Smart Society : Community Service and Empowerment Journal
Volume 6, Issue 2, 401 - 415
e_ISSN: 2807-5757
https://www.journal.foundae.com/index.php/smartsoc/index

Beyond Symbolic Government Branding: An Integrative Model of Public Trust in Indonesia's Digital Building Certification Services (SLF)

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Article Info

Article history:

Received: Feb 22, 2026
Revised: May 27, 2026
Accepted: Jun 20, 2026

Keywords:

Government Branding, Public Trust, Public Value, Substantive Credibility, SIMBG, Certificate of Occupancy (SLF).

Abstract

Background: The digitalization of public regulatory services does not automatically strengthen public trust, participation, or regulatory compliance. In Indonesia, the Building Management Information System (SIMBG) supports the Certificate of Occupancy (SLF) process, yet certification outcomes remain influenced by users' service experiences, communication quality, institutional credibility, and broader administrative conditions. This study examines government branding as a substantive service-based mechanism rather than merely a symbolic communication strategy.
Methods: An explanatory sequential mixed-methods design was employed. The quantitative phase involved 300 SIMBG users from Sidoarjo, Semarang, and Bandung selected through purposive sampling and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The qualitative phase used semi-structured interviews and document analysis to explain and contextualize the quantitative findings.
Findings: Public participation showed the strongest positive relationship with SIMBG adoption (β = 0.766), followed by communication quality (β = 0.562). SIMBG adoption was also strongly associated with SLF ownership (β = 0.712). Qualitative findings indicated that procedural transparency, communication clarity, responsive assistance, and consistency between government messages and actual service delivery shaped perceptions of institutional credibility. Technical assessment costs, limited availability of qualified experts, document revisions, and other non-platform requirements remained important barriers to certification completion.
Conclusion: Effective digital building certification depends not only on technological availability but also on credible government-user relationships and a supportive certification ecosystem. Government branding becomes substantively credible when messages of convenience, transparency, and professionalism are reinforced by actual service performance.
Novelty/Originality: This study positions SIMBG as a digital service-based brand touchpoint linking participation, communication quality, platform adoption, SLF completion, and public value.

To cite this article: Wulandari, F. R., Riau, D. P., & Thaha, A. R. (2026). Beyond Symbolic Government Branding: An Integrative Model of Public Trust in Indonesia's Digital Building Certification Services (SLF). *Smart Society: Community Service and Empowerment Journal, 6*(2), 401-415.

INTRODUCTION

The digitalization of public services presents a paradox: as more governments develop electronic service portals, it becomes increasingly clear that technology alone does not automatically generate citizen trust, participation, or compliance. Digital transformation can reduce transaction costs, broaden access to information, and accelerate service delivery, but these benefits depend heavily on service quality, transparency, security, and users' actual experiences when interacting with government (Luna et al., 2024; Sharma et al., 2024). Recent evidence from Indonesia further shows that higher levels of e-government maturity are not always accompanied by greater trust in public officials, because digitalization can also increase the visibility of service weaknesses and raise public expectations regarding bureaucratic performance (Ariansyah et al., 2026). This contradiction

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is particularly relevant in regulatory services that do not end with platform use but require users to complete a sequence of requirements that culminates in tangible administrative compliance. One such service is the Building Management Information System (SIMBG), which serves as the digital channel for building permitting and the Certificate of Occupancy (SLF) process in Indonesia. Therefore, the success of building-certification digitalization cannot be evaluated solely by the existence of an electronic system; it must also be assessed by its ability to establish a credible relationship between government and service users.

This issue becomes even more important because the SLF is not merely an administrative document but a post-construction instrument related to the technical fitness, safety, and legal use of a building. International studies on digital building permits show that conventional building-permit processes continue to face complex documentation, fragmented information, inconsistent interpretation of requirements, lengthy processing times, and weak coordination among actors (Noardo et al., 2022; Fauth et al., 2023). In Indonesia, the problem has an additional dimension because participation in SLF certification remains low despite the availability of SIMBG, a national digital system; a recent study even reported that SLF ownership is below 10% of buildings nationwide (Riau et al., 2026). That study also identified consultant costs, weak document validation, non-uniform local requirements, limited technical personnel capacity, and institutional coordination as persistent barriers in the certification process. This situation demonstrates that digitalizing the certification workflow does not automatically eliminate administrative barriers or change users' perceptions of government services. Accordingly, low certification completion should be understood as a socio-technical problem at the intersection of platform quality, service experience, institutional trust, and citizens' readiness to participate in the regulatory process.

The urgency of this study grows when digital experience is understood as one of the main ways citizens evaluate government. The e-government literature indicates that information quality, service responsiveness, ease of use, privacy protection, and system security are important factors shaping users' trust in digital government services (Fadrial et al., 2024; Taufiqurokhman et al., 2024; Le et al., 2026). In the Indonesian context, Hutahaean et al. (2023) found that trust in e-government is an important predictor of citizen participation, while transparency and information quality also strengthen the formation of such trust. These findings suggest that user behavior is not merely a response to technological features but also the result of evaluations of the reliability and credibility of the institutions providing the service. At the same time, research on digital participation emphasizes the importance of accountability mechanisms to ensure that citizen empowerment through technology genuinely yields high-quality participation experiences (Sharma et al., 2024). From this perspective, users' decisions to continue the SIMBG process until obtaining an SLF can be understood as the result of the interaction between the digital service experience and judgments about government credibility, rather than simply as acceptance of an application.

The government branding framework offers a relevant perspective for explaining this process, provided that branding is not reduced to logos, slogans, or government communication campaigns. Contemporary public administration literature positions public branding as part of governance strategy because government brands can influence how citizens evaluate policies, organizations, and the credibility of public services (Zavattaro et al., 2021; Eshuis et al., 2021). Stevens et al. (2021), for example, show that target groups value transparent branding processes that provide space for stakeholders to act as co-producers rather than merely as passive recipients of messages. This perspective transforms branding from a promotional activity into a relational process that depends on consistency between institutional messages and users' actual service experiences. In the context of SIMBG, government reputation is therefore shaped not only by communication about service convenience, but also by response speed, information clarity, process transparency, and the digital experience of uploading documents, responding to corrections, and monitoring application status. This study conceptualizes digital service-based government branding through the dimensions of trust-building, service quality, communication quality, and digital experience, assuming that branding acquires substantive meaning only when the communicated image is consistent with the service performance users actually experience.

Although relevant, the three bodies of literature underpinning this study have developed with relatively separate emphases. The digital building permit literature primarily focuses on automated compliance checking, data interoperability, regulatory digitalization, BIM, document management,

and improved permit-workflow efficiency (Noardo et al., 2022; Guler & Yomralioglu, 2022; Fauth et al., 2023), leaving the psychological and relational dimensions between users and public authorities comparatively underexplored. By contrast, e-government research has demonstrated relationships among service quality, transparency, trust, perceived value, and user participation (Hutahaean et al., 2023; Fadrial et al., 2024; Taufiqurokhman et al., 2024; Sharma et al., 2024; Le et al., 2026), yet most studies are not situated in building-certification contexts that require regulatory compliance through to completion. Public branding research has also shown that branding can function as a governance instrument, influence trust, and gain stronger legitimacy when stakeholders are involved in the process (Zavattaro et al., 2021; Eshuis et al., 2021; Stevens et al., 2021). Meanwhile, the public value literature emphasizes that the value of digital services is shaped by citizens' experiences, interactions, and opportunities to participate in creating services that generate individual and social benefits (Virtanen & Jalonen, 2024; Luna et al., 2024; Pauluzzo, 2024). The dominance of these fragmented approaches leaves an unresolved question about how government service reputation, trust, participation, and digital system use interact within a regulatory process that ultimately leads to concrete compliance.

This gap becomes clearer when the international literature is compared with recent studies on SLF and SIMBG in Indonesia. Riau et al. (2026) made an important contribution by showing that SLF knowledge, SIMBG ease of use, and user intention are associated with participation in the certification process; the study also found that technical and bureaucratic barriers did not always show the expected statistical relationships, although they remained important in the qualitative findings. However, that study was grounded in compliance management, the Technology Acceptance Model, and the Theory of Planned Behavior, and therefore did not explain how digital service experiences shape public trust through government branding mechanisms. Conversely, studies of e-government and public branding have examined service quality, trust, participation, or branding separately, but have not linked them sequentially to certification-platform use and completion of regulatory obligations (Eshuis et al., 2021; Hutahaean et al., 2023; Fadrial et al., 2024; Luna et al., 2024). It also remains unclear whether government communication and image can continue to build trust when users encounter discrepancies between messages about digital convenience and actual service experiences, an issue that becomes increasingly relevant because technological maturity alone does not necessarily increase public trust (Ariansyah et al., 2026). Accordingly, the research gap addressed in this study is the lack of an integrative model that links service-experience-based government branding, public trust, public participation, SIMBG adoption, and completion of SLF certification, while simultaneously distinguishing between substantive credibility and branding perceived as merely symbolic. This gap also highlights the need to bridge three research traditions that have largely developed separately: public branding, digital government, and digital building compliance.

Based on this gap, the study aims to test an integrative model of the relationships among digital service-based government branding, public trust, public participation, SIMBG use, and SLF ownership among service users in Sidoarjo, Semarang, and Bandung. Specifically, the study examines how trust-building, service quality, communication quality, and digital experience relate to public trust; how such trust is associated with citizen participation; and how participation and SIMBG use relate to completion of the certification process. The study also considers substantive credibility versus symbolic branding to explain the conditions under which government communication may strengthen or fail to build trust due to inconsistencies between messages and service experiences. Theoretically, this study extends the public branding literature by positioning the digital service platform as a service-based brand touchpoint and connecting it with the literature on public trust, citizen participation, and digital government in a regulatory-compliance context. Empirically, the study complements digital building certification research, which has predominantly focused on technology, workflow, usability, and compliance, by incorporating mechanisms of citizen-government relations into the certification process. Practically, the findings are expected to provide a basis for designing SIMBG services that are not only technologically efficient but also transparent, credible, participatory, and capable of transforming SLF compliance from an administrative obligation into a process that generates public value for building safety and use.

METHOD

Research Design

This study employed a mixed-methods approach with an explanatory sequential design, in which data were collected and analyzed sequentially, with a quantitative phase followed by a qualitative phase. The quantitative phase was used to test relationships among variables in the government branding model of Certificate of Occupancy (SLF) services. In contrast, the qualitative phase was used to deepen and explain statistical findings that required contextual interpretation. This design was selected because the use of the Building Management Information System (SIMBG) involves not only technological aspects but also service experiences, trust in government institutions, user participation, and various administrative and technical barriers throughout the certification process. The results of the quantitative analysis were used to identify issues requiring further exploration through interviews with relevant stakeholders. In the final stage, both types of data were integrated to obtain a more comprehensive understanding of the relationships among government branding, public trust, public participation, SIMBG use, and completion of SLF certification.

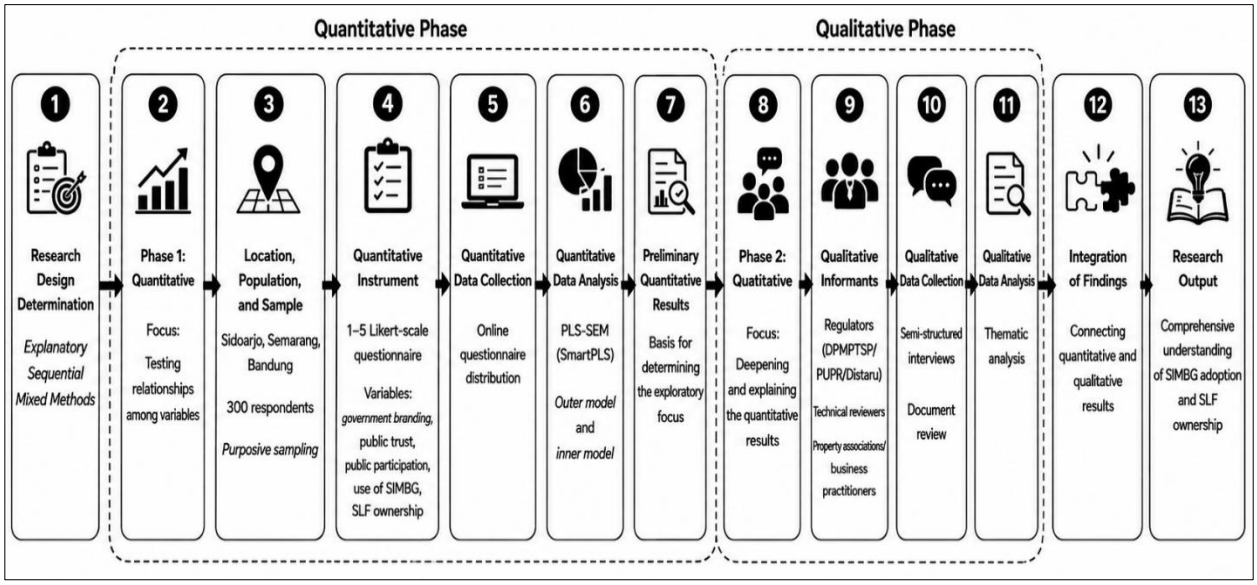

Figure 1. Explanatory Sequential Mixed-Methods Research Flow

The research flow presented in Figure 1 shows that the study began with research-design specification, determination of locations and samples, quantitative data collection, and PLS-SEM analysis. The initial quantitative findings then served as the basis for determining the focus of exploration in the qualitative phase. Qualitative data were collected through semi-structured interviews and documentation and were subsequently analyzed thematically. The final stage integrated the two sets of findings to provide a more complete explanation of the mechanisms underlying SIMBG adoption and completion of the SLF process.

Research Location, Population, and Sample

The study was conducted in Sidoarjo Regency, Semarang City, and Bandung City. The three locations were purposively selected because they are urban areas with relatively high levels of development activity and complex implementation of SIMBG-based building-certification services. The quantitative study population comprised building owners or managers, particularly those responsible for commercial and non-simple residential buildings, who were currently using or had previously used SIMBG in the SLF application process. Because the number of SIMBG users is dynamic and no stable single sampling frame is available, the study employed non-probability purposive sampling.

Respondents were required to meet three main criteria: (1) being a building owner or manager; (2) having previously participated or currently being involved in the SLF application process through SIMBG; and (3) having direct experience that enabled them to evaluate the service

process received. The quantitative sample consisted of 300 respondents, with 100 respondents drawn from each research location. Sampling across the three regions was intended to capture variation in user experiences of SIMBG implementation across different urban administrative contexts. Because a non-probability sampling technique was used, interpretation of the findings is limited to SIMBG users who met the study criteria and is not intended to provide statistical generalization to all SLF users in Indonesia.

In the qualitative phase, informants were purposively selected for their involvement in and knowledge of SIMBG and SLF services. Informants represented regulatory institutions, including DPMPTSP and PUPR/Distaru offices, certified technical assessment experts, and representatives of business associations or property-sector actors. Interviews were designed to obtain perspectives on service quality, government communication, institutional credibility, experiences of using SIMBG, technical assessment costs, and barriers to completing certification. The exact number of informants and the interview period should be reported based on the actual research data.

Research Variables and Instruments

Quantitative data were collected using a structured questionnaire with a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. The instrument was developed based on the constructs in the research model and drawing on the literature on government branding, e-government, public trust, public participation, digital services, and building certification. The main constructs analyzed were government branding, public trust, public participation, substantive credibility versus symbolic branding, SIMBG adoption, SLF realization, and public value creation. The operationalization of each construct is presented in Table 1.

Table 1. Operationalization of Research Variables

Construct	Position in the Model	Main Dimensions/Indicators	Measurement	Conceptual References
Government Branding	Exogenous variable	Trust building; service quality; communication quality; digital experience	Likert 1-5	Alon-Barkat (2020); Stevens et al. (2021); Zavattaro et al. (2021)
Public Trust	Mediator	Service reliability; transparency; security and privacy; institutional integrity	Likert 1-5	Hutahaean et al. (2023); Fadrial et al. (2024); Taufiqurokhman et al. (2024)
Public Participation	Mediator	Willingness to participate; active involvement; interaction in the certification process; voluntary compliance	Likert 1-5	Hutahaean et al. (2023); Sharma et al. (2024)
Substantive Credibility vs. Symbolic Branding	Moderator	Consistency between messages and actual service delivery; information accessibility; transparency; perceived authenticity	Likert 1-5	Alon-Barkat (2020); Zavattaro & Eshuis (2021)
SIMBG Adoption	Endogenous/intervening variable	Actual use; continued use; operational ease; system functionality	Likert 1-5	Riau et al. (2026); Le et al. (2026)
SLF Ownership and Public Value	Outcome	Certification completion; building reliability; safety and asset protection; perceived economic benefits	Adapted from the original instrument	Riau et al. (2026); Virtanen & Jalonen (2024)

The government branding construct is understood not merely as visual image-building, but as users' evaluation of the quality of their relationship with the government and their service experience. Public trust reflects users' confidence in the reliability, transparency, security, and integrity of service providers, while public participation reflects users' involvement in following and completing the certification process. Substantive credibility versus symbolic branding is used to capture the degree of consistency between government-communicated messages and the actual quality of services users receive. SIMBG adoption reflects actual use and users' experience of the system. In contrast, the outcome concerns completion of the SLF process and the value perceived from compliance with building-fitness standards.

Before testing the structural model, the quality of the measurement model was evaluated through construct validity and reliability assessments. Convergent validity was assessed using outer loadings and Average Variance Extracted (AVE), with a minimum AVE threshold of 0.50. Internal reliability was evaluated using Cronbach's alpha and composite reliability, while discriminant validity was examined using the Heterotrait-Monotrait Ratio (HTMT). These assessments were conducted to ensure that each construct had adequate internal consistency and was empirically distinguishable from the other constructs.

Data Collection Procedure

Data collection was carried out in two stages in accordance with the explanatory sequential design. In the first stage, questionnaires were distributed to respondents who met the research criteria in Sidoarjo, Semarang, and Bandung. The questionnaire was administered electronically to facilitate data collection from SIMBG users across the three research locations. Before analysis, submitted responses were screened to ensure completeness and consistency with the eligibility criteria for respondents.

The second stage was conducted after the initial quantitative analysis had been completed. Findings requiring further explanation were used to determine the focus of semi-structured interviews with key informants. The interviews primarily explored user and service-provider experiences with process transparency, service communication, government credibility, use of SIMBG, and gaps between government information and actual service conditions. The exploration also covered the cost of technical assessment services, the availability of technical experts, document corrections, and technical constraints affecting existing buildings.

In addition to questionnaires and interviews, the study used documentary analysis as a supporting data source. The documents included regulations related to buildings, information and reports on SIMBG implementation, available SLF administrative data, and other documents relevant to service implementation in the study areas. Documentary data were used mainly to provide contextual support for the survey and interview findings.

Quantitative Data Analysis

Quantitative data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS software. The analysis was conducted in two stages: evaluation of the measurement model (outer model) and evaluation of the structural model (inner model). Measurement-model assessment included outer loadings, AVE, Cronbach's alpha, composite reliability, and HTMT. A construct was considered to have adequate convergent validity when its AVE exceeded 0.50, and its indicators had loadings that met the acceptance criteria.

After the measurement model was deemed adequate, the analysis proceeded to the structural model evaluation. The assessment included the Variance Inflation Factor (VIF) to identify potential collinearity, R^2 to evaluate the ability of exogenous constructs to explain variation in endogenous constructs, and f^2 to assess the relative contribution of each predictor. Relationships among variables were tested through bootstrapping by evaluating path coefficients, t-statistics, p-values, and confidence intervals. Indirect-effect analysis was used to evaluate mediation mechanisms through public trust and public participation.

Substantive credibility versus symbolic branding was positioned as a moderator of the relationship between government branding and public trust. If the moderator was tested in the empirical model, the analysis was conducted by forming an interaction term between government branding and substantive credibility. Moderation was interpreted based on the direction and significance of the interaction coefficient and, where necessary, the pattern of relationships at different moderator levels. This procedure allows the study to evaluate whether the effect of government branding on public trust varies with users' perceptions of government services as more substantive or more symbolic.

Qualitative Data Analysis

Interview data were analyzed using a thematic-analysis approach combined with an interactive analytical process involving data condensation, data display, and conclusion drawing and verification. The initial stage involved reading the interview transcripts comprehensively and identifying statements relevant to the research focus. Relevant statements were then coded and grouped into categories with similar meanings. These categories were subsequently developed into themes that explained informants' experiences and perceptions of SIMBG services and the SLF certification process.

The analysis focused on several major themes, including trust in service providers, procedural transparency, communication quality, digital experience, user participation, and perceptions of consistency between government communication and actual service delivery. Perspectives from regulators, technical assessors, and business actors were compared to identify similarities and differences across stakeholder experiences. The qualitative findings were not treated as a stand-

alone analysis; rather, they were used to explain why particular relationships emerged in the quantitative results.

Integration of Quantitative and Qualitative Data

Integration was conducted during the interpretation stage by linking the PLS-SEM results to the thematic analysis findings. Qualitative findings were used to explain statistical relationships that were strong, weak, or inconsistent with theoretical expectations. For example, the relationship between communication quality and SIMBG use could be further explained through informants' experiences of guideline clarity, staff responsiveness, and ease of obtaining technical information. Likewise, findings related to public trust could be compared with users' experiences of procedural transparency and consistency between communicated information and actual service delivery.

This integration allows the findings to be interpreted not only by reference to statistical coefficient magnitudes but also in light of the institutional context and the experiences of actors involved in the certification process. The integrated findings were then used to explain how government branding, public trust, public participation, and digital service experiences interact in encouraging SIMBG use and SLF completion. Thus, the explanatory sequential mixed-methods design provides a basis for a more comprehensive interpretation of digital building-certification issues.

RESULTS AND DISCUSSION

Results

Overview of the Analysis Results

The analysis was conducted sequentially in accordance with the explanatory sequential mixed-methods design. The quantitative phase was used to identify structural relationships among variables related to public participation, communication quality, use of the Building Management Information System (SIMBG), and completion of the Certificate of Occupancy (SLF). The quantitative findings were then explored further through qualitative analysis to explain the user experiences and service conditions underlying these relationships. The quantitative results showed that public participation and communication quality were positively associated with SIMBG use, while SIMBG use was positively associated with SLF ownership. The qualitative findings further indicated that procedural transparency, communication clarity, digital experience, and consistency between government messages and actual service delivery were important issues in explaining user behavior.

Relationship Between Public Participation and SIMBG Use

Structural-model analysis showed that public participation had a strong positive relationship with SIMBG use, with a path coefficient of $\beta = 0.766$. Compared with the other relationships reported in the model, this coefficient was the largest, indicating that user involvement plays an important role in using the digital certification platform. This finding suggests that SIMBG use is associated not only with the availability of digital infrastructure but also with citizens' willingness to become actively involved in the administrative process of building certification.

In this study, participation was reflected in users' involvement in following application procedures, fulfilling technical requirements, interacting with service providers, and continuing the certification process through the digital platform. Thus, greater user involvement in the service process was associated with a greater likelihood of using SIMBG. The finding also suggests that service mechanisms that provide applicants with opportunities for interaction and involvement may be important conditions for sustained use of the digital system.

Relationship Between Communication Quality and SIMBG Use

In addition to public participation, communication quality showed a positive relationship with SIMBG use, with a path coefficient of $\beta = 0.562$. This result indicates that government communication plays an important role in helping users understand the requirements and certification procedures that must be completed through the digital platform. Clear information on documents, verification stages, technical procedures, and mechanisms for resolving issues can reduce uncertainty for users during the application process.

In the context of SLF services, effective communication concerns not only the dissemination of information but also the ability of service providers to deliver information that is consistent, understandable, and responsive to users' needs. The findings indicate that when technical guidance

is communicated more clearly, and users have opportunities to obtain assistance for the problems they encounter, continued use of SIMBG becomes easier. Accordingly, communication quality is a service component directly related to users' experiences of the digital system.

Relationship Between SIMBG Use and SLF Ownership

The relationship between SIMBG use and SLF ownership also showed a strong positive coefficient (β = 0.712). This result indicates that actual platform use is associated with the completion of the building certification process. SIMBG serves as the primary channel for document submission, administrative and technical review, process monitoring, and certification completion. Therefore, the experience of using the platform constitutes an important part of the overall process of fulfilling SLF requirements.

The coefficient also indicates that the functioning of digital services cannot be separated from the administrative outcome they are intended to achieve. When users can access the system, follow the stages of service delivery, and complete the digital process continuously, the likelihood of completing the SLF application increases. However, this result should be interpreted as a structural relationship within the research model rather than as evidence of experimental causality, given that the study used nonprobability survey data.

Table 2. Summary of Reported Structural Relationships

Structural Relationship	Path Coefficient (β)	Direction	Interpretation
Public Participation → SIMBG Adoption	0.766	Positive	Strongest relationship among the reported paths
Communication Quality → SIMBG Adoption	0.562	Positive	Service communication is associated with SIMBG use
SIMBG Adoption → SLF Ownership	0.712	Positive	SIMBG use is strongly associated with SLF completion

Qualitative Findings: Transparency and Clarity of Service Procedures

The qualitative analysis showed that procedural transparency was one of the main issues affecting applicants' experiences of digital certification services. Users require clear information on requirements, the status of documents in the verification process, and the steps to take when documents require revision. Lack of clarity in these processes can reinforce perceptions that SLF applications are complicated to predict. Conversely, when procedures can be tracked more transparently, and information is provided consistently, users have a stronger basis for continuing the application process.

This finding also provides context for the positive relationship between communication quality and SIMBG use. Communication that is relevant to users is not limited to publicity or program dissemination; more importantly, it helps resolve administrative and technical problems during the application process. Thus, the effectiveness of service communication depends substantially on the extent to which applicants can use the information provided directly.

Qualitative Findings: Gaps Between Service Messages and Actual Experience

Another theme that emerged was potential skepticism toward government branding when messages about the convenience and efficiency of digital services did not fully correspond with users' experiences. In the data, this issue was associated with complex requirements, document-correction processes, technical assessment costs, and limited expert availability under certain conditions. Such circumstances indicate that perceptions of government are shaped not only by how services are communicated but also by the consistency between that communication and the service performance users actually experience.

This condition distinguishes substantive credibility from branding perceived as merely symbolic. Substantive credibility emerges when messages about convenience, transparency, and professionalism are backed by service processes that users can experience firsthand. Conversely, when improvements do not follow positive communication in procedures or service experience, users may perceive government communication as less authentic. This finding provides a contextual explanation for why service experience should be considered part of the formation of trust in digital services.

Qualitative Findings: Technical and Economic Barriers to SLF Completion

The qualitative findings also show that digital system adoption does not automatically eliminate all barriers in the building certification process. Some barriers lie outside the platform's characteristics, particularly the cost of technical assessment experts, the limited availability of qualified experts, the need for document revisions, and the technical adjustments required for existing buildings. These barriers are important because users may have a positive experience with the digital platform yet still encounter difficulty meeting the technical requirements to obtain an SLF.

This finding indicates that certification completion results from the interaction between the digital system and the surrounding service ecosystem. SIMBG can simplify administrative processes, but its effectiveness still depends on institutional capacity, regulatory clarity, availability of supporting services, and users' ability to meet technical requirements. Therefore, evaluation of SIMBG implementation needs to consider not only the quality of the technology itself but also service conditions beyond the platform that affect certification completion.

Integration of Quantitative and Qualitative Findings

The integration of the two types of data revealed a consistent pattern regarding the importance of relational and service dimensions in SIMBG use. Quantitatively, public participation had the largest coefficient with respect to SIMBG use (β = 0.766), followed by communication quality (β = 0.562). Qualitatively, this pattern was explained by users' need for adequate interaction, understandable information, process transparency, and support in resolving administrative and technical issues. Thus, the use of a digital system in the context of building certification is determined not only by access to technology but also by the quality of interaction between users and service-providing institutions.

The positive relationship between SIMBG use and SLF ownership (β = 0.712) further indicates that the digital platform plays an important role in completing certification. However, the qualitative data show that the pathway to SLF ownership is also influenced by factors outside the platform, including assessment costs, availability of experts, and the complexity of technical requirements. The combination of these findings indicates that increased use of SIMBG needs to be accompanied by improvements in service quality and the broader certification ecosystem so that the benefits of digitalization can be translated into completed SLF certification.

Table 3. Integration of Quantitative and Qualitative Findings

Quantitative Finding	Qualitative Finding Providing Explanation	Integrative Meaning
Public Participation → SIMBG Adoption (β = 0.766)	Users need opportunities for interaction, assistance, and involvement throughout certification	Participation is an important component of sustained SIMBG use
Communication Quality → SIMBG Adoption (β = 0.562)	Clear information and technical assistance reduce procedural uncertainty	Operational communication strengthens the platform-use experience
SIMBG Adoption → SLF Ownership (β = 0.712)	Platform use supports process completion, although technical and economic barriers remain	Digitalization needs to be supported by improvements across the broader service ecosystem
Substantive credibility vs. symbolic branding	Inconsistency between messages and actual service delivery generates skepticism	Government branding gains credibility when supported by actual service performance

Overall, the findings indicate that the success of digital building-certification services cannot be explained solely by the existence of SIMBG. User participation, communication quality, service transparency, and consistency between government communication and actual experiences also shape platform use and certification completion. These findings provide an empirical basis for understanding SIMBG as part of the service relationship between government and citizens, rather than merely as administrative technological infrastructure.

Discussion

The findings demonstrate that SIMBG adoption is shaped not merely by the availability of a digital platform but by the relational conditions through which citizens engage with the regulatory service. Public participation showed the strongest reported association with SIMBG adoption (β = 0.766), indicating that users who are more actively involved in the certification process are also more strongly engaged with the digital platform. Conceptually, this pattern is consistent with public service

logic and co-production perspectives, in which public value is generated through interaction between public organizations and service users rather than through unilateral government delivery (Scupola & Mergel, 2022; Virtanen & Jalonen, 2024; Pauluzzo et al., 2024). Previous studies similarly demonstrate that trust, transparency, accountability, and opportunities for meaningful engagement can strengthen citizens' participation in digital government (Hutahaean et al., 2023; Sharma et al., 2024). AbdulKareem and Oladimeji (2024) further show that technological adoption is embedded in broader social conditions, particularly trust and users' capacity to engage meaningfully with digital government systems. The present finding therefore extends technology-centered accounts by suggesting that adoption in a regulatory setting is partly a process of procedural engagement, through which users become progressively involved in fulfilling administrative and technical requirements. Rather than proving a causal mechanism, the observed structural relationship suggests that participation may reduce institutional distance and uncertainty, thereby making continued engagement with SIMBG more meaningful to users.

This interpretation is particularly important when the findings are positioned against the global literature on digital building permits. Existing research has concentrated primarily on BIM-based compliance checking, interoperability, machine-readable regulations, digital workflows, and automation of permit procedures (Guler & Yomralioglu, 2022; Noardo et al., 2022; Fauth et al., 2023). Such studies provide strong explanations of how digitalization can improve administrative efficiency, yet they devote comparatively less attention to why applicants remain engaged throughout a complex regulatory process. Riau et al. (2026) moved this literature closer to the user perspective by demonstrating the relevance of platform usability, knowledge, intention, and participation in Indonesian SLF certification. Still, the current findings further foreground the relational dimension of digital compliance. This difference may reflect the characteristics of building certification itself: users cannot complete the process through a single technological interaction but must repeatedly respond to documentation, technical verification, corrections, and administrative requirements. Mensah et al. (2022) similarly found that information quality, service delivery, openness, responsiveness, and user orientation contribute to the public value of e-government and, in turn, to adoption intentions. Accordingly, the contribution of the present study is not to reject technology acceptance explanations but to show that their explanatory scope becomes more limited when digital technology operates within a demanding regulatory ecosystem. SIMBG adoption can therefore be interpreted more appropriately as a socio-institutional process in which platform functionality, participation, and institutional interaction operate together.

Communication quality represents a second important mechanism in this process, as indicated by its positive association with SIMBG adoption ($\beta = 0.562$). In digital certification, information is not simply a communication output; it enables applicants to translate regulatory requirements into concrete actions, such as preparing documentation, responding to verification requests, and correcting technical deficiencies. This interpretation is consistent with evidence that service and information quality are closely associated with trust, satisfaction, and continued engagement in e-government environments (Fadrial et al., 2024; Taufiqurokhman et al., 2024; Pham et al., 2023). Mansoor (2021) likewise showed that the provision of high-quality government information can reinforce citizens' trust, while Pramuditha et al. (2026) found that information quality is a particularly important component of e-government service quality and that user satisfaction contributes to citizen trust. These studies support the direction of the present findings. However, the SLF context differs because communication must address highly technical and legally consequential information rather than relatively standardized public-service transactions. Le et al. (2026) further demonstrate that service quality, perceived value, trust, and satisfaction operate as interconnected components of successful e-government, suggesting that communication should not be isolated from users' broader service experiences. The implication is that communication quality functions as part of the operational infrastructure of digital government, because unclear or inconsistent information increases cognitive and procedural burdens even when the technological platform itself remains accessible.

The strong positive relationship between SIMBG adoption and SLF ownership ($\beta = 0.712$) further indicates that digital engagement is closely embedded in the completion of building certification. Rather than functioning as a supplementary administrative channel, SIMBG constitutes the operational environment through which applications, documents, verification processes, and

certification outcomes are connected. This finding corresponds with public-value-oriented research showing that the benefits of e-government emerge not from technology itself but from its capacity to enable outcomes that citizens and public institutions regard as valuable (MacLean & Titah, 2022; Abdulkareem & Ramli, 2022; Mensah et al., 2022). Luna et al. (2024) similarly argue that citizens perceive digital public value through concrete service characteristics and benefits, while Asmawanti-Sa et al. (2025) identify system, information, and service quality as central dimensions linking digital government to citizen satisfaction and trust. However, the present relationship should not be interpreted as definitive evidence that SIMBG use causes SLF ownership, because applicants who are already highly committed to certification may simultaneously exhibit more intensive platform use. The cross-sectional design cannot fully separate these competing explanations, and the purposive sample limits population-level causal generalization. Nevertheless, the finding extends prior public-value research by linking digital engagement to a specific regulatory completion outcome, rather than limiting evaluation to intention, satisfaction, or continued use.

The qualitative findings add an important institutional layer by demonstrating that the credibility of government branding depends on whether communicated promises correspond to users' actual service experiences. Concerns regarding procedural uncertainty, repeated document correction, technical assistance, and discrepancies between promised simplicity and experienced complexity indicate that branding messages alone cannot sustain institutional credibility. This finding supports contemporary public-branding scholarship, which increasingly conceptualizes branding as a governance and reputation process rather than merely as the management of visual identities or promotional messages (Stevens et al., 2021; Zavattaro et al., 2021; Zavattaro & Eshuis, 2021). Experimental evidence from Eshuis et al. (2021) demonstrates that public brands can influence trust judgments, but such effects must be interpreted alongside the substantive information citizens receive about policies and institutions. More critically, Alon-Barkat (2020) shows that governmental symbols may themselves shape trust, raising the possibility that symbolic communication can produce perceptions that are not necessarily proportional to substantive performance. The current study advances this debate by distinguishing substantive credibility from symbolic branding: the former is generated when transparent procedures and reliable service performance reinforce communication, whereas the latter emerges when reputational claims are insufficiently grounded in users' experiences. Importantly, this distinction is supported here primarily through qualitative interpretation rather than a fully reported statistical moderation test; consequently, it should be treated as a theoretically informed explanatory mechanism rather than as a confirmed interaction effect.

The qualitative evidence concerning consultant costs, shortages of qualified technical experts, documentation revisions, and difficulties associated with existing buildings further challenges the assumption that digitalization automatically removes barriers to regulatory compliance. Digital building permit research has already demonstrated that technological modernization remains constrained by fragmented regulations, limited data interoperability, institutional coordination challenges, and limited implementation capacity (Noardo et al., 2022; Guler & Yomralioglu, 2022; Fauth et al., 2023). The present study extends these arguments by showing that important barriers may exist outside the digital platform itself, particularly within the professional and institutional ecosystem required to complete certification. This helps explain why technically functional digital services do not necessarily translate into universal regulatory completion. Riau et al. (2026) similarly identified practical and organizational constraints surrounding SLF certification, while Scupola and Mergel (2022) demonstrate more broadly that successful digital transformation depends on co-production across multiple phases and stakeholder groups. An alternative explanation for incomplete SLF ownership is therefore not simply user resistance or low technological acceptance, but unequal access to the technical, financial, and professional resources necessary to proceed through the certification process. From this perspective, SIMBG should be evaluated as one component of a service ecosystem, rather than as an autonomous technological solution whose improvement alone can resolve compliance problems.

Taken together, the quantitative and qualitative evidence supports a broader reconceptualization of how public value emerges from digital regulatory services. Public-value research increasingly argues that successful e-government should be assessed not merely through efficiency or system use, but through the wider individual, institutional, and societal outcomes

generated by digital service delivery (MacLean & Titah, 2022; Mensah et al., 2022; Luna et al., 2024; Virtanen & Jalonen, 2024). Pham et al. (2023), for example, demonstrate that trustworthiness and service fulfillment contribute to citizens' perceived value, while Asmawanti-Sa et al. (2025) show that digital-government research increasingly connects service, information, and system quality with trust and satisfaction from citizens' perspectives. The current findings contribute to the regulatory compliance literature by showing how participation, communication, platform engagement, and certification outcomes can be understood as connected stages of the public-service experience. In theoretical terms, this suggests that government branding acquires public value when it operates through credible service encounters, rather than when it remains confined to reputation management. The digital platform consequently becomes a service-based brand touchpoint: each interaction with SIMBG provides users with information they use to evaluate government capability, responsiveness, and credibility. This integration connects literatures that have largely developed separately, namely public branding, digital-government adoption, public value, citizen participation, and digital building compliance, thereby providing a more relational explanation of regulatory digitalization.

Within the wider global literature, the study therefore suggests that digital government maturity should not be automatically equated with stronger trust or more effective compliance. Ariansyah et al. (2026) report that greater e-government maturity does not necessarily lead to greater trust in public officials, while AbdulKareem and Oladimeji (2024) demonstrate that adoption continues to depend on trust and on citizens' capacity to navigate digital systems. These apparently different findings become compatible when digital transformation is viewed as an institutional rather than purely technological process: more sophisticated platforms can improve accessibility while simultaneously increasing citizens' expectations of transparency, speed, and procedural consistency. The findings from SIMBG indicate that unmet expectations may be especially consequential in regulatory services because users incur financial costs, face technical obligations, and face legally meaningful outcomes. For policymakers, this means that investments in portal reliability should be accompanied by transparent tracking mechanisms, standardized technical information, responsive assistance, stakeholder participation, and improved access to professional certification support. For theory, the study extends public-branding and digital-government perspectives by proposing that the legitimacy of digital government depends on the alignment of communication, performance, participation, and institutional capacity, rather than on technological advancement alone. Although the evidence remains bounded by purposive sampling, three urban contexts, self-reported measures, and a cross-sectional design, the resulting framework provides a contextually grounded contribution to the global debate on how digital public services convert technological modernization into trust, participation, regulatory completion, and ultimately public value.

LIMITATION

This study has several limitations that should be considered when interpreting the findings. The cross-sectional design limits the ability to establish cause-and-effect relationships among variables; accordingly, the relationships among government branding, public trust, public participation, SIMBG adoption, and SLF ownership are more appropriately interpreted as structural relationships within the model. The use of purposive sampling across three urban areas (Sidoarjo, Semarang, and Bandung) also limits the generalizability of the findings to SIMBG users nationwide, particularly in regions with varying institutional capacities and levels of digital infrastructure. In addition, most constructs were measured using respondents' perceptions via questionnaires, leaving potential for common method and perceptual biases. The qualitative findings also do not fully represent the full range of user and stakeholder experiences in the certification process. Furthermore, the distinction between substantive credibility and symbolic branding in this study is supported primarily by qualitative interpretation and the conceptual framework. It therefore should not be treated as a confirmed moderation effect without additional statistical testing. Future research is encouraged to employ longitudinal designs, probability sampling techniques, broader geographical coverage, actual administrative data, and more specific empirical testing of substantive credibility and symbolic branding mechanisms.

CONCLUSION

This study shows that the successful implementation of SIMBG in supporting the completion of the Certificate of Occupancy (SLF) process is determined not only by the availability of digital technology but also by the quality of relationships between the government and service users. Public participation showed the strongest relationship with SIMBG adoption (β = 0.766), followed by communication quality (β = 0.562), while SIMBG adoption had a strong positive relationship with SLF ownership (β = 0.712). These findings emphasize that user involvement, information clarity, procedural transparency, and service support are important elements in encouraging the use of digital regulatory services. The qualitative findings further indicate that the credibility of government branding is shaped when tangible service experiences support messages of convenience, professionalism, and transparency. In contrast, inconsistencies between communication and service performance may lead to perceptions of symbolic branding and user skepticism. Theoretically, this study extends the public branding and digital government literature by positioning SIMBG as a service-based brand touchpoint that connects service experience, citizen participation, digital platform use, and the completion of regulatory obligations. In practice, strengthening SIMBG should focus not only on improving system reliability but also on standardizing technical information, enhancing process transparency, providing responsive assistance, engaging stakeholders, and strengthening the capacity of the certification ecosystem. Thus, the digitalization of SLF services will generate more substantive public value when technological progress is aligned with institutional credibility, service quality, and citizen participation.

AUTHOR CONTRIBUTION STATEMENT

FRW contributed to conceptualization, methodology, formal analysis, investigation, and preparation of the original draft. **DPR** contributed to data curation, validation, investigation, and review and editing of the manuscript. **ART** contributed to supervision, visualization, interpretation of the findings, and review and editing.

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