



Bridging the Conceptual-Practice Divide: Does A Cloud-Based Accounting Information System Drive the Integration and Accountability of Islamic Philanthropy Institution?

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Abstract

Inefficiencies in financial management processes remain a persistent challenge for zakat institutions, typically characterized by fragmented systems, data redundancies, and non-compliance with the accountability mandates of the Indonesian Zakat Management Law. This study develops a cloud-based accounting information system for a municipal-level zakat institution in Indonesia—the National Zakat Management Board (BAZNAS) of Magelang City—utilizing the ADDIE framework (Analysis, Design, Development, Implementation, and Evaluation). Data were collected through interviews, field observations, and documentary analysis. System usability and user experience were validated using the System Usability Scale (SUS) and the User Experience Questionnaire (UEQ). The developed system yielded 21 integrated components that synchronize daily transactions, data recapitulations, executive dashboards, and formal financial reporting. SUS results confirmed high levels of usability regarding task completion, internal consistency, and user trust; concurrently, UEQ findings indicated strong performance in learnability, creative utility, and user comfort. However, limitations were identified concerning visual design, feature complexity, and an ongoing dependency on technical assistance. Future research should investigate the incorporation of automated validation features, evaluate system scalability across multiple institutions, and conduct longitudinal usability assessments. This study contributes a replicable framework for modernizing financial governance within Islamic philanthropic institutions.

Keywords: ADDIE Model; Cloud-Based Accounting Information System; Islamic Philanthropy, System Usability, User Experience.

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1. Introduction

The global potential of zakat, estimated between \$200 billion and \$1 trillion annually ([World Bank and Islamic Development Bank, 2016](#)), represents one of the most significant yet chronically underutilized instruments of Islamic socio-economic governance. Despite this latent potential, empirical data consistently reveal a profound mobilization gap: global zakat collection reached merely \$13.9 million in 2024 ([UNHCR, 2024](#)). Similarly, Indonesia, home to the world's largest Muslim population, collected only IDR 9 trillion against a projected potential of IDR 327 trillion—representing less than 5% of total capacity ([BAZNAS, 2024](#)). This systemic underperformance is not solely attributable to theological ambivalence or donor reluctance; rather, it is a governance failure rooted in institutional deficiencies regarding accountability, transparency, and the integration of financial management ([Febriandika et al., 2023](#); [Nasution et al., 2024](#)). The scholarly response to these governance failures has followed three broad trajectories. The first focuses on Sharia governance

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frameworks, arguing that the application of *tauhid*-based governance principles can strengthen institutional trust and public accountability (Zakiy et al., 2025; Zakiy & Falikhatun, 2024). The second emphasizes policy design, particularly through Zakat Core Principles (ZCP), as a normative foundation for governance reform (Wahyudi, 2022). The third, and most operationally actionable, advocates for information technology transformation as a systemic enabler of efficiency, transparency, and accountability across zakat collection, monitoring, and reporting (Hadi et al., 2024; Nashirudin et al., 2025; Rahman et al., 2025). Within this third trajectory, cloud-based accounting information systems (AIS) have emerged as particularly promising due to their capacity for real-time data access, minimal infrastructure requirements, and scalable deployment across institutional hierarchies (Utama et al., 2025; Zhang, 2025).

However, a critical gap persists at the intersection of these trajectories: there is a notable absence of empirical, practice-oriented studies that develop and validate a cloud-based AIS specifically designed for the operational realities of zakat institutions. While existing literature addresses cloud computing adoption in Islamic finance broadly (Sikka & Ojha, 2021), digital zakat management conceptually (Amilahaq et al., 2021; Beik et al., 2021), and AIS design in general organizational contexts (Hastuty Hs et al., 2023; Rashad Gahramanov, 2022), no prior study has integrated these streams into a structured, field-validated system development process specifically for a zakat institution.

Three specific gaps motivate this study. First, while prior research acknowledges the necessity of digital transformation in zakat governance, empirical studies that develop and validate a functional cloud-based AIS—rather than merely proposing its adoption—remain absent from the literature. Second, the ADDIE model, though widely applied in educational technology and instructional design, has not been systematically applied to AIS development within Islamic philanthropy institutions, representing an unexplored methodological intersection. Third, usability and user experience evaluations of zakat management systems using internationally standardized instruments, such as the System Usability Scale (SUS) and User Experience Questionnaire (UEQ), have not been reported in the zakat management literature. This leaves a significant empirical void in the human-computer interaction dimension of Islamic fintech governance. This study addresses these gaps by: (1) developing a cloud-based AIS comprising 21 integrated components through the ADDIE model; (2) implementing and validating the system within a municipal zakat institution in Central Java, Indonesia; and (3) evaluating system quality through SUS and UEQ instruments administered to operational users. In doing so, this study makes a dual contribution: practically, it delivers a replicable, field-tested governance tool for zakat institutions; theoretically, it extends the application of the ADDIE model and usability theory into the specialized domain of Islamic philanthropy governance.

2. Literature Review

2.1 Zakat, Infaq, and Sadaqah (ZIS) as A Theological Mandate to Institutional Imperative

The scholarly treatment of *Zakat*, *Infaq*, and *Sadaqah* (ZIS) has evolved considerably from classical theological exegesis toward contemporary institutional analysis, a trajectory that carries direct implications for how zakat management systems ought to be designed and evaluated. Linguistically, *zakat* (زكاة) denotes purification and growth; *infaq* (نفق) signifies voluntary expenditure in the path of Allah; and *sadaqah* (صدق) reflects sincerity and moral truthfulness (Nugraha & Wanto, 2025). Classical scholars including Umar Az-Zamakhshari (1998) and Umar Ibn Katsir (1997) established that zakat encompasses both a material obligation, as a the discharge of a quantifiable portion of wealth upon reaching *nisab* and *haul*, and a spiritual act of self-purification (*tazkiyah*), as mandated in Q.S. At-Taubah (9:103) and operationalised through the eight-category beneficiary framework (*asnaf*) of Q.S. At-Taubah (9:60).

Contemporary scholarship has productively reframed ZIS beyond its theological origins, positioning it as a structured socio-economic instrument with measurable welfare implications. Daud et al. (2025), Mongkito & Samdin (2025), and Mutmainah (2023) empirically demonstrate zakat's capacity for poverty reduction and income equalisation, while Mubarrak et al. (2023) and Siregar et al. (2024) confirm significant welfare improvements among recipient populations. This empirical body of work establishes a critical implication, if ZIS is to fulfil its socio-economic mandate at scale, the institutions responsible for its management must be governed with the rigour applied to any public welfare mechanism. The theological imperative and the institutional accountability imperative are therefore inseparable.

It is precisely at this juncture that Islamic Philanthropy Governance Theory becomes analytically indispensable. As Ghani et al. (2024) and Nordin et al. (2020) argue, conventional corporate governance

frameworks that designed around shareholder primacy and secular accountability logic, are structurally inadequate for zakat institutions whose accountability obligations extend vertically to Allah and horizontally to *muzakki*, *mustahiq*, regulators, and the public simultaneously. Islamic Philanthropy Governance Theory resolves this inadequacy by synthesising corporate governance, philanthropy governance, and Sharia governance into a unified architecture anchored by five Islamic principles: *tauhid* (divine unity), *khilafah* (stewardship), *amanah* (trust), *adl* (justice), and *ihsan* (excellence). Within this framework, transparency and accountability are not regulatory compliance mechanisms, they are theological obligations that constitute the institutional expression of *amanah* (Ghani et al., 2024; Rejosumarto & Bulut, 2024).

This reframing has a profound implication for system design, a cloud-based AIS developed for a zakat institution must not merely achieve technical efficiency but must operationalise *amanah* through every functional layer. The seven governance design principles of the theory, such as Sharia compliance, transparency and accountability, integrity and trust, justice, excellence, partnership, and visionary leadership, therefore serve not as abstract ideals but as design criteria against which the system developed in this study is benchmarked.

2.2 Governance Failures and the Conceptual-Practice Divide

The literature on zakat governance failures converges around three interrelated deficiencies, such as accountability, transparency, and institutional trust, whose structural causes are well-documented but whose practical remediation remains empirically underexplored. Febriandika et al. (2023) and Nasution et al. (2024) establish a robust empirical relationship between accountability quality and *muzakki* participation rates, confirming that governance failures directly suppress *zakat* mobilisation. Al-Fatih (2020) and Evriyenni et al. (2025) extend this finding by demonstrating that accountability deficits systematically generate preference for informal, direct-transfer zakat payment, effectively bypassing formal institutions and undermining the coordinated redistribution function that zakat institution is mandated to provide.

Indonesia's Zakat Management Law (Law No. 23 of 2011) normatively mandates that Indonesian National Zakat Management Board (BAZNAS), at all levels adhere to principles of *amanah* (trust), integration, and accountability across all management functions (Articles 2, 3, 7, and 26). Yet the empirical literature consistently documents a profound gap between this normative mandate and operational reality, particularly in municipal-level institutions where human resource constraints, fragmented manual processes, and the absence of integrated financial management systems impede compliance (Amilahaq et al., 2021; Anami, 2024). This conceptual-practice divide, between what the law mandates and what institutions actually deliver are constitutes the central problematic of the present study.

What the existing literature has not adequately addressed is the intersection between this governance gap and the Maqashid Shari'ah framework as an operational evaluation standard for remediation strategies. Al-Syatibi's five essential objectives, such as preservation of religion (*hifz al-din*), life (*hifz al-nafs*), intellect (*hifz al-aql*), lineage (*hifz al-nasl*), and wealth (*hifz al-mal*), have been applied in Islamic finance literature primarily as macro-level policy benchmarks (Alfaatih et al., 2024; Ma'mun, 2020). This study advances a more granular application, that each feature of the cloud-based AIS is evaluated for its direct contribution to one or more Maqashid objectives. The automated transaction validation mechanism serves *hifz al-mal* by preventing fund misappropriation and calculation errors; automated financial reporting serves *hifz al-din* by ensuring the proper and timely discharge of zakat obligations; and ergonomic, learnable system design serves *hifz al-nafs* by minimising cognitive burden on *amil* users whose welfare is integral to institutional sustainability. Zakiy et al. (2025) and Zakiy and Falikhathun (2024) further affirm that Sharia-grounded governance mechanisms of this kind demonstrably strengthen institutional accountability and public trust.

Critically, however, prior scholarship on zakat governance remediation has remained predominantly conceptual or policy-oriented, stopping short of producing and empirically validating an actual technological solution within a specific institutional context. Wahyudi (2022) designs a ZCP-based governance policy framework; Nashirudin et al. (2025) advocate technology adoption as a governance catalyst; and Hadi et al. (2024), Muharromi et al. (2025), and Wahyudi et al. (2023) provide empirical evidence of digital zakat system benefits at the system level. Yet none of these studies develops, deploys, and evaluates a complete cloud-based AIS through a structured development methodology.

2.3 Cloud-Based Accounting Information Systems as Governance Infrastructure

Cloud computing, defined by Jadhav (2024), Mell & Grance (2011), and Sikka & Ojha (2021) as the on-demand delivery of computing resources via the internet, offers five characteristics of direct institutional relevance, such as on-demand self-service, broad network access, resource pooling, rapid elasticity, and measured service. For zakat institutions constrained by limited budgets and geographically dispersed operations, these characteristics translate into substantive governance advantages, such as zero physical infrastructure investment, real-time multi-location data accessibility, and scalable capacity for transaction volume growth. Utama et al. (2025) and Zhang (2025) further demonstrate that cloud-based implementations outperform manual and locally-hosted systems on data accuracy, reporting timeliness, and audit traceability.

An Accounting Information System (AIS) is defined as a structured system for collecting, processing, and reporting financial data in support of accurate decision-making and organisational accountability (Hastuty Hs et al., 2023; Rashad Gahramanov, 2022). When combined with cloud architecture, AIS produces a governance infrastructure capable of systematic transaction recording, automated financial statement generation, and real-time accountability documentation. From a Technology Acceptance Model perspective (Davis, 1989; Venkatesh et al., 2003), sustained adoption is contingent upon the system achieving high perceived usefulness and ease of use. This is why usability evaluation (SUS) and user experience evaluation (UEQ) are not peripheral validity checks in this study but are theoretically gives a stance that users find difficult, unreliable, or unpleasant will not drive accountability regardless of its technical sophistication.

The synthesis across these frameworks produces the study's core theoretical proposition, which is the conceptual-practice divide in zakat governance is structurally bridgeable through a cloud-based AIS that simultaneously satisfies three conditions. First, it must be theologically grounded, designed in accordance with Islamic Philanthropy Governance principles and Maqashid Shari'ah objectives, so that its outputs constitute authentic expressions of *amanah* rather than mere bureaucratic compliance. Second, it must be technically integrated, connecting transaction inputs, recapitulations, dashboards, and financial reports within a single automated architecture, directly operationalising the integration mandate of Law No. 23 of 2011. Third, it must be institutionally viable, achieving sufficient usability and user experience quality to sustain adoption among *amil* users with diverse technical competencies, as validated through internationally standardised instruments. Prior literature satisfies none of these three conditions simultaneously. This study is the first to test all three empirically within a structured development framework, thereby occupying a distinct and novel position in the intersection of Islamic finance, *zakat* governance, and information systems research.

3. Research Methodology

3.1 Philosophical Methodology

This study employs a Research and Development (R&D) methodology, a scientifically rigorous approach oriented toward the systematic creation, testing, and validation of a functional product through iterative developmental stages (Sugiyono, 2023). R&D is epistemologically positioned within the pragmatist paradigm, wherein knowledge is generated through problem-solving practice and validated through real-world (Creswell, 2018). Within the R&D framework, this study adopts the ADDIE model as its operational development architecture, comprising five sequential yet iteratively interconnected stages, namely, Analyze, Design, Development, Implementation, and Evaluation.

3.2 Research Design

The ADDIE model originated from a US military training project and the Center for Educational Technology at Florida State University (Branson et al., 1975) and was subsequently formalised and disseminated by Molenda (2003). Its selection for this study is justified on three grounds. First, the model's iterative structure permits continuous formative evaluation at each developmental phase, enabling responsive revision based on user and expert feedback (Nuntawisuttiwong & Dejdumrong, 2024). Second, the ADDIE model has demonstrated robust adaptability across domains beyond its educational technology origins, including information system development, institutional capacity building, and organisational process design (Mulyasari et al., 2023). Third, its five-stage architecture maps directly onto the governance development challenge of this study, such as normative needs analysis (Analyze), system blueprint construction (Design), functional prototype realisation (Development), institutional deployment (Implementation), and multi-instrument validity assessment (Evaluation). The five stages and their operational parameters are presented in Figure 1 and Figure 2.

3.3 Epistemic

The study was conducted at a municipal-level zakat institution in Indonesian National Zakat Management Board (BAZNAS) in Magelang City, Central Java, Indonesia. Site selection was purposive, justified by three criteria: (1) the institution exhibited documented financial management fragmentation; (2) the institution's existing technological infrastructure was assessed as sufficient to support cloud-based system adoption; and (3) the researcher's direct access through a 54-day affiliated period enabled first-hand observation, institutional documentation access, and sustained stakeholder engagement necessary for a contextually valid development process.

3.4 Research Sample

The study sample comprised six *amil*. All six respondents held direct operational roles in the institution's ZIS, such as transaction recording, fund recapitulation, or financial reporting functions, to ensure that validity assessments reflected authentic user experience rather than peripheral familiarity. This approach is consistent with practice in usability research and with SUS and UEQ validation studies that routinely employ small expert user samples (Brooke, 1996; Laugwitz et al., 2008).

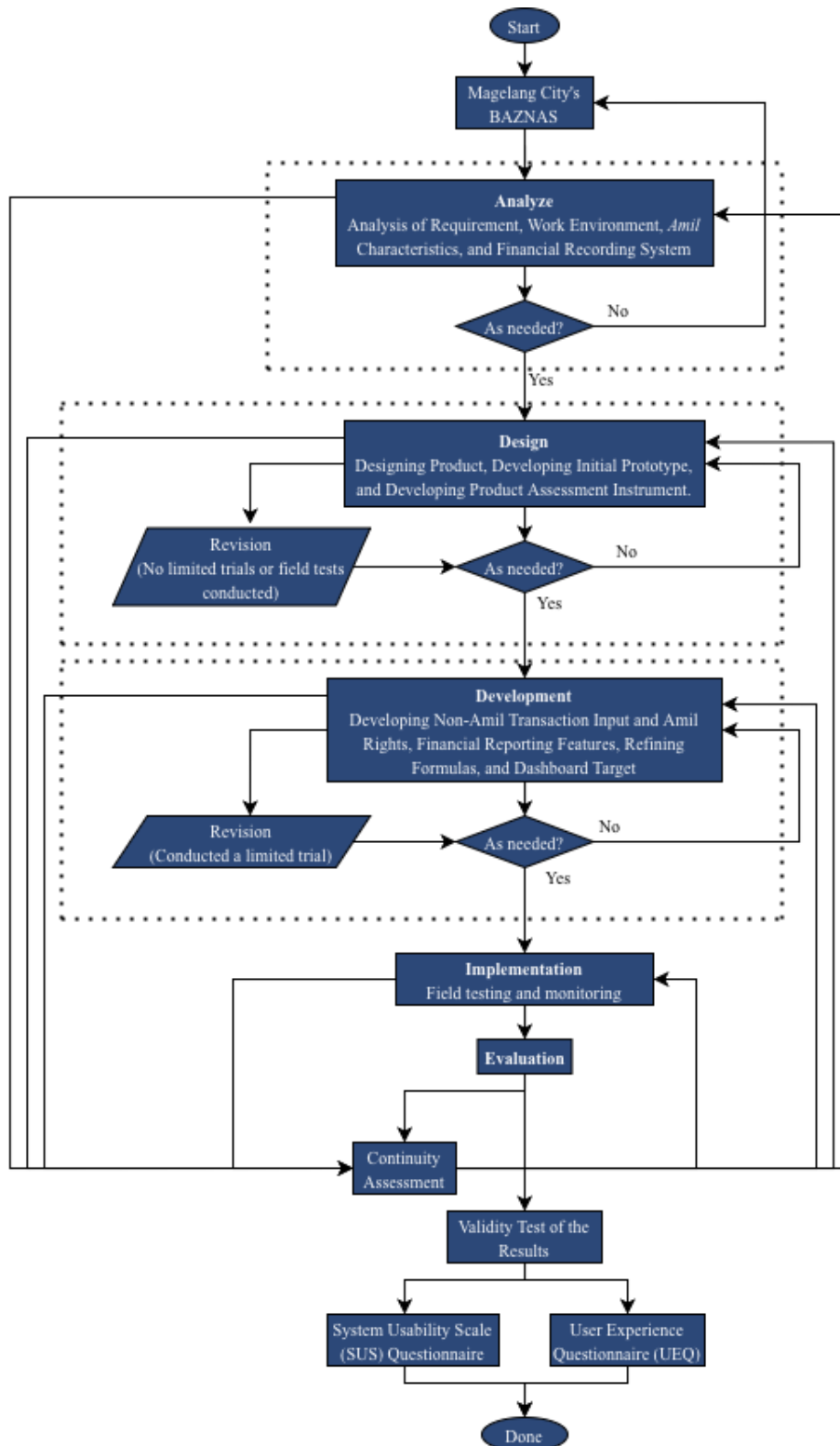


Figure 1. Conceptual Framework of the Study

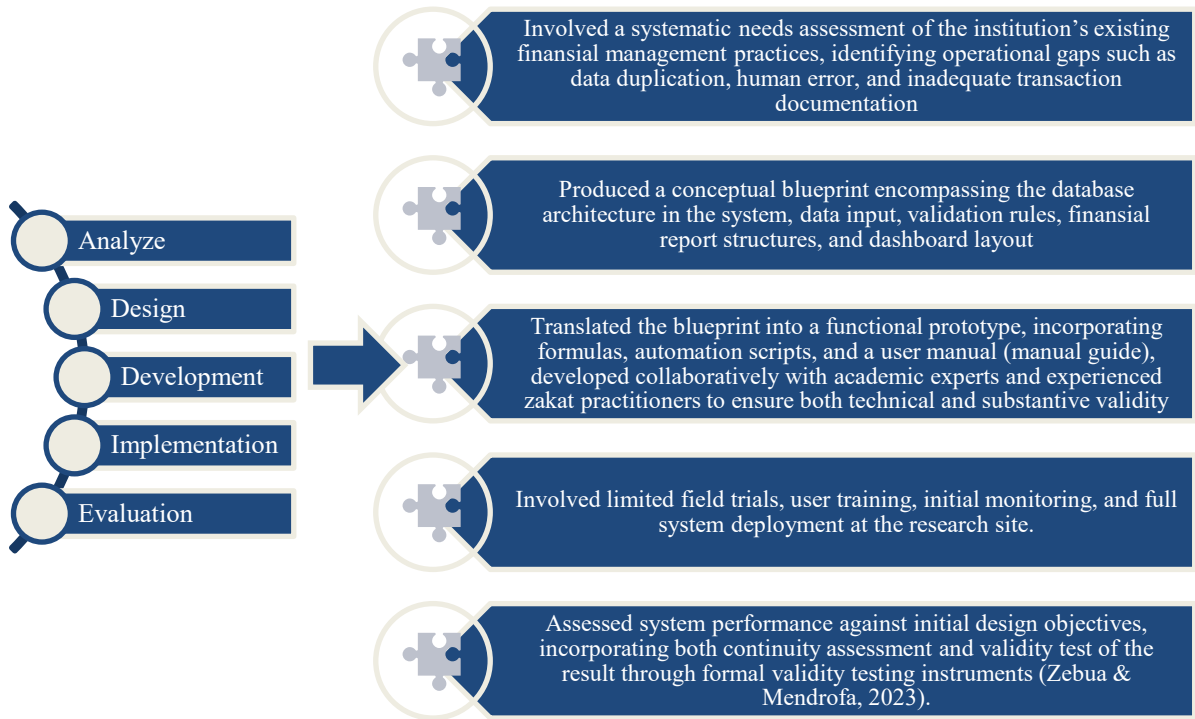


Figure 2. ADDIE Model of the Study

3.5 Data Collection

This study employed a data collection with three complementary methods, operationalised through unstructured interviews, participatory observation, and documentation analysis. The three complementary methods were operationalised as follows.

Table 1. Data Collection of the Study Approach

Data Collection of the Study	Description
Unstructured Interviews	Conducted with six <i>amil</i> involved in the institution's accounting and financial reporting process, covering system integration needs, operational challenges, and the urgency of cloud-based adoption (Patton, 2002).
Participatory Observation	Positioning the researcher as a participant-observer to obtain insider perspective while maintaining analytical objectivity (Creswell, 2015).
Documentation Analysis	Conducted on institutional records including annual financial reports, standard operating procedures, transaction receipts, accountability reports, and management meeting minutes (Marlina et al., 2024).

Source: Author Documentation

3.6 Validity Test of The Result

This study assessed a system validity with two internationally recognised instruments, operationalised through System Usability Scale (SUS) Questionnaire and User Experience Questionnaire (UEQ). The two recognised instruments were operationalised as follows.

Table 2. Approaches of Validity Test of the System

Validity Test Instruments	Description
System Usability Scale (SUS) Questionnaire	Aims to measure usability of the system. This instrument was originally developed by Brooke (1996), that consisting of ten items adapted to the cloud-based system context and administrated to six <i>amil</i> as a respondents.
User Experience Questionnaire (UEQ)	Aims to measure user experience in terms of expectations, feelings, and attitude before, during, and fater using the system (Prasetya et al., 2023). This instrument was originally developed by Laugwitz et al. (2008), that comprising 26 items across six scales, such as attractiveness, perspicuity, efficiency, dependability, stimulation, and novelty which rated on a seven-point semantic differential scale (Melissourgos & Katsanos, 2025).

Source: (Brooke, 1996; Laugwitz et al., 2008).

4. Results and Discussion

4.1 System Development

Prior to validity assessment, it is necessary to establish the developmental context within which the system was produced. The cloud-based accounting information system was developed through five sequential ADDIE stages at a municipal-level zakat institution in Magelang City, Central Java, Indonesia. The system architecture comprises 21 integrated components organised across four functional clusters, namely daily transaction input (non-*amil* and *amil* fund streams), annual recapitulation, target dashboard (Annual Work Plan and Budget/RKAT), and automated financial reporting, including the Statement of Financial Position, Statement of Fund Changes, Cash Flow Statement, Collection Report, Distribution Report by Programme, Distribution Report by *Asnaf*, *Amil* Rights Report, and Regional Budget Fund Report.

A design innovation embedded in the system is the validation status mechanism, such as transactions without a completed validation entry are automatically excluded from financial calculations, institutionalising an internal control checkpoint at the point of data entry. This directly addresses the human error and data integrity deficiencies identified during the analysis stage, and operationalises the integration mandate of Article 2, Indonesian Law No. 23 of 2011. System implementation was conducted across three iterative sessions (24 December 2025, 2 January 2026, and 5 January 2026), with revisions made at each session based on *amil* and supervisory feedback.

4.2 System Usability: SUS Result and Analysis

Usability was assessed using the System Usability Scale (SUS), administered to six *amil* respondents following full system deployment. SUS scores were calculated using Brooke's (1996) standard formula, producing individual scores and a composite mean, presented in Table 3.

Table 3. SUS Scores per Respondent

Respondent	SUS Score	Acceptability Category
A	67.5	Marginal
B	77.5	Acceptable
C	55.0	Marginal
D	60.0	Marginal
E	67.5	Marginal
F	57.5	Marginal
Mean (M)	64.17	Marginal
Standard Deviation (SD)	8.32	

Source: Primary data processed by authors.

Acceptability classification follows Bangor et al. (2008) and Brooke (1996)

The composite SUS mean (M) of 64.17 (SD = 8.32) falls within the Marginal acceptability range (50–70) and corresponds to the adjective rating of "OK" on the Bangor et al. (2008) adjective scale. Individual scores ranged from 55.0 (Respondent C) to 77.5 (Respondent B), with only one respondent achieving an "Acceptable" threshold (≥ 70). This score distribution reflects meaningful variance in user experience across the *amil* population, consistent with the diverse digital literacy profiles identified during the analysis stage.

Per-item contribution analysis illuminates the specific usability strengths and weaknesses underlying the composite score. Item 6 (system consistency) generated the highest contribution (9.2 points out of a possible 10), confirming that the system behaves reliably and predictably (Lewis, 2018). Items 1, 3, 5, and 7 (behavioural intention to reuse, task completion ease, navigational integration, and new-user learnability) each contributed 6.2 points, indicating uniformly solid performance on functional usability dimensions. Conversely, Item 4 (technical dependency) generated the lowest positive contribution (4.2 points), with 67% of respondents reporting that they had sought technical assistance during system use. Item 8 (errors and obstacles) similarly produced moderate scores, with 67% of respondents encountering operational errors or difficulties during use.

These findings present a differentiated usability profile, likely the system achieves strong functional consistency and task-enabling capability, but falls short of intuitive, self-sufficient operation (Venkatesh et al., 2003). The Marginal composite score, while below the "Good" threshold, is theoretically and contextually significant for two reasons. First, the six-respondent represents an expert user population with direct institutional domain knowledge. Second, Marginal-range SUS scores contexts are well-precedented in organisational system implementations, particularly where users have transitioned from manual to digital workflows (Bangor et al., 2008).

4.3 User Experience: UEQ Result and Analysis

User experience was evaluated using the User Experience Questionnaire (UEQ), comprising 26 items across six sub-scales rated on a seven-point semantic differential scale. Scale scores were computed as mean ratings converted to the -3 to $+3$ UEQ range, and interpreted against the UEQ benchmark dataset (Laugwitz et al., 2008; Schrepp et al., 2017). Results are presented in Table 4.

Table 4. UEQ Scale Scores and Benchmark Classification

Respondent	Items	SUS Score	Acceptability Category
Attractiveness	1, 12, 14, 16, 24, 25	+1.694	Outstanding
Perspicuity	2, 4, 13, 21	+1.541	Outstanding
Efficiency	9, 20, 22, 23	+1.583	Outstanding
Dependability	8, 11, 17, 19	+1.583	Outstanding
Stimulation	3, 6, 15, 18	+1.833	Outstanding
Novelty	5, 7, 10, 26	+1.208	Excellent
Overall Mean (OM)		+1.574	Outstanding

Source: Primary data processed by authors.

Benchmark classification follows Schrepp et al. (2017):

Below Average (<0.5), Above Average (0.5-0.8), Good (0.8-1.0), Excellent (1.0-1.5), Outstanding (>1.5).

The overall UEQ mean of +1.574 classifies the system as Outstanding, with five of six sub-scales achieving the Outstanding threshold and only Novelty classified as Excellent. These results, interpreted individually, reveal a nuanced and data-grounded picture of the system's experiential quality.

Table 5. User Experience Results

UEQ Scale	Score	Results
Attractiveness	OM: +1.694 (Outstanding)	Encompasses that the items assessing whether the system is enjoyable, good, likeable, pleasant, attractive, and user-friendly (items 1, 12, 14, 16, 24, 25). The highest-scoring items were "good" (item 12: +2.667), "friendly" (item 25: +2.500), and "attractive" (item 24: +2.333), indicating that users hold strongly positive overall impressions of the

		system. The lowest-scoring item was "enjoyable" (item 1: +1.000) and "not annoying" (item 16: +0.833), suggesting that while the system is broadly well-regarded, its hedonic appeal remains moderate.
Perspicuity	OM: +1.541 (Outstanding)	Measures the system's clarity, learnability, ease of understanding, and freedom from complexity (items 2, 4, 13, 21). Item 4 ("easy to learn") scored the highest within this scale (+2.833), corroborating the SUS finding that 100% of respondents confirmed task completion capability and strong confidence in new-user learnability. Item 13 ("not complicated"/ simplicity), however, scored the lowest within the scale (+0.166), indicating that while the system is learnable, certain modules are perceived as moderately complex, a finding consistent with the SUS Item 2 result showing that 50% of respondents experienced some degree of feature-related confusion.
Efficiency	OM: +1.583 (Outstanding)	Captures the system's operational speed, practicality, efficiency, and organisational quality (items 9, 20, 22, 23). Item 9 ("fast") and item 23 ("organised") both scored strongly (+2.500), confirming that the system's automated calculation and integrated architecture deliver tangible time savings relative to the pre-existing fragmented workflow. Items 20 ("efficient") and 22 ("practical"), however, scored lower (+0.667 each), reflecting residual friction in certain operational.
Dependability	OM: +1.583 (Outstanding)	Assesses the system's predictability, supportiveness, security, and expectation-meeting quality (items 8, 11, 17, 19). Items 17 ("secure") and 19 ("meets expectations") scored identically at +2.500, indicating strong user confidence in system reliability and output accuracy. Notably, item 11 ("supportive" rather than obstructive) scored the lowest within the scale (+0.499), with 17% of respondents perceiving the system as occasionally obstructive. This finding warrants contextual interpretation, given that the system introduced mandatory validation steps and structured data entry constraints that did not exist in the previous workflow, a degree of perceived obstruction is theoretically expected during the initial adoption phase and is anticipated to diminish with continued use (Davis, 1989). The security item's strong score (+2.500) is particularly significant given that the system handles public trust funds, where perceived data security is directly linked to institutional <i>amanah</i> (Ghani et al., 2024).
Stimulation	OM: +1.833 (Outstanding)	Measures the system's motivating, creative, engaging, and exciting qualities (items 3, 6, 15, 18). Item 3 ("creative") scored +2.833, and item 18 ("motivating") scored +2.500, reflecting strong user recognition that the system introduces a genuinely novel and capability-enhancing solution to the institution's financial management challenges. Item 6 ("not boring") scored -0.168, indicating that a minority of respondents found the system's repetitive data entry tasks somewhat monotonous. This is an expected characteristic of transaction-recording systems rather than a design failure, but it nonetheless identifies an opportunity for automation enhancement in future iterations.
Novelty	OM: +1.208 (Excellent)	Assesses the system's inventiveness, interest, leading-edge quality, and innovativeness (items 5, 7, 10, 26). Items 5 ("valuable") and 10 ("inventive") scored strongly (+2.833 and +2.667 respectively), confirming that users recognise the system as a meaningful technological advancement over previous practice. Item 26

("innovative" vs. "conservative"), however, scored -1.168 , indicating that a substantial portion of respondents perceive the system's interface and interaction paradigm as relatively conventional. This finding is theoretically coherent, while the deployment of a cloud-based AIS in a previously manual institution is institutionally innovative, its operational interface does not radiate technological novelty to users. Item 7 ("interesting") scored $+0.500$, reflecting moderate but not exceptional visual engagement.

Source: Primary data processed by authors.

4.4 Discussion

The empirical evidence for system integration is the most robust finding of this study. Data from SUS Item 5, where 100% of respondents confirmed navigational ease between functions, and the UEQ Efficiency scale mean of $+1.583$ (Outstanding) jointly confirm that the 21-component architecture successfully delivers the integrated financial management infrastructure mandated by Article 2 of Indonesian Law No. 23 of 2011. The validation status mechanism operationalizes the integration principle at the transactional level, ensuring that the chain of evidence—from individual transactions to consolidated financial reports—is internally consistent and traceable. This directly addresses the audit trail deficiencies that rendered pre-existing systems unfit for regulatory compliance (Amilahaq et al., 2021). Furthermore, the UEQ Efficiency scores for items 9 and 23 (both $+2.500$) confirm that users perceive the integrated architecture as genuinely time-saving and organizationally superior to the fragmented baseline. These findings align with Hadi et al. (2024) and Wahyudi et al. (2023), who document significant efficiency gains resulting from digital zakat system adoption. The findings regarding accountability are more nuanced. The SUS Item 6 contribution of $9.2/10$ (the highest single-item score) and the UEQ Dependability scale mean of $+1.583$ (Outstanding) establish that the system provides the foundational conditions for accountable reporting: consistent behavior, predictable outputs, and high user trust in calculation accuracy. While these conditions are theoretically necessary, they are not sufficient for full accountability. True accountability requires not only capable system outputs but also confident, independent users who can produce, interpret, and endorse those outputs without external mediation (Nordin et al., 2020). The marginal SUS composite score of 64.17 and the findings from Item 4 indicate that full user autonomy has not yet been achieved. This introduces a significant dependency risk: should key technical personnel be unavailable, the system's accountability function may be interrupted. This reinforces the arguments of Febriandika et al. (2023) and Nasution et al. (2024), who demonstrate that accountability failures in zakat institutions often stem from human capital constraints rather than mere technical inadequacy.

Interpreted through the lens of Islamic Philanthropy Governance Theory (Ghani et al., 2024; Nordin et al., 2020), the system's UEQ profile maps directly onto core governance design principles. The Outstanding scores for Attractiveness ($+1.694$) and Stimulation ($+1.833$) reflect a user experience aligned with the pursuit of *ihsan* (excellence in institutional service). Similarly, the Outstanding Dependability score ($+1.583$), particularly regarding the security item ($+2.500$), demonstrates that users perceive the system as a trustworthy custodian of public funds (*amanah*). The Efficiency score ($+1.583$) further validates that the system advances the operational effectiveness central to Islamic governance frameworks. Conversely, the system's shortcomings—specifically the low score for Novelty (Item 26: -1.168) and the moderate score for Perspicuity (Item 13: $+0.166$)—correspond to a gap in the principle of justice in access; the system does not yet serve all user competency levels with equal facility. From a Maqashid Shari'ah perspective, the quantitative evidence supports contributions to three of the five primary objectives. The validation mechanism and audit-trail architecture directly serve *hifz al-mal* (preservation of wealth) by preventing fund misappropriation and calculation errors, as validated by the SUS Item 6 consistency data (83% reporting zero inconsistencies). The system's role in facilitating the orderly discharge of zakat obligations serves *hifz al-din* (preservation of religion), supported by the UEQ Stimulation scale's high creativity and value scores (both $+2.833$). Additionally, the UEQ Dependability item 16 ($+0.833$, "comfortable") and the SUS Item 5 navigational ease data collectively serve *hifz al-nafs* (preservation of wellbeing) by reducing the cognitive burden on amil users. However, the contribution to *hifz al-'aql* (preservation of intellect) is less established; the marginal SUS score and the technical dependency suggest that the system does not yet fully empower the intellectual autonomy of amil users in financial management.

The overarching argument of this study is supported but contextualized by the data. The conceptual-practice divide is bridged at the architectural level (integration achieved) and at the governance quality level (dependability and efficiency are Outstanding), but it is only partially bridged at the human capital level, where usability remains marginal and technical dependency persists. This finding advances the literature by challenging the framing of IT adoption as a binary governance solution (Nashirudin et al., 2025; Rahman et al., 2025). Instead, it highlights the critical role of sustained capacity building and iterative refinement in realizing the full potential of digital tools. The divergence between SUS and UEQ scores is theoretically significant: users find the system experientially valuable and organizationally beneficial, yet not fully ergonomically accessible. This suggests that the system's current governance contribution operates primarily through structural outputs (automated reports) rather than user empowerment—a distinction with important implications for future implementation strategies.

4. Conclusion and Recommendation

This study provides empirical evidence that a cloud-based accounting information system, developed through the ADDIE model, can substantively bridge the conceptual-practice divide in zakat governance, but with important qualifications. At the architectural level, the 21-component integrated system successfully operationalises the integration and accountability mandates of Indonesian Law No. 23 of 2011, as confirmed by the UEQ overall mean of +1.574 (Outstanding), with Stimulation (+1.833), Attractiveness (+1.694), Efficiency (+1.583), Dependability (+1.583), and Perspicuity (+1.541) all classified as Outstanding, and Novelty (+1.208) as Excellent. At the human capital level, however, the SUS composite score of 64.17 (SD = 8.32, Marginal), with 67% of respondents requiring technical assistance and 67% encountering operational errors, so these findings indicate that self-sufficient usability has not yet been fully achieved across the *amil* user. This SUS–UEQ divergence is itself a substantive finding, the system delivers outstanding governance value through its structural outputs, but has not yet sufficiently reduced the interaction barrier for users with heterogeneous digital competencies. Practically, the system provides a replicable governance infrastructure for zakat institutions seeking to operationalise *amanah* and accountability through digital means. Theoretically, this study extends the ADDIE model into Islamic philanthropy governance and advances the operationalisation of Islamic Philanthropy Governance Theory as an empirically testable framework. Future research should prioritise multi-institutional deployment to test scalability, interface redesign to address the Marginal SUS score, and longitudinal assessment to establish whether system adoption demonstrably improves zakat mobilisation outcomes.

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