

From Records to Accountability: Digital Zakat Systems in A Systematic Review with Descriptive Author Keyword Analysis

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Keywords: Accountability; accounting information systems; author keyword analysis; systematic literature review; zakat	ABSTRACT This review examines how digital zakat research addresses transaction recording, fund traceability, reporting/disclosure, fund-related internal controls, and accountability assessment. A systematic review synthesized 21 publication reports selected from a Scopus search, cross-classifying fund information processes and accountability assessment by the evidence each report provides. Author keyword co-occurrence was analyzed descriptively. Nine reports sought for full text were unavailable and were not included. Transaction recording appeared in 17 reports, fund traceability and reporting/disclosure in 14 each, and fund-related internal controls in 13. Two reports assessed accountability at limited levels; none established achieved institutional accountability. Fifteen reports provided design/proposed evidence for at least one function, whereas evidence verifying institutional accounting outcomes was less extensive. The synthesis identifies which records and checks would be needed to evaluate reporting reliability, operating controls, and institutional responses to questioned fund decisions; it does not establish that digital systems achieve those outcomes. By pairing zakat fund information processes with source-traced evidence types, the review distinguishes proposed system capability from evidence sufficient to evaluate reliable fund information and institutional answerability within the selected corpus.
Kata Kunci: akuntabilitas; sistem informasi akuntansi; analisis kata kunci penulis; tinjauan literatur sistematis; zakat	ABSTRAK <i>Tinjauan ini mengkaji bagaimana penelitian zakat digital membahas pencatatan transaksi, keterlacakan dana, pelaporan/pengungkapan, pengendalian internal terkait dana, serta penilaian akuntabilitas secara terpisah. Tinjauan sistematis ini mensintesis 21 laporan publikasi yang dipilih dari pencarian Scopus, dengan mengklasifikasikan silang proses informasi dana dan penilaian akuntabilitas berdasarkan bukti yang disajikan dalam setiap laporan. Kemunculan kata kunci penulis dianalisis secara deskriptif. Sembilan laporan yang teks lengkapnya dicari tidak tersedia dan tidak disertakan. Pencatatan transaksi muncul dalam 17 laporan, keterlacakan dana dan pelaporan/pengungkapan masing-masing dalam 14 laporan, serta pengendalian internal terkait dana dalam 13 laporan. Dua laporan menilai akuntabilitas pada tingkat terbatas; tidak ada yang menetapkan akuntabilitas institusional yang telah tercapai. Lima belas laporan menyajikan bukti desain/usulan untuk setidaknya satu fungsi, sedangkan bukti yang memverifikasi hasil akuntansi institusional masih belum sebanyak itu. Sintesis ini mengidentifikasi catatan dan pemeriksaan yang diperlukan untuk mengevaluasi keandalan pelaporan, pengendalian operasional, dan respons institusi terhadap keputusan dana yang dipertanyakan; sintesis ini tidak menetapkan bahwa sistem digital mencapai hasil tersebut. Dengan memasangkan proses informasi dana zakat dengan jenis bukti yang ditelusuri sumbernya, tinjauan ini membedakan kapabilitas sistem yang diusulkan berdasarkan bukti yang memadai untuk mengevaluasi keandalan informasi dana dan akuntabilitas institusional dalam korpus terpilih.</i>
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INTRODUCTION

An accounting module for zakat management can connect transaction entries to journals, a general ledger and a trial balance (Mira et al., 2020). These functions show how records can be processed, but they do not establish whether an institution's receipts and distributions are complete, correctly classified, or reconciled with its reports. This review asks how evidence about digital system functions supports claims about the stewardship of zakat funds.

Publicly available information presents a related evidential boundary. Abidin et al. (2014) examined 13 accessible websites among 14 Malaysian zakat institutions identified at the time of their study. The websites provided information on collection and distribution, but none provided financial statements. This observation concerns the public outputs available during that study; it does not assess the institutions' underlying accounting systems. For zakat accounting, the question is therefore how records of receipts and allocations become information that can be checked and used to explain the management of funds.

The selected studies examine different parts of the fund information process. Afif et al. (2025) report transaction processing in technical test scenarios. Suzianti et al. (2020) evaluate users' interaction with a zakat information system interface, whereas Hadi et al. (2024) examine survey-based relationships among digital management, reporting transparency, payroll, and perceived accountability. Technical processing, usability, and survey associations are informative, but they do not measure the same institutional outcome.

Studies of accounting workflows and controls offer a further distinction. Gantira Mira et al. (2020) describe an accounting module configuration, while Handriani et al. (2019) propose procedures for authorization and documentation during distribution. Neither report establishes how consistently transactions are reconciled, or how controls operate over reporting periods. Together with the website observation and survey evidence, these reports leave unresolved which links between system capabilities, reliable financial information, and institutional accountability have been evaluated. The comparison is confined to the evidence in the selected literature; it does not claim that no such evaluations exist elsewhere.

The review addresses this gap by pairing source-traced evidence types with four zakat fund information processes: transaction recording, fund traceability, reporting/disclosure, and fund-related internal controls, and a separate accountability assessment category. This pairing identifies where evidence of digital system capability falls short of the evidence needed to assess reconciled fund records, reliable institutional reporting, operating controls, or institutional answerability. The categories and evidence types are not presented as new, and the proposed links do not establish a causal sequence supported by the reviewed studies.

Three questions guide the review. First, which zakat fund information processes are examined in the retrieved literature? Second, what evidence supports claims about transaction recording, fund traceability, reporting/disclosure, fund-related internal controls, and accountability assessment? Third, which evaluation designs could test the links between system capabilities and accountable fund management? The review addresses these questions through critical appraisal and synthesis of processes and evidence from 21 publication reports. Author keyword analysis describes the selected corpus. Its conclusions are limited by a single database search and by reports whose full texts could not be retrieved.

LITERATURE REVIEW

Theoretical Background

This review considers accounting information systems within the zakat fund cycle: recording receipts, linking them to allocations and distributions, and producing information for reporting and oversight. A process model can specify the data required at the receipt and distribution stages (Rahmatya & Wicaksono, 2018), while a configured accounting module can carry entries into journals, a general ledger and a trial balance (Gantira Mira et al., 2020). The distinction matters because a model describes an intended workflow, whereas a module demonstration establishes what an artifact can generate under the conditions examined. Neither alone verifies an institution's accounts. The review therefore includes a technology study when it addresses an identifiable accounting function, rather than on the basis of its technology label or payer adoption alone.

The analysis distinguishes four overlapping fund information processes. Transaction recording concerns capturing and classifying receipts and disbursements; fund traceability concerns the links among receipt, allocation, and distribution records. Reporting/disclosure concerns the preparation or disclosure of financial information. Fund-related internal controls concern authorization, access restrictions, separation of responsibilities, and exception handling; a proposed distribution procedure identifies possible control points without establishing that they operate (Handriani et al., 2019). Accountability assessment is a separate category for evidence about whether fund management is perceived as accountable or can be examined, explained, and scrutinized. Its coding does not establish achieved institutional accountability. These categories do not imply that all four processes operate in any institution or that published totals alone establish accountability.

Previous Study

The proposed connection between recording and reliable reporting depends on the records between them. Identifiable transactions and consistent classifications could make receipts traceable to distributions, but the integrity of that link would still require checks of the underlying events and reconciliations. The accounting module demonstration described by Gantira Mira et al. (2020) and Afif et al.'s (2025) processing of 1,212 test transactions examine different capabilities; neither validates completeness or reconciliation of an institution's production records. The link from recording to reliable reports therefore remains conditional; the reviewed studies do not establish a positive effect.

The proposed link between reporting, controls, and accountability is also conditional. An institution would need information that can be reviewed and a way to examine the decisions behind it; designed authorizations would also need to operate in practice. Handriani et al. (2019) specify distribution procedures, while Abidin et al. (2014) observe that institutional websites include collection and distribution information but no financial statements at the time. Neither study tests how institutions respond to a discrepancy. Survey results do not close that gap: Hadi et al. (2024) examine perceived accountability, and their reported payroll-to-accountability path is not statistically significant. The available measures warrant examining this relationship, but they do not justify a general positive-effect hypothesis about digital systems and institutional accountability.

A report's claims must be read against the evidence it provides. A task-based interface assessment measures interactions with an application rather than the accuracy of the resulting accounts (Suzianti et al., 2020). Survey constructs such as user competence, system quality, and information quality address conditions associated with using a system, rather than independently reconciled fund balances (Nurhayati et al., 2023). An institutional website observation, in turn, describes information made visible to readers, not the reliability of internal entries (Abidin et al., 2014). These distinctions preserve the value of design, user, and observational studies without treating one form of evidence as a substitute for another or imposing a universal ranking of methods.

Research Framework

The review consequently uses two analytical dimensions: the fund information process or accountability assessment addressed, and the basis of evidence offered. For each category, a report may specify a proposed process, demonstrate or test an artifact, assess user tasks, observe institutional outputs, or estimate an association among respondent-based constructs. The paired dimensions ask what was observed and which further checks a claim about accounting reliability or accountability would require. They guide the completed source-level synthesis; they do not constitute a tested theory, an effect estimate, or a set of numbered hypotheses. Section 3 sets out the selection, extraction and appraisal procedures needed to apply these distinctions to the selected publication reports.

METHOD

This study combines a systematic review of publications on zakat fund information systems with a descriptive analysis of author keyword co-occurrence. The unit of synthesis is a publication report, not an institution, a transaction, or an independent effect estimate. We consolidated search, eligibility, and retrieval decisions from working records in a retrospective audit; no protocol was prospectively registered. The review uses the four fund information processes, the accountability assessment category, and the evidence distinctions defined in Section 2 to interpret what the selected reports examine.

Scopus was the sole bibliographic database used to screen the corpus. The export dated 25 September 2026 used TITLE (zakat OR zakah OR BAZNAS OR "amil zakat") together with a TITLE-ABS-KEY block covering accounting information systems, related information system terms, accounting modules, ERP, digital platforms, transaction

recording, receipt and distribution, and blockchain. Supplement S1 reproduces the complete query verbatim. No additional limits were applied for year, document type, language, subject area, source, or publication stage. The export contained 90 unique Scopus EIDs, with no duplicate records removed; earlier exploratory exports were not pooled with it. The export date does not establish the dates of every subsequent full-text retrieval attempt.

A report qualified when it addressed an identifiable zakat fund recording, tracing, reporting, or fund-specific control process. An observed digital reporting output relevant to zakat funds also met this criterion. Original institutional studies, process models, conceptual AIS models, prototypes, and evaluations could qualify when they addressed such a process or output. Reports limited to payer intentions, calculations of zakat due on particular assets, general welfare outcomes, or technology adoption without an accounting function were outside scope. Reviews without an original relevant AIS model or directly relevant institutional analysis, and general procurement systems unconnected to the zakat fund cycle, were also excluded. This rule distinguishes an observation of information published on institutional websites from a study of preferred disclosure items, and a zakat accounting module from a general purchasing module. Weak reporting was noted during appraisal rather than used as a reason to discard a topically eligible report.

Titles and abstracts of 90 unique records were screened; 56 were excluded, leaving 34 reports sought for full text. A complete log of retrieval attempts and their dates was not preserved. Nine reports could not be retrieved and were not assessed based on assumed full-text content. Of 25 reports assessed for eligibility, four were ultimately excluded, and 21 publication reports were included. One of the four exclusions, R03, was a subsequent protocol-level correction of an originally recorded inclusion: verification of its complete primary text did not identify a zakat fund recording, tracking, reporting, or fund-specific control process. The original screening decisions and this later correction remain distinguishable in the final reconciliation record. This subsequent verification was not an independent human re-screen.

The researcher conducted screening, extraction, and reconciliation manually. Independent duplicate screening and extraction were not established, and no inter-rater agreement statistic was calculated. The study-level appraisal records bibliographic identity, setting, design or test unit where reported, the system or process examined, accounting function, reported outcome, limits on inference, and source locations. Appraisal notes address four descriptive domains: setting and sampling, specification of measures or artifacts, transparency of evaluation or analysis, and correspondence between the evidence and the claim. These were working criteria, not a validated risk-of-bias scale or a numerical quality score. The lack of independent duplicate screening, incomplete records of retrieval attempts, and differences in the traceability of primary reports remain methodological limitations. The authors documented subsequent source verification separately from the original screening decisions.

The narrative synthesis classified each included publication report against four potentially overlapping zakat fund information processes: transaction recording, fund traceability, reporting/disclosure, and fund-related internal controls, and a separate

accountability assessment category. For each supported category, we distinguished evidence as design/proposed, technically demonstrated, user assessed, institutionally observed or narrated, or quantitatively/statistically evaluated; a report could include more than one category or evidence type. “Not evidenced” marked a category-level absence, not a sixth evidence type.

A proposed reporting output was coded as reporting/disclosure only when report content or a substantive fund reporting workflow was described; a lone report view label did not suffice. Fund-related internal control required identifiable fund-specific authorization, access restriction, separation of responsibilities, validation, or exception handling; generic login alone did not suffice. User assessment was linked to a category only when the assessed task concerned that fund function. Institutional observation or narration (I) and quantitative or statistical evaluation (Q) describe the evidence basis; neither denotes a quality ranking or verified institutional effectiveness. Source descriptions, locations, and limits on inference informed each classification; Supplement S3 records source-level coding details.

Reports were counted at most once per category and once per evidence type, while the category $\times$ evidence table allowed separately supported multiple classifications. We distinguished proposed functionality and partial information paths from technical tests, user perceptions, and verified institutional outcomes. Findings were not statistically pooled because systems, settings, observation units and measures differed; publication reports were not assumed to represent independent institutional datasets.

The descriptive analysis drew author keywords from the 21 included Scopus EIDs; 17 reports supplied them. The final input was obtained by removing the subsequently excluded R03 from the original 22-record working set. Its author keyword field was empty, so this correction did not alter the verified keyword occurrences or co-occurrence edges. The documented thesaurus removes the nonspecific term information and merges information systems with information system, blockchain technology with blockchain, and smart contracts with smart contract. Under full counting, a term occurs at most once per report, and an unordered pair co-occurs at most once within a report. The descriptive network retains terms occurring in at least two reports; a threshold of three serves as a frequency sensitivity check. The reconciled term and edge counts are documented with the keyword data. Keyword co-occurrence describes language in the selected corpus, not accounting effectiveness.

RESULT AND DISCUSSION

Results

The search identified 90 distinct records. Title and abstract screening excluded 56, leaving 34 reports to be retrieved. Nine full texts were not obtained, and 25 reports were assessed for eligibility. Four were excluded after full-text assessment, including one report subsequently corrected from an earlier inclusion decision after protocol-level verification of its complete text. The final corpus comprises 21 publication reports (Figure 1). The nine reports not retrieved were not assessed for substantive eligibility or included in the synthesis.

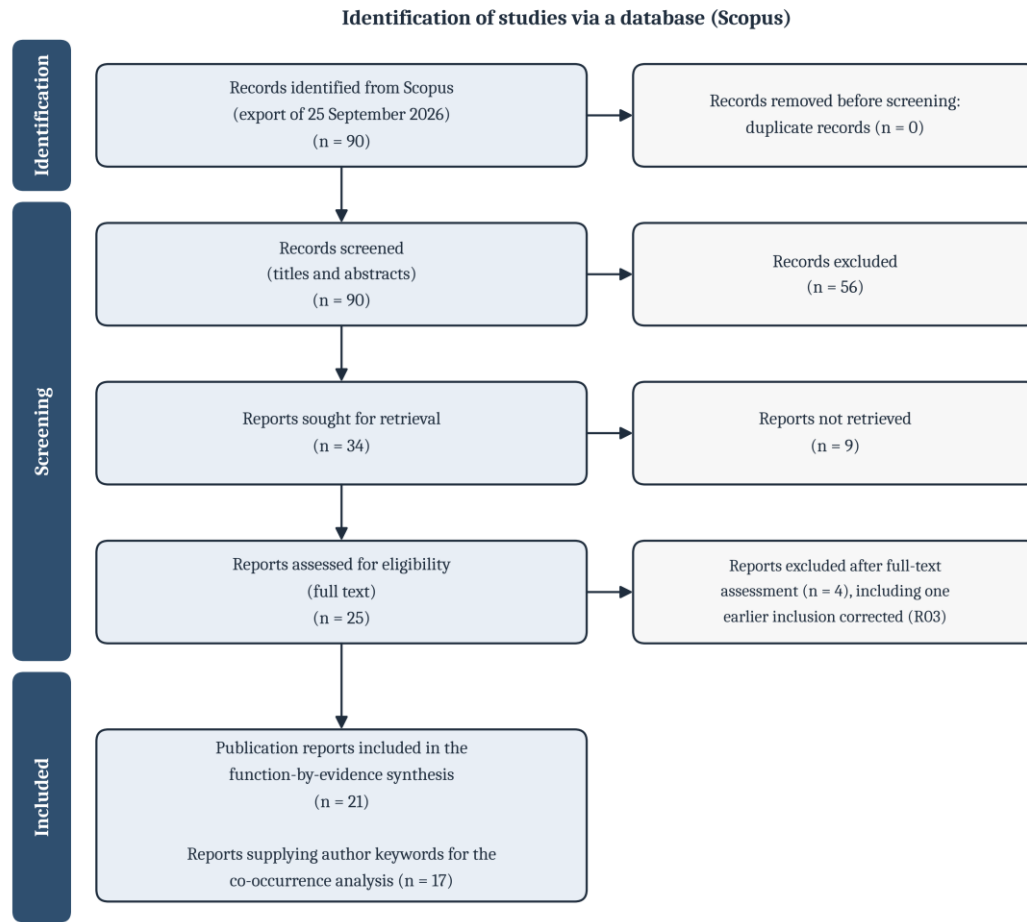


Figure 1. PRISMA 2020 Flow Diagram of the Selection of Publication Reports
(Source: Author's review process, 2026; layout adapted from Page et al., 2021)

The included corpus contains 13 journal articles and eight conference papers published between 2014 and 2025. Six reports were published in 2023, the largest single-year count in this selected corpus. Table 1 identifies the 21 reports and the types of function-linked evidence available from each. These are publication reports rather than necessarily independent institutional datasets. We did not verify a complete, mutually exclusive distribution by study country or research design and therefore did not report it.

Table 1. Included Publication Reports and Their Function-Linked Evidence

ID and report	Type	Documented system, process or observation	Evidence type(s) and source limit
R01 Komarudin et al. (2023)	Journal	Ziswaf transaction screens and specified reports	T, D; general user experience data are contextual, not function-linked U.
R02 Nurhayati et al. (2023)	Journal	User-reported quality of zakat reporting information	Q; perceptions, not inspected statements.
R04 Afif et al. (2025)	Conference	Tested blockchain transaction and status workflow	D, T, Q; controlled transactions, not live audited funds.
R05 Sukmana et al. (2017)	Conference	Proposed donation entry, recipient validation and information exchange	D only; process design and mockup, not operational effects.

ID and report	Type	Documented system, process or observation	Evidence type(s) and source limit
R06 Gantira Mira et al. (2020)	Conference	Configured ERP entry, journal, ledger, and trial balance examples	D, T; illustrative outputs, not verified production accounts.
R07 Sukmana et al. (2019)	Journal	Proposed RAZAR donation and beneficiary information flows	D; report view label alone does not establish reporting/disclosure.
R08 Musa et al. (2022)	Journal	Narrated collection, payer history and uneven reporting in examined settings	I; institution-specific accounts, not reconciled fund trails.
R09 Anggadini et al. (2023)	Journal	Proposed branch payments, donor history and consolidated reports	D; requirements/design, not tested integration.
R10 Rahmatya and Wicaksono (2018)	Conference	Receipt and distribution process and reporting model	D; no operational evaluation.
R11 Khairi et al. (2023)	Journal	Narrated collection procedure and proposed hashed collection data	D, I; collection stage coverage, not full chain traceability.
R12 Nazeri et al. (2023)	Journal	Proposed blockchain-enabled transaction and reporting model	D; no deployed system outcome.
R13 Hadi et al. (2024)	Journal	Survey modeled reporting transparency and accountability	Q; respondent constructs, not institutional audits.
R14 Khan (2023)	Conference	Proposed decentralized allocation and transaction design	D; no outcome evaluation.
R15 Handriani et al. (2019)	Conference	Narrated distribution practice and proposed documentation/approval SOP	D, I; prescribed checks, not tested control effectiveness.
R16 Abidin et al. (2014)	Journal	Historical observation of online reporting and public scrutiny information	I, Q; assessed accessible websites, not internal accounts.
R17 Akinlabi and Habeebullah (2022)	Journal	Prototype entry and recipient lookup screens	D, T; no validated production records.
R18 Doktoralina and Bahari (2018)	Journal	Conceptual bank accounting distribution report sequence	D; no evaluated implementation.
R19 Nurhayati and Susanto (2017)	Journal	Narrowly narrated reporting access at one unspecified institution	I; general AIS regression is contextual, not function linked Q.
R20 Setiawan et al. (2019)	Conference	Proposed fund use and reporting architecture	D; generic login screenshot is not a tested fund transaction.
R21 Suzianti et al. (2020)	Conference	Narrated SiMBA tasks and user assessed interface redesign	D, I, U; user tasks, not record/report accuracy.
R22 Muyassarrah et al. (2025)	Journal; review labelled	Interview attributed BAZNAS recording/tracking and Dompot Dhuafa allocation/verification narratives	I only; weak source to claim traceability, no verified effects.

Source: Author's synthesis of the included publication reports (2026)

Note (s): D = design/proposed; T = technically demonstrated; U = user assessed for an identified function; I = institutionally observed or narrated; Q = quantitatively/statistically evaluated for an identified function.

Across the 21 reports, transaction recording was identified in 17, fund traceability in 14, reporting/disclosure in 14, and fund-related internal controls in 13. Accountability was assessed in two reports, at different levels. A category count records the presence of source-supported evidence at any admissible level; it does not count verified institutional ledgers,

complete reconciled trails, or effective operating controls. Table 2 separates these four processes and accountability assessments by the type of evidence supplied for each.

Table 2. Included Reports by Fund Information Process or Accountability Assessment and Evidence Type

Accounting/information category	Reports / 21	D	T	U	I	Q
Transaction recording (TR)	17	12	4	1	5	1
Fund traceability (FT)	14	10	2	0	2	0
Reporting/disclosure (RD)	14	8	1	1	5	3
Fund-related internal controls (IC)	13	12	1	0	3	0
Accountability assessed (AC)	2	0	0	0	1	2

Source: Author's classification of the included publication reports (2026)

Fifteen reports specified at least one proposed function. For transaction recording, Rahmatya and Wicaksono (2018) set out receipt and distribution entry in a process model, while the Sukmana et al. (2017) prototype proposes donation recording alongside recipient validation and interinstitutional information exchange. Neither design demonstrates operational accuracy or achieved integration. Gantira Mira et al. (2020) illustrate configured Odoo entries and journal, ledger and trial balance outputs. Afif et al. (2025) report processing 1,212 transactions in controlled technical tests; that test does not inspect an institution's live fund balances. These examples illustrate different D, T, and Q classifications for recording; they do not share a measure of accounting accuracy.

Fund traceability evidence covers different portions of the zakat fund process. Designs link donation details to proposed recipient or amil records (Sukmana et al., 2017) and connect planned distribution documents with reporting steps (Handriani et al., 2019). Musa et al. (2022) narrate payer facing payment history in one examined setting. The review labelled article by Muyassarrah et al. (2025) discusses BAZNAS transaction verification, recording and tracking, and a Dompot Dhuafa recipient verification rule, but the source to claim trail is weak; those descriptions are coded as institutional narrative, without verification of an operating real time system. None of these examples establishes a complete, independently reconciled donor to beneficiary fund trail.

Reporting/disclosure appears as a proposed output, an illustrated output, a reported institutional practice or a measured perception, depending on the source. Gantira Mira et al. (2020) show configured ledger and trial balance examples. Musa et al. (2022) narrate uneven reporting across the settings examined, including missing or imbalanced information. In an earlier Malaysian website assessment, Abidin et al. (2014) could examine 13 of 14 identified institutional sites: collection/distribution information was visible, while specified financial statements and auditor material were absent online in the observed period. The website assessment documents public availability at that time, not the completeness of offline accounts. Suzianti et al. (2020) assess user tasks in a redesigned SiMBA interface that includes transaction and reporting workflows; the task findings do not test the accuracy of report contents.

The 13 reports coded for fund-related controls largely specify or narrate decision points. Handriani et al. (2019) describe an existing approval sequence and propose a more detailed distribution procedure with managerial review and documentation. Sukmana et al.

(2017) locate beneficiary validation with the amil in a proposed workflow. Muyassarrah et al. (2025) describe a Dompot Dhuafa allocation and recipient verification rule, but provide no independently inspected execution record. The corpus coding does not equate these proposals and narratives with tested control effectiveness.

Accountability was assessed in R13 and R16, with distinct measures. Hadi et al. (2024) statistically model respondents' perceived accountability and reporting transparency; their payroll to accountability path ($\beta = -0.133$, $p = .087$) and the reported indirect digital management $\rightarrow$ perceived accountability $\rightarrow$ zakat growth acceleration path ($p = .080$) are not statistically significant in the published model. Abidin et al. (2014) directly assess information available on institution websites for public scrutiny and find gaps in online financial statement and auditor disclosure at the observation date. Thus, neither report documents achieved institutional accountability, and zero of the 21 included reports establish that outcome under the final coding.

Seventeen of the 21 reports contain author keywords. Their 94 listed keyword entries comprise 76 distinct lowercase forms before cleaning and 72 distinct terms after normalization. At a minimum frequency of two reports, ten terms qualify; nine connect to another selected term, while poverty alleviation is isolated in that thresholded network. The network has 20 distinct edges with a summed edge weight of 28 (the sum of node total link strengths is 56). At a minimum frequency of three reports, four terms qualify: zakat (eight), blockchain (three), information system (three), and Islamic finance (three). These values are calculated for the final included EIDs; the excluded R03 record had no author keywords. Co-occurrence describes author terminology and does not measure accounting system performance. The thresholded network is shown in Figure 2.

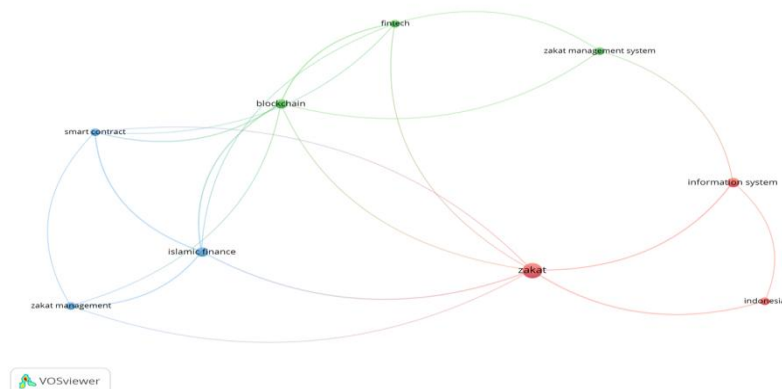


Figure 2. Keyword Co-occurrence Network of the Included Publication Reports
(Source: Authors' analysis of the included publication reports using VOSviewer, 2026)

Discussion

The function by evidence synthesis identifies a gap between specifying a zakat fund information process and demonstrating its institutional consequences. Proposed recording, tracing, reporting and control functions establish what a system is intended to do; a

configured accounting output, a technical transaction test and an institutional disclosure assessment examine different further steps. Rahmatya and Wicaksono (2018) model receipt and distribution processes; Gantira Mira et al. (2020) illustrate configured journal and trial balance outputs; and Afif et al. (2025) test transactions under controlled conditions. These sources cannot be combined into a finding about reconciled institutional accounts. These reports examine different units and outcomes; they do not offer competing estimates of one effect. The comparison locates each result within the accounting process and identifies what inference its evidence permits.

The records to accountability framing clarifies why those distinctions matter. A recorded donation would need a valid underlying event and classification. A traceable allocation would need identifiable links to distribution, while a reliable report would require consistent aggregation and reconciliation. An institution would need operating checks and a means of addressing questioned decisions. These are proposed conditions linking the four fund information processes and accountability assessment, not an observed causal sequence. Gantira Mira et al. (2020) illustrate the passage of entries into accounting outputs, while Handriani et al. (2019) specify distribution approvals and documentation. Neither evaluates the complete sequence through institutional response or remedy. The framework therefore identifies separate links for future testing without claiming that the review has validated an integrated theory of accountability.

Technical and user evaluations illustrate one boundary in that sequence. Afif et al. (2025) test transaction processing under controlled conditions, whereas Suzianti et al. (2020) assess interaction with transaction and reporting tasks in a redesigned interface. Both provide evidence relevant to using a digital system, but neither inspects the completeness of institutional receipts, the accuracy of distribution entries or the reconciliation of reports. Proposed blockchain processes and collection stage records likewise address only their specified segments (Khairi et al., 2023; Nazeri et al., 2023). These sources do not converge on a verified fund outcome: technical processing within a test, task usability and accounting reliability are different endpoints. This distinction also prevents the design only prototype of Sukmana et al. (2017) from being treated as evidence of achieved interinstitutional integration.

Institutional practice provides a second boundary. User reported system and information quality in Nurhayati et al. (2023), a reported association involving general AIS implementation in Nurhayati and Susanto (2017), and the SiMBA task findings of Suzianti et al. (2020) each address a different aspect of use. Musa et al. (2022) describe uneven reporting across the settings examined. Together, these studies make staff tasks, information quality, and organizational routines relevant to interpreting system use. They do not jointly test a mechanism connecting those conditions to accurate accounts. Differences in setting, respondent measures, and observable outputs limit direct comparison across these studies. Evidence about use should therefore inform the design of institutional evaluations without being substituted for such evaluations.

The accountability evidence makes the inferential limit particularly clear. Hadi et al. (2024) model respondents' perceived accountability, including a payroll to accountability path that is not statistically significant. Abidin et al. (2014) instead inspect information

available for public scrutiny on institutional websites and identify missing financial and auditor disclosures at the time examined. The survey assesses perceptions and statistical associations; the website assessment identifies a limit on publicly accessible information. These findings are compatible with the review's distinction between reports being produced or perceived as transparent and an institution being able to explain and answer for fund decisions. Neither study assesses the full process of questioning a decision and documenting its resolution. In this zakat setting, describing accountability as an achieved outcome would require evidence at that institutional level; this requirement is the authors' interpretation of the review framework, not an outcome demonstrated by either study.

The conceptual contribution is consequently limited but specific. The paired classification distinguishes documented system capabilities from the evidence needed to assess reliable fund information or institutional answerability and identifies the checks each inference would require. It gives a conditional account of how these levels could be connected and which links remain untested; it does not establish a new causal pathway. The empirical contribution is the source traced comparison of heterogeneous publication reports rather than a pooled estimate of digitalization's effects. This distinction retains the informational value of models, prototypes, technical tests, surveys and institutional observations without assigning them an outcome they did not measure. It also confines the identified evidence gap to the selected, retrievable corpus rather than implying that no stronger evaluation exists elsewhere.

The comparison points to an evaluation agenda organized by observable accounting outcomes. Table 3 matches each question to a possible evaluation design and the records it would need to examine. The proposed evaluations address transaction entry verification, completeness of fund tracing links, report reconciliation, operation of controls and institutional responses to questioned decisions. These are proposed research designs, not procedures performed by the included reports or recommendations shown to improve institutional performance.

Table 3. Proposed Evaluations Arising from the Evidence Boundaries

Question	Possible evaluation design	Observable evidence
Does transaction recording improve?	Compare sampled entries before and after implementation in a comparable setting.	Missing or duplicate receipts, entry errors, and reconciliation exceptions.
Is fund tracing complete?	Follow sampled receipts through allocation approvals and distribution.	Matched identifiers, missing links, unresolved allocations and correction records.
Are reports reliable?	Examine successive reporting periods and trace reported totals to supporting records.	Completeness, agreement with ledgers and bank records, and reporting delays.
Do controls operate?	Test authorizations, access rights, and exception handling against transaction samples.	Unauthorized changes, approval breaches, and exception resolution.
Can stakeholders obtain an accountable response?	Combine documented decision/complaint processes with interviews and observation.	Access to explanations, responses to discrepancies and documented remedies.

Source: Author's proposed evaluation framework derived from the review synthesis (2026)

The author keyword analysis is descriptive. Co-occurring terms indicate how the selected publications describe their topics; they cannot establish that the corresponding technologies are deployed or effective. Keyword availability is incomplete within the corpus, and the smaller set retained at the higher occurrence threshold limits confidence in detailed cluster labels. The network therefore contextualizes the reviewed reports without replacing the source-level comparison of functions and outcomes or supporting claims about global research trends.

Several features limit these interpretations. The search used one database and required zakat-related terms in titles; potentially relevant work outside that query could be missed. Nine reports sought were unavailable in full and could not be assessed for substantive eligibility. The initial screening was retrospectively checked but was not independently duplicated by human reviewers, and detailed retrieval attempt dates were not fully preserved. One earlier inclusion was subsequently corrected to a full-text exclusion under the frozen criterion. Among retained reports, a design-only prototype (Sukmana et al., 2017) and a review labeled an institutional narrative with weak sources to claim traceability (Muyassarah et al., 2025) must remain at their respective evidence levels; other reports differ in measures and reporting clarity. These limitations prevent treating the synthesis as an exhaustive account of digital zakat research or a pooled estimate of institutional effectiveness. They do not alter the source-level distinctions demonstrated within the final included corpus.

Future Research Direction

The author keyword analysis, read together with the function-by-evidence classification, points to several directions for subsequent research. These directions are derived from the descriptive keyword network (Figure 2) and the distribution of evidence in Tables 1 and 2; they indicate where the selected corpus is thin, not where the wider literature is necessarily deficient. Table 4 links each bibliometric signal to the corresponding evidence gap and to a proposed research direction.

First, the vocabulary of the corpus is organized around the object of study and its technology rather than around accounting outcomes. Of the ten terms occurring in at least two reports, zakat, blockchain, information system and islamic finance are the most frequent, while the remaining terms refer to management systems, fintech, smart contracts, a country setting and poverty alleviation. None of the thresholded terms refers explicitly to accountability, internal control, reconciliation, audit or financial reporting, although these are the functions examined in this review. Future studies could therefore frame digital zakat systems explicitly as accounting information systems, state which recording, reporting or control function is evaluated, and relate system outputs to the applicable zakat accounting standards, such as PSAK 409 (formerly PSAK 109) in Indonesia or the AAOIFI standard on zakah. Consistent use of accounting terms in titles, abstracts and author keywords would also make such work easier to retrieve and synthesize.

Second, blockchain, fintech, smart contract, islamic finance and zakat management form two connected clusters in the network. In Table 1, the reports with blockchain based designs date from 2023 onwards, and most provide design or proposed evidence (Khairi et

al., 2023; Khan, 2023; Nazeri et al., 2023); only Afif et al. (2025) report a technical test, which used controlled transactions. The prominence of this vocabulary therefore exceeds the evidence available about operating systems. Subsequent research could move from architecture proposals to pilot or field evaluations that use institutional transaction data, examine how off chain receipts and distribution decisions are validated before they are written to a ledger, and reconcile on chain records with bank statements and published financial reports. An immutable record of an incorrect or unauthorized entry would not, by itself, strengthen accountability.

Third, the cluster linking zakat with information system and indonesia corresponds to a corpus in which identifiable settings are concentrated in Indonesia and Malaysia. Earlier information system reports specify process models, ERP configurations or interface designs (Rahmatya & Wicaksono, 2018; Gantira Mira et al., 2020; Suzianti et al., 2020), yet Table 2 records no user assessed or quantitative evidence for fund traceability or fund related internal controls. Institution based studies could follow implemented systems across several reporting periods and combine transaction sampling, control testing and staff interviews, applying the evaluation designs set out in Table 3. Comparative studies across institutional types, such as state zakat bodies, community based amil institutions and state religious councils, and in settings beyond Indonesia and Malaysia, would show whether observed differences reflect system design or regulatory and organizational context.

Fourth, poverty alleviation met the two report threshold but did not co-occur with any other thresholded term, and accountability was assessed in only two reports, through perceptions or publicly available website information (Abidin et al., 2014; Hadi et al., 2024). Within this corpus, distribution goals and system capability are therefore discussed largely in separate terms. Future research could examine whether traceable records from receipt to beneficiary support credible evaluation of distribution outcomes, and could develop measures of institutional answerability, such as documented responses to questions raised by muzakki, mustahik, regulators or auditors, rather than relying on perceived accountability scales alone. Such work should keep fund information quality and welfare outcomes analytically distinct, so that better records are not treated as evidence of poverty reduction.

Finally, the bibliometric evidence is itself limited by its size and source. Seventeen reports supplied author keywords, and only four terms remained at a three report threshold, which is too small a base for stable cluster interpretation or trend analysis. Later reviews could combine Scopus with Web of Science, Dimensions and national indexes such as SINTA or GARUDA, where much Indonesian zakat accounting research is published; follow a prospectively registered protocol with independent duplicate screening; and, once the corpus is sufficiently large, apply overlay visualization by publication year, bibliographic coupling or co-citation analysis to test whether the apparent shift from information system to blockchain vocabulary suggested by the publication dates in Table 1 persists. Bibliometric indicators should continue to be paired with source-level appraisal, because term frequency indicates research attention rather than the effectiveness of the systems described.

Table 4. Future Research Agenda Derived from the Keyword Network and Evidence Distribution

Bibliometric signal	Evidence gap (Tables 1–2)	Future research direction
Accounting terms (accountability, internal control, audit, reconciliation) are absent among the ten terms occurring in ≥ 2 reports.	Accountability assessed in 2 of 21 reports; none establishes achieved institutional accountability.	Frame studies as AIS evaluations against zakat accounting standards (PSAK 409; AAOIFI) and index them with accounting keywords. Pilot and field evaluations with live institutional data; validation of off-chain inputs; reconciliation of ledgers with bank and financial reports.
Blockchain, fintech, and smart contracts form connected clusters.	Blockchain designs date from 2023; mostly D evidence, one controlled T/Q test.	Multi-period institutional studies using the Table 3 designs; cross-institution and cross-country comparisons.
Zakat, information system, and Indonesia cluster together.	No U or Q evidence for fund traceability or internal controls; settings concentrated in Indonesia and Malaysia.	Connect receipt to beneficiary trails with outcome evaluation, keeping record quality and welfare outcomes distinct.
Poverty alleviation is isolated in the thresholded network.	Distribution goals are not linked to evidence on fund information.	Multi-database searches, registered protocol, duplicate screening, and overlay, coupling, or co-citation analysis as the corpus grows.
Small keyword base: 17 reports with keywords; four terms at ≥ 3 reports.	Single database; nine full texts not retrieved; no duplicate screening.	

Source: Author's synthesis of the author keyword analysis and Tables 1–3 (2026). Abbreviations as in Table 1.

CONCLUSION AND RECOMMENDATION

This review examined how digital zakat studies address transaction recording, fund traceability, reporting/disclosure, and fund-related internal controls, and what evidence supports these processes and accountability assessment. Across the 21 included publication reports, proposed fund information functions are more frequently represented than evaluations verifying reconciled records, operating controls, complete institutional reporting or achieved accountability. Technical tests, user assessments, institutional observations and narratives, and quantitative analyses provide different kinds of evidence and cannot be combined into a general estimate of improved fund management. The included accountability assessments concern respondent perceptions and the information available for public scrutiny, rather than demonstrated institutional accountability.

The review's conceptual contribution is a synthesis of fund information processes, accountability assessment and evidence types that makes those inferential boundaries explicit. Its proposed pathway from valid records to traceable allocations, reliable reports, operating controls and accountable responses identifies links requiring further evaluation; it does not establish a causal sequence. For institutions considering a digital system, this distinction suggests specifying the fund process to be changed, who may authorize or correct entries, and which records would permit a claimed improvement to be checked. A dashboard or distribution module could accordingly be evaluated against underlying

entries, reconciliations and exceptions as well as the interface. These are proposed assessment criteria, not demonstrated benefits of a particular platform.

The conclusions apply to the selected Scopus corpus. The single database, title based search could miss relevant studies; nine reports sought for full text assessment were unavailable; and the retrospective screening audit was not an independent duplicate review. Future institution based studies could follow systems across reporting periods and combine transaction samples, reconciliation and control records, task assessments, and evidence of how stakeholders' questions are addressed and resolved. Later reviews could also examine whether the identified evidence gap persists as additional reports become available. Such work would clarify whether a system's documented capabilities correspond to reliable fund information and accountable institutional practice.

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