018), can bolster public trust in the government and its services, encompassing transparent information delivery and easy accessibility for users. Additionally, optimal e-government service quality is equally crucial. This study highlights that employing sophisticated yet user-friendly information technology can enhance user satisfaction and indirectly influence positive perceptions of the services provided. Ease of service use, such as intuitive navigation and fast response times, has been shown to increase public trust levels in the government (Hartanto et al., 2021; Hooda et al., 2022; Li & Shang, 2023; Porumbescu, 2016).

Furthermore, it is imperative to recognise that aspects of *user data security and confidentiality* remain pivotal in shaping public trust. Ensuring data security is an absolute necessity for public trust in e-government services (Alawneh et al., 2013; Aljukhadar et al., 2022; Nookhao & Kiattisin, 2023; Trkman et al., 2023). Therefore, implementing strict, robust data security standards and clear privacy policies is a crucial step for local governments to ensure stable and sustainable public trust. By addressing these aspects, local governments can bolster public trust through improved information quality, user-

friendly e-government services, and robust data protection measures. These endeavours will not only enhance public trust in the government but also reinforce the legitimacy and credibility of government institutions in the eyes of the public at large.

IMPLICATIONS

Theoretical

The authors believe that this study has shed light on broader concepts of governance, digitalisation, and societal dynamics. Building upon the findings of Durachman et al. (2020) and Mensah (2018), who highlight the influence of public trust on the quality of e-government services, this study underscores the reciprocal nature of this relationship – uunderscoring the importance of citizens' perceptions and the internal dynamics in shaping public trust. Furthermore, this study's focus on local government contexts, as identified in the research gap, contributes to theoretical developments in the field of decentralised governance and local public administration. Drawing from the studies by Nulhusna et al. (2017), Li and Shang (2023), Mansoor (2021), Aljukhadar et al. (2022), Jameel et al. (2019), and Hooda et al. (2022) regarding the importance of approaches in enhancing public trust, this study emphasises the relevance of context-specific analyses in understanding the dynamics of e-government and public trust. By delving into the intricacies of local governance structures and their interactions with digitalisation, this study enriches theories of local governance effectiveness and citizen engagement. It underscores the need for tailored strategies that account for the unique challenges and opportunities present at the local level, thereby advancing theoretical frameworks aimed at fostering inclusive and responsive governance practices.

Practical/Managerial

The outcomes of this study hold significant implications for policymakers, practitioners, and researchers in e-government and public administration. Recognising information quality (IQ) and service quality (SEQ) as pivotal factors that influence user satisfaction and public trust underscores the importance of investing in the quality of information and services in e-government projects. Local authorities should prioritise the delivery of clear, precise, and easily accessible information alongside user-friendly service interfaces to heighten citizen satisfaction and cultivate public trust. Moreover, the focus on perceptions of security and confidentiality as primary predictors of public trust emphasises the urgent need for robust data protection measures. Policymakers and practitioners must enforce stringent data security standards and transparent privacy policies to strengthen citizen confidence and fortify governmental legitimacy. Furthermore, this study advocates for future investigations to deepen the comprehension of the intricate relationship between e-government services and public trust.

LIMITATIONS

While this study offers valuable insights, it remains imperative to acknowledge its limitations. First, this study was conducted within a specific local government context, which may restrict the applicability of the findings to other regions or governmental settings. To ensure the validity of the results, future studies should replicate the research in various contexts. Second, relying solely on self-reported data from surveys may introduce biases, such as response bias or social desirability bias, potentially impacting result accuracy. To address this, future works could employ mixed methods approaches or objective measures. Last, this study's cross-sectional design limits the ability to establish causal relationships between variables. Longitudinal studies or experimental designs would be beneficial to better understand the causal effects of e-government services on public trust over time.

CONCLUSION

This study investigates the complex dynamics of e-government services, with a focus on three key factors: *Information Quality (IQ), System Quality (SQ),* and *Service Quality (SEQ)*. While all three are be-

lieved to influence individuals' perceptions and public trust, empirical evidence only supports the impact of IQ and SEQ, with SQ showing no statistically significant effect. Particularly noteworthy is the significant enhancement in user satisfaction, perceived ease, usefulness, and security associated with high-quality information, which remains paramount in rural areas like Regency X, where access to information may be limited. Thus, prioritising the provision of high-quality information becomes crucial for fostering public trust, underscoring the vital role of information quality in shaping user experiences and trust in e-government services.

SEQ further emerges as a crucial factor affecting individual perceptions, with service officers playing a pivotal role as intermediaries between government agencies and citizens. This is especially related in rural regions such as Regency X, where unique challenges in accessing e-government services exist. Therefore, investing in the training and capacity building of service officers becomes imperative for enhancing public trust. Interestingly, SQ does not demonstrate a statistically significant influence, suggesting that users in rural areas prioritise accessibility and quality of information and services over technical aspects. This implies that local governments in Regency X might benefit more from focusing on enhancing information and service quality rather than heavily investing in technological upgrades, ultimately enhancing user satisfaction and trust in e-government initiatives.

Moreover, this study emphasises the critical need to address concerns regarding data security and confidentiality in e-government services. Perceptions of security and privacy stand out as key predictors of public trust, underlining the importance of robust data protection measures and transparent privacy policies to maintain citizen confidence in government institutions. By embracing these principles and investing in enhancing e-government service quality, local governments can not only meet the evolving needs of their constituents but also strengthen the foundation of democratic governance.

The implications of the findings extend beyond academic discourse to offer practical insights for policymakers and practitioners in the field of e-government. Local governments should prioritise delivering high-quality e-government services, emphasising accurate information, user-friendly interfaces, and robust data protection measures. By addressing these aspects, governments can meet the evolving needs of their constituents and fortify democratic governance in the digital era.

For practitioners, the findings indicate the necessity of investing in improving e-government service quality, focusing on IQ and SEQ. This involves ensuring the accuracy, accessibility, and usability of information for citizens and implementing robust data protection measures to safeguard citizen privacy and security. Transparent communication of privacy policies and proactive measures to address concerns about data security are vital for building and maintaining public trust in e-government services.

For researchers, this study underscores the importance of further exploring the nuanced dynamics of e-government and public trust. Future research could employ longitudinal studies to assess the long-term effects of enhancing service quality, information quality, and security. Cross-cultural investigations could reveal global principles and contextual differences in user experiences, supporting global e-government strategies, especially in rural areas. Additionally, enhancing the research model by incorporating additional variables such as risk aversion or fear of job loss could deepen understanding in this field.

Finally, in the ever-changing realm of digital governance, where bytes of information shape civic engagement and trust, the influence of e-government-based public services on public trust resonates as a symphony of transparency, accessibility, and reliability. As we navigate the complexities of the digital era, let us remember that each click, each interaction, holds the potential to build trust between citizens and their government, forming a bond that transcends pixels and protocols. In the symphony of e-government services, let trust be the guiding melody, harmonising the chords of democracy and paving the way towards a future where governance is not only digital but truly trusted – *even for a local community*.

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APPENDIX: MEASUREMENT ITEMS

ID	Dimension/item	Reference
Information Quality		
IQ1	I find the information presented in public services very useful.	(Alawneh et al., 2013; Aljukhadar et al., 2022; DeLone & McLean, 2003, 2016; Nulhusna et al., 2017; Santa et al., 2019; Sterrenberg & L'Espoir Decosta, 2023; Urbach & Müller, 2012)
IQ2	I find the information presented in public services thorough.	
IQ3	I find the information presented in public services regularly updated and easy to understand.	
System Quality		
SQ1	The e-government service information system I use independently is user-friendly.	(Alawneh et al., 2013; Aljukhadar et al., 2022; DeLone & McLean, 2003, 2016; Nulhusna et al., 2017; Santa et al., 2019; Sterrenberg & L'Espoir Decosta, 2023; Urbach & Müller, 2012)
SQ2	The e-government service information system I use independently rarely experiences errors or disruptions.	
SQ3	The e-government service information system I use independently is quite responsive.	
Service Quality		
SEQ1	Service officers understand my needs as a user.	(Alawneh et al., 2013; Aljukhadar et al., 2022; DeLone & McLean, 2003, 2016; Nulhusna et al., 2017; Santa et al., 2019;
SEQ2	Service officers provide special attention and empathy towards me.	

ID	Dimension/item	Reference
SEQ3	When there is a problem, service officers surely help resolve it and provide solutions.	Sterrenberg & L'Espoir Decosta, 2023; Urbach & Müller, 2012)
Satisfaction		
SAT1	I am satisfied with e-government-based public services.	(Alawneh et al., 2013; T. Chen et al., 2023; DeLone & McLean, 2003, 2016; Porumbescu, 2016; Reddick & Turner, 2012; Salsabila et al., 2022; Santa et al., 2019; Urbach & Müller, 2012)
SAT2	I feel e-government-based public services are quite effective.	
SAT3	I feel using e-government-based public services is a good choice.	
Effort Expectancy		
EE1	I find the process/SOP of e-government-based public services easy to follow.	(Aljukhadar et al., 2022; Hooda et al., 2022; Mensah, 2018; Salsabila et al., 2022; Trkman et al., 2023; Venkatesh et al., 2003, 2012; Venkatesh & Davis, 2000)
EE2	I find it easy to use e-government-based public services.	
EE3	I find e-government-based public services quite clear and easy to understand.	
Performance Expectancy		
PE1	By using e-government-based public services, I can meet my needs.	(Aljukhadar et al., 2022; Hooda et al., 2022; Mensah, 2018; Salsabila et al., 2022; Trkman et al., 2023; Venkatesh et al., 2003, 2012; Venkatesh & Davis, 2000)
PE2	I feel that digital services (e-government) help the process of public services become faster and more effective.	
PE3	I feel that e-government-based public services help me achieve the results I want.	
Perceived Privacy & Security		
PVS1	I trust that my personal data is protected by the provider (agency) in e-government-based public services.	(Alawneh et al., 2013; Aljukhadar et al., 2022)
PVS2	I feel e-government-based public services follow standards for personal data protection.	
PVS3	e-government-based public services have the technology and standards to ensure my data is not accessed by unauthorised individuals.	
Public Trust		
TRU1	I believe the government acts in the interest of citizens.	(Beshi & Kaur, 2020; Durachman et al., 2020; Hartanto et al., 2021; Hooda et al., 2022; Mansoor, 2021; Mensah, 2018; Porumbescu, 2016; Trkman et al., 2023)
TRU2	I feel confident relying on the government to fulfil its obligations.	
TRU3	In my view, the government is trustworthy.	
TRU4	In my assessment, local governments fulfil their duties well according to their responsibilities.	
TRU5	In my opinion, local governments keep their promises.	

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Sujianto, the Vice Rector II for General Affairs and Finance at Universitas Riau, has distinguished himself as a leading authority in Public Policy and Institutionalisation. His illustrious academic career boasts numerous reputable publications and the successful mentorship of many scholars and professionals. Widely recognised for his expertise in the implementation of local institutions, Sujianto has made substantial contributions to academic discourse and institutional development. His leadership at Universitas Riau is characterised by a steadfast commitment to enhancing educational and financial administration within the university.

Harapan Tua Ricky Freddy Simanjuntak, a distinguished lecturer and researcher, serves as the Head of the FISIP Laboratory at Universitas Riau. Specialising in Administrative Science, he has made significant academic contributions through his esteemed publications and mentorship of numerous successful scholars and professionals. His research primarily explores Human Resource Development and Public Service, where he aims to foster excellence and innovation. Harapan Tua's commitment to education and research underscores his dedication to cultivating future leaders and enhancing administrative practices in Indonesia.

Welly Wirman, a Lecturer, Researcher, and Head of the Communication Studies Programme at Universitas Riau, excels in Communication Science and Social Science. Her work is widely acclaimed, with numerous reputable publications and a legacy of mentoring successful scholars and professionals. Welly's research interests focus on phenomenology and communication science, aiming to deepen the understanding of human interaction and communication processes. Her leadership in the Communication Studies Programme demonstrates a commitment to academic excellence and the cultivation of a vibrant intellectual community.

Wahyu Setiawan Wibowo earned his master's degree in information technology from the University of Indonesia and currently serves as an IT Analyst at Indonesia's National Office of Statistics, Statistics Indonesia (BPS). Throughout his career, he has actively contributed to various government initiatives, most notably the transformative One Data Policy. His research interests encompass software engineering, IT adoption, smart government, open data, information security, information visualisation, human-computer interaction, and data management.