

PRIORITIZING RISK FACTORS BEHIND LOW ZAKAT PERFORMANCE: AN ANALYTIC HIERARCHY PROCESS (AHP) STUDY FROM SOUTH SULAWESI, INDONESIA

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ABSTRACT

This study aims to identify the priority ranking of zakat performance risks in South Sulawesi, Indonesia, using both qualitative and quantitative research methods. The qualitative stage was conducted through a systematic literature review and direct consultation with an expert panel consisting of academics, regulators, and zakat practitioners to determine the relevant risk criteria. Subsequently, structured expert judgments were employed to collect pairwise comparison data among risks, after which the Analytic Hierarchy Process (AHP) was combined with a risk matrix approach. The results indicate that there are twelve risk criteria categorized into three main dimensions:

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internal, external, and systemic risks, which are ranked according to their priority levels based on a composite risk index. The findings show that two risks fall into the high-risk group (H), characterized by high impact and high probability, namely low public zakat literacy and the absence of integrated muzaki-mustahik data. A second group consists of several risks classified as medium-high and medium risk levels, mainly related to internal organizational capacity and governance, with risk scores ranging between moderate impact and likelihood. The remaining risks are categorized into low and very low risk groups, indicating relatively lower immediate threats to zakat performance. This study provides practical value for zakat regulators and zakat management organizations operating under limited resources, as it offers a structured basis for prioritizing risk mitigation strategies and improving the overall effectiveness and sustainability of the zakat system.

Keywords: risk, zakat; zakat performance; South Sulawesi; AHP

1. Introduction

Zakat is a fundamental pillar of Islam that embodies both spiritual devotion (*ḥablun min Allāh*) and socio-economic responsibility (*ḥablun min al-nās*), underscoring Islam's integrative concern for worship and social justice (Damanik & Albahi, 2024). Beyond its theological dimension, zakat functions as a strategic instrument within the Islamic economic system, particularly as a core component of Islamic social finance (Muhammad & Rosidta, 2023).

Indonesia holds substantial potential for Islamic social finance development, supported by a population of 278.69 million in 2023 which is approximately 40.8% of Southeast Asia's population (Badan Pusat Statistik, 2023; DataIndonesia.Id, 2023). With 237.55 million Muslims (85.6% of the population), Indonesia represents the world's largest Muslim population and a strategic base for zakat optimization (Databoks, 2025). This potential is reinforced by the 2024 National Zakat Literacy Index, which reports favorable public perceptions of zakat as both a religious obligation and a socio-economic instrument (Pusat Kajian Strategis – Badan Amil Zakat Nasional (Puskas BAZNAS), 2024). Accordingly, zakat possesses significant capacity to support poverty alleviation, reduce inequality, and contribute to national economic development.

Despite this potential, zakat realization remains markedly suboptimal. National zakat potential in 2023 was estimated at IDR 327 trillion, equivalent to approximately 75% of Indonesia's social protection budget, positioning zakat as a critical social safety net instrument (Direktorat Kajian dan Pengembangan Badan Amil Zakat Nasional, 2023). However, actual ZIS-DSKL collection reached only IDR 32.321 trillion, or less than 10% of this potential. The Outlook Zakat Indonesia 2025 identifies low public participation and uneven zakat awareness across socio-economic groups and regions as persistent constraints (Direktorat Kajian dan Pengembangan Badan Amil Zakat Nasional, 2024).

This gap is even more pronounced at the regional level, particularly in South Sulawesi. BAZNAS estimates the province's zakat potential at IDR 7.8 trillion in 2024 (BAZNAS Provinsi Sulawesi Selatan, 2024), while actual collection as of December 2024 reached only IDR 6.59 billion, or approximately 0.08% of total potential (Sulsel.Baznas.Go.Id, 2024). Such figures indicate severe underperformance and weak optimization. The 2020 National Zakat Index (IZN) further reflects this condition, with South Sulawesi scoring 0.48 ("Fairly Good"), driven by a weak micro dimension score of 0.35 ("Poor") and a stronger macro dimension score of 0.79 ("Good"). Institutional performance under the micro dimension reveals persistent weaknesses, particularly in collection (0.13, "Poor"), despite moderate performance in management (0.50), distribution (0.44), and reporting (0.75), the latter supported by audited financial statements but lacking sharia audits (Pusat Kajian Strategis – Badan Amil Zakat Nasional, 2020).

These patterns indicate structural and systemic weaknesses in zakat governance in South Sulawesi, suggesting that conventional approaches have been insufficient to address complex and interrelated challenges. Consequently, an integrative framework is required, one that simultaneously accounts for internal, external, and systemic dimensions while aligning effective zakat management models to enhance sustainable performance.

This urgency necessitates a systematic and evidence-based inquiry to identify priority problems and policy-relevant solutions. The Analytic Hierarchy Process (AHP) provides a robust multi-criteria decision-making framework by structuring complex problems into a hierarchical model and deriving relative priority weights through pairwise comparisons (Saaty, 2005). By decomposing zakat performance risks into clearly defined criteria and sub-criteria, the AHP enables decision-makers to assess the relative importance of technocratic, institutional, and structural dimensions in a transparent and consistent manner. This approach facilitates the formulation of prioritized zakat management strategies that are both analytically grounded and practically implementable under conditions of limited institutional resources.

Prior studies have addressed zakat governance using diverse methods and contexts. Huda et al. (2014) applied the AHP in Banten and South Kalimantan, identifying institutional factors as the primary constraint, followed by human resources and infrastructure. Siregar (2016) highlighted low awareness, limited human resources, and weak stakeholder integration in North Sumatra, while Najiyah et al. (2022) emphasized zakat literacy, human capital, and cross-sector collaboration. ANP (Analytic Network Process)-based studies by Iswanaji et al. (2021) and Hamdani et al. (2019) demonstrate the ANP's superiority in capturing inter-factor relationships, with governance reform consistently emerging as a top priority. Meanwhile, Grahesti et al., (2023) applied a SWOT analysis to emphasize network strengthening, data integration, service reputation, and human resource development.

Despite Indonesia's substantial zakat potential, empirical studies focusing on South Sulawesi remain limited and fragmented, particularly in prioritizing the key risk factors underlying low zakat performance. Existing research tends to examine internal, external, or systemic issues in isolation, offering limited guidance for institutions with constrained

resources that must determine which risks require immediate attention. Given the complex institutional and socio-cultural context of South Sulawesi, a structured and hierarchical decision-support approach is therefore required to identify priority risks in a systematic and transparent manner.

Accordingly, this study applies the AHP to prioritize the internal, external, and systemic risk factors contributing to low zakat collection and distribution performance in South Sulawesi, Indonesia. By synthesizing expert judgments, the study identifies the most critical risks that should be addressed first to improve zakat governance effectiveness. This risk-based prioritization framework is particularly relevant for zakat institutions such as the National Zakat Board (*Badan Amil Zakat Nasional*, BAZNAS) and the Amil Zakat Institution (*Lembaga Amil Zakat*, LAZ), which operate under limited institutional capacity and budgetary constraints and cannot simultaneously respond to all identified risks.

Theoretically, this study contributes to the Islamic social finance literature by reframing low zakat performance as a multidimensional risk management problem, rather than solely an operational or compliance issue. Practically, the findings provide evidence-based guidance for policymakers and zakat managers to allocate resources more effectively by focusing on the most critical risk factors. Conceptually, the study is grounded in the premise that suboptimal zakat performance results from the combined effects of internal institutional weaknesses, external socio-cultural risks, and systemic governance constraints, which can be systematically prioritized using the AHP to support more focused and feasible improvement efforts.

2. Literature review

2.1 Analytic Hierarchy Process (AHP)

Within decision-making theory, the AHP is a systematic and structured approach for analyzing complex decision problems by integrating mathematical modeling and psychological judgment. Developed by Saaty and Vargas (1980), the AHP is designed to assist policymakers and decision-makers in prioritizing alternatives in a clear and logical manner. The method facilitates the selection of decisions that best align with predefined objectives by translating qualitative assessments into quantitative priorities, supported by a robust theoretical foundation (Saaty, 2005).

The AHP structures complex decision problems into a hierarchical framework consisting of goals, criteria, and alternatives, in which each element is assigned a relative weight (Nugroho et al., 2018). This hierarchical modeling enables precise quantification of decision criteria through pairwise comparisons, allowing decision-makers to evaluate the relative importance of each criterion systematically (Saaty, 1984). Through this process, the AHP supports the determination of priority scales and enhances the rigor of evaluation and review by assessing the consistency and validity of judgments across criteria and sub-criteria (Vaidya & Kumar, 2006).

Owing to its flexibility and applicability, the AHP has been widely adopted in both individual and group decision-making contexts across diverse fields, including business, industry, healthcare, and education. According to Saaty and Vargas (1980), the implementation of the AHP generally involves four key steps: (1) defining the decision problem and relevant criteria, (2) conducting pairwise comparisons to establish criteria priorities, (3) computing weights for each criterion and alternative, and (4) deriving the final decision based on the synthesized priority results.

2.2 Determinants of zakat performance: An integrated perspective

Zakat, as a mandatory Islamic institution, plays a vital role in reducing socio-economic inequality and fostering sustainable welfare. Recent studies underline that optimizing zakat's impact requires integrated performance strategies encompassing effective resource mobilization, fair distribution, public trust enhancement, and long-term empowerment (Amir & Rumiani, 2023; Aristoni, 2021; Hasan et al., 2019). Consequently, zakat performance is increasingly understood as the outcome of interconnected factors, including human resources, organizational strategy, governance, technology, and stakeholder engagement.

Human resource management (HRM) emerges as a core determinant of zakat institutional performance. Hasan et al. (2019) emphasize HRM systems aligned with organizational goals and Islamic values, covering recruitment, training, evaluation, and compensation. Empirical evidence further confirms that *amil* professionalism—reflected in service quality, responsiveness, and ethical conduct—significantly strengthens institutional credibility, particularly during crises (Husain et al., 2019). These findings affirm that strategic HRM is essential for building sustainable organizational capacity.

Beyond internal capacity, organizational strategy and operational alignment substantially influence zakat performance. Studies show that zakat collection strategies are more effective when supported by efficient operational and supply chain systems. Siregar and Nasution (2025) demonstrate that integrated collection models at BAZNAS improve organizational outcomes, while Aristoni (2021) highlights that embedding governance and empowerment principles into strategic planning enhances stakeholder trust and participation. This evidence underscores the importance of aligning strategic objectives with operational capabilities.

Governance-oriented approaches further reinforce zakat sustainability. Good zakat governance—marked by transparency, accountability, stakeholder involvement, and performance monitoring—has been shown to strengthen legitimacy and public trust (Aristoni, 2021). Nuraeni et al. (2024) introduce the concept of Spiritual Servant Government Commitment (SSGC), illustrating how governance quality, ICT capability, and institutional trust jointly enhance zakat performance and welfare outcomes.

Legal compliance and accountability are also critical governance dimensions. Transparency, accountability, and corporate governance significantly affect zakat fund management performance (Amir & Rumiani, 2023). In Indonesia, Law No. 23 of 2011 mandates Sharia-based management and structured oversight of zakat institutions (Jaenudin & Hamdan, 2022). Normative juridical analyses argue that regulatory compliance mitigates institutional

risk and safeguards public trust (Sadiq et al., 2025), reinforcing the centrality of governance frameworks in zakat effectiveness.

Technological innovation has become a transformative driver of zakat management. Digitalization positively affects zakat collection sustainability, particularly during economic shocks such as financial crises and the Covid-19 pandemic (Al-Faruq et al., 2025). Digital fundraising and community-based platforms enhance governance quality, institutional capacity, and donor engagement (Janie et al., 2024). More advanced fintech solutions, including blockchain-based smart contracts, are proposed to automate zakat processes, ensure Sharia compliance, and enhance transparency while reducing manipulation risks (Mokodenseho et al., 2024; Sudarwanto et al., 2024).

On the distribution side, the AHP and ANP-based studies confirm the effectiveness of multi-criteria decision-making methods in prioritizing zakat beneficiaries and improving allocation efficiency (Achi, 2021; Solihin & Latifah, 2021). Productive zakat schemes, such as microenterprise support and skills development, consistently generate more sustainable welfare impacts than consumptive models (Hendar et al., 2023; Jermisittiparsert & Sommanawat, 2019). However, regional variations highlight the importance of context-sensitive and adaptive strategies (Kasdi, 2016).

Finally, muzakki engagement and performance evaluation are increasingly recognized as strategic concerns. Donor participation is strongly influenced by accountability, transparency, service quality, fintech adoption, and religiosity (Suprayitno et al., 2025). Nevertheless, comprehensive performance measurement frameworks integrating multi-criteria methods and stakeholder perspectives remain limited, indicating significant opportunities for methodological advancement in zakat performance assessment (Achi, 2021; Aggraeni et al., 2023; Solihin & Latifah, 2021).

3. Materials and methods

This field study was conducted in South Sulawesi, Indonesia to explore problems and solutions in zakat collection and distribution. Using a qualitative approach, it examines social constructions, motivations, and stakeholder dynamics in innovative and sustainable zakat management (Auliya et al., 2020). Research sites include zakat management organizations (BAZNAS and LAZ).

3.1 Research process

This study was conducted in four main stages. First, the research objectives were clearly defined to address the risk factors underlying low zakat performance. Second, qualitative methods were employed to identify and structure internal, external, and systemic risk criteria affecting zakat collection and distribution in South Sulawesi. Third, quantitative techniques were applied to assess and prioritize these risks based on expert judgments. Finally, a prioritized ranking of zakat performance risks was established to determine which risks require immediate attention.

To identify the priority levels of zakat performance risks, this study integrates the AHP with a risk matrix approach based on probability and impact assessments. The resulting framework provides a systematic and risk-based prioritization tool to support decision-making in zakat institutions such as BAZNAS and LAZ, particularly under conditions of limited institutional capacity and budget constraints. The overall research framework and procedural steps are illustrated in Figure 1 and Table 1.

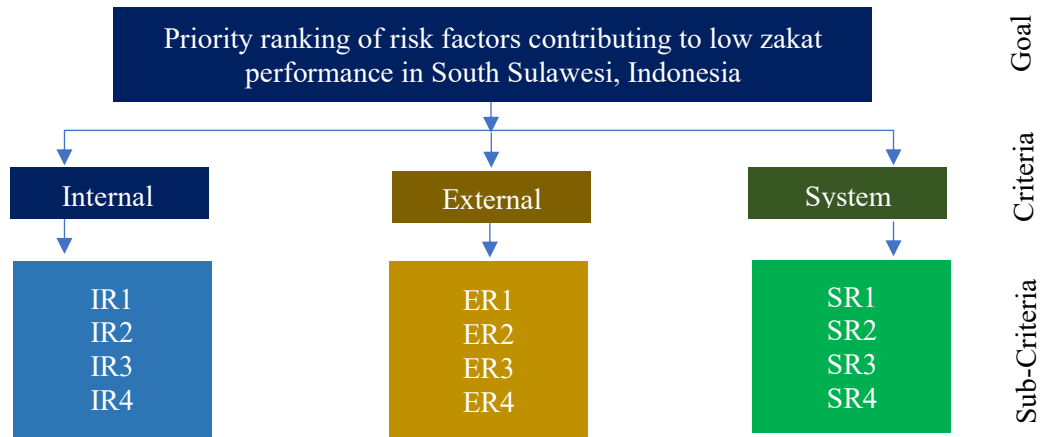


Figure 1 Research framework

Table 1
Research procedural steps

Research stage	Main phase	Activity description
Stage 1	Goal identification	Determine the priority ranking of risk factors contributing to low zakat performance in South Sulawesi, Indonesia
Stage 2	Qualitative research	Synthesize previous studies on zakat management, zakat performance, and zakat governance
		Form an expert panel consisting of academics, regulators, and zakat practitioners
Stage 3	Quantitative research	Identify and refine zakat performance risk criteria through expert discussions; evaluate the relevance of each risk; classify risks into internal, external, and systemic categories; and construct a hierarchical structure for AHP-based risk prioritization
		Design AHP-based questionnaires for quantitative data collection

Research stage	Main phase	Activity description
		Conduct structured expert interviews to obtain pairwise comparison judgments
		Construct pairwise comparison matrices for risk criteria and sub-criteria
		Calculate priority weights and perform consistency analysis ($CR \leq 0.10$); reassessment is conducted if $CR > 0.10$
		Calculate the impact of risk criteria
		Calculate the probability of occurrence ($p \leq 0.9$); if $p > 0.9$, expert reassessment is required
		Calculate risk score (RS)
Stage 4	Decision making	Establish the priority ranking of zakat performance risks to support risk mitigation and policy formulation in zakat governance

3.2 Qualitative research

3.2.1 Qualitative research procedure

The qualitative phase of this study was designed to identify, refine, and structure the risk factors underlying low zakat collection and distribution performance in South Sulawesi, Indonesia. This phase consisted of three main activities.

(1) Literature synthesis

A comprehensive review of prior studies on zakat management, zakat collection and distribution performance, and Islamic social finance governance was conducted. The literature review focused on identifying recurring problems and risk factors affecting zakat performance in Indonesia and comparable Muslim-majority contexts. Key references include studies by Huda et al. (2014), Coryna and Tanjung (2015), Wikaningtyas and Sulastiningsih (2015), Amir and Rumiani (2023), Aristoni (2021), Hasan et al. (2019), and other relevant empirical and normative works.

Based on the literature synthesis and expert deliberations, zakat performance risks were systematically classified into three main categories: internal, external, and systemic risks. This classification reflects the multidimensional nature of constraints affecting zakat collection and distribution performance in South Sulawesi.

Internal risks are associated with limitations within zakat management organizations, particularly in human resources, governance quality, service delivery, transparency, and accountability. These risks include limited amil competence in terms of technical, managerial, and Sharia-related knowledge, inadequate service quality provided to muzaki that weakens convenience and trust, weak organizational governance and ineffective decision-making processes, as well as low transparency and accountability in financial and

performance reporting. Collectively, these internal weaknesses reduce institutional credibility and constrain the operational effectiveness of zakat institutions.

External risks originate from factors beyond the direct control of the Zakat Management Organization (OPZ) and are mainly linked to socio-cultural conditions, stakeholder behavior, and policy support. These include low public zakat literacy regarding zakat obligations, calculation methods, and socio-economic functions; a strong preference among muzaki to distribute funds through informal or non-zakat charitable channels; insufficient support and facilitation from local governments; and the limited involvement of ulama and influential public figures in advocating zakat compliance and supporting OPZ programs. Such external constraints weaken public engagement and limit the institutional reach of zakat management organizations.

Systemic risks refer to deeper structural and regulatory challenges embedded in the zakat governance framework. Key systemic issues include the absence of integrated and reliable muzaki-mustahik data systems, regulatory inconsistencies and overlaps across national and regional governance levels, weak institutional performance evaluation mechanisms due to the lack of standardized indicators and monitoring frameworks, and underdeveloped digital infrastructure to support zakat payment systems, reporting, data integration, and inter-institutional coordination. These systemic risks generate persistent inefficiencies and hinder the long-term sustainability and scalability of zakat governance.

This stage produced an initial list of potential risk criteria reflecting the multidimensional nature of zakat governance challenges.

(2) Formation of expert panel

An expert panel was then established to validate and refine the identified risk criteria. The panel consisted of 15 experts with extensive experience and expertise in zakat governance and Islamic social finance, including experts or academics, regulators, and practitioners from zakat institutions in South Sulawesi. All experts possessed in-depth knowledge of zakat management practices, regulatory frameworks, and the socio-religious dynamics influencing zakat collection and distribution in the regional context.

(3) Expert discussions and criteria refinement

Risk criteria selection and structuring were conducted through direct expert discussions combined with a consensus-oriented approach. This method involved in-depth, semi-structured exchanges between the researchers and experts to clarify concepts, assess relevance, and refine the proposed risk factors (Bhandari, 2020).

Prior to the discussions, experts were contacted via email or WhatsApp and asked to review the preliminary list of risk criteria derived from the literature. Their initial feedback was synthesized and used as input for subsequent face-to-face discussions. The objectives of these discussions were to eliminate irrelevant or overlapping risks, add context-specific

risk factors, classify risks into internal, external, and systemic categories, and construct a hierarchical structure suitable for AHP-based risk prioritization.

The discussion sessions involved academics, regulators, and practitioners. Three rounds of discussions were conducted, with each session lasting approximately 20–30 minutes per expert. Through this iterative process, consensus was reached on the final set of risk criteria and sub-criteria, forming the qualitative foundation for the subsequent quantitative AHP analysis.

3.2.2 Qualitative research results

Based on the consensus reached through expert discussions involving academics, regulators, and zakat practitioners, the final set of risk criteria and sub-criteria was established to reflect the actual conditions of zakat management in South Sulawesi, Indonesia. During this qualitative stage, all initially identified risk factors were retained, as experts agreed that each factor has a direct or indirect contribution to the low performance of zakat collection and distribution in the region.

The finalized AHP model consists of two hierarchical levels, comprising three main risk criteria (internal, external, and systemic risks) and twelve sub-criteria. These risk dimensions collectively represent institutional, societal, and governance-related challenges faced by zakat institutions. At the internal risk level, four sub-criteria were identified: limited amil competence in terms of knowledge, skills, and professionalism; inadequate service quality for muzaki, particularly regarding convenience and trust; weak organizational governance and decision-making processes; and low levels of transparency and accountability in financial and performance reporting. The external risk dimension includes four sub-criteria reflecting environmental and stakeholder-related challenges, namely low public zakat literacy, the preference of muzaki for non-zakat charitable channels, insufficient support from local government authorities, and the limited involvement of ulama and public figures in promoting zakat awareness and compliance. Meanwhile, the systemic risk category consists of four sub-criteria related to structural and regulatory issues, including the absence of integrated muzaki-mustahik databases, regulatory inconsistencies across different governance levels, weak institutional performance evaluation systems, and underdeveloped digital infrastructure supporting zakat management.

The hierarchical structure of the AHP model for prioritizing zakat performance risks in South Sulawesi, along with the definitions and descriptions of each criterion and sub-criterion, is comprehensively presented in Table 2.

Table 2
Goal, criteria, sub-criteria, and description

Target (Goal)	Criteria (Level 1 risk criteria)	Sub-criteria (Level 2 risk criteria)	Description
Prioritization of risks or problems	Internal (IR)	Limited amil competence (knowledge, skills, professionalism) (IR1)	Refers to insufficient technical, managerial, and sharia-related competencies of amil, including limited training, lack of certification, and low professional standards in zakat management.
		Inadequate muzaki service quality (convenience and trust) (IR2)	Indicates poor service delivery to muzaki, such as limited payment channels, slow response, and weak relationship management that reduces trust and willingness to pay zakat through OPZ.
		Weak organizational governance and decision-making (IR3)	Represents ineffective internal governance structures, unclear authority, and suboptimal strategic and operational decision-making within zakat institutions.
		Low transparency and accountability in reporting (IR4)	Refers to the absence of clear, timely, and accessible financial and performance reports, which undermines public trust and institutional credibility.
	External (ER)	Low public zakat literacy (ER1)	Describes limited public understanding of zakat obligations, calculation methods, and socio-economic functions of zakat according to Islamic principles.
		Preference for non-zakat charitable channels (ER2)	Indicates the tendency of muzaki to distribute funds directly or through informal charity channels instead of official zakat institutions.
		Insufficient local government support (ER3)	Refers to weak policy backing, limited facilitation, and lack of active involvement from local governments in strengthening zakat management and enforcement.
		Limited involvement of	Describes the minimal role of religious leaders and influential public

Target (Goal)	Criteria (Level 1 risk criteria)	Sub-criteria (Level 2 risk criteria)	Description
		ulama and public figures (ER4)	figures in advocating zakat compliance and supporting OPZ programs.
	Systemic (SR)	Absence of integrated muzaki–mustahik data (SR1)	Refers to the lack of a unified and accurate database linking muzaki and mustahik, resulting in inefficiencies in collection, targeting, and distribution of zakat.
		Regulatory inconsistencies across governance levels (SR2)	Indicates misalignment and overlap of zakat regulations between national and regional authorities, causing implementation gaps and institutional confusion.
		Weak institutional performance evaluation systems (SR3)	Refers to the absence of standardized performance indicators, monitoring mechanisms, and evaluation frameworks for zakat institutions.
		Underdeveloped digital infrastructure (SR4)	Describes inadequate digital platforms and information systems to support zakat payment, reporting, data integration, and institutional coordination.

3.3 Quantitative research

3.3.1 Questionnaire design

The questionnaire was carefully designed to ensure clarity, relevance, and ease of understanding, as it directly affects the reliability of the results. Prior to formal data collection, the questionnaire was reviewed and refined.

The questionnaire was structured into four main sections.

Part 1 presented the finalized list of zakat performance risk criteria, encompassing internal, external, and systemic risk factors. These criteria were agreed upon during the qualitative phase through literature synthesis and expert discussions and represent the key problems underlying low zakat collection and distribution performance in South Sulawesi, Indonesia.

Part 2 captured experts' pairwise comparison judgments regarding the relative importance of each risk criterion using Saaty's 1–9 fundamental scale (Table 3) (Saaty, 2008). This section serves as the basis for calculating priority weights within the AHP framework.

Table 3
Pairwise comparison scale

Definition of importance	Explanation	Intensity
Extreme importance	An activity is overwhelmingly favored over another	9
Very, very strong		8
Very strong	An activity is favored very strongly over another	7
Strong plus		6
Strong importance	Experience and judgement strongly favor one activity	5
Moderate plus		4
Moderate importance	Experience and judgement slightly favor one activity	3
Weak or slight		2
Equal importance	Two activities contribute equally to the objective	1

The questionnaire was developed to elicit expert judgments on the relative importance of risk factors contributing to low zakat performance. Experts were asked to conduct pairwise comparisons among internal, external, and systemic risk criteria using the fundamental AHP scale ranging from 1 (equal importance) to 9 (extreme importance). When a risk criterion listed on the left was perceived to be more critical than the criterion on the right, a value between 1 and 9 was assigned to the left side; conversely, if the criterion on the right was considered more critical, the corresponding reciprocal value (1/9 to 1) was assigned.

For example, when comparing internal risk factors (placed on the left) with external risk factors (placed on the right), experts assigned higher weights to the side they perceived as having a greater influence on zakat collection and distribution performance. This pairwise comparison process enabled the systematic derivation of priority weights for each risk category and sub-criterion.

Part 3 assessed the probability of occurrence of each identified zakat performance risk factor. A five-point Likert scale was employed, ranging from very low (1) to very high (5), to reflect experts' perceptions of how frequently each risk is likely to occur within the current zakat governance context.

Part 4 consisted of open-ended questions designed to elicit additional expert insights, contextual explanations, and recommendations related to zakat management risks that may not be fully captured by the predefined criteria.

An open-ended section was also included to capture expert insights on context-specific zakat risks that may not have been fully represented in the predefined criteria. This section allowed respondents to provide additional observations and recommendations based on their professional experience in zakat management and regulation.

3.3.2 Structured interviews with experts

Quantitative data were collected through structured interviews supported by standardized questionnaires. Structured interviews were conducted strictly according to the questionnaire, without introducing spontaneous or unplanned questions, ensuring consistency and comparability of expert responses.

The experts involved in this stage were drawn from those who had participated in the earlier qualitative discussions. To minimize potential bias and peer influence, each expert was interviewed individually. Prior to the interview, respondents were given approximately 20–30 minutes to review and understand the questionnaire content. The interviews focused on two primary objectives: (1) establishing the priority weights of zakat performance risk factors through pairwise comparisons, and (2) collecting expert assessments regarding the likelihood of occurrence of each risk factor.

All responses were documented and compiled for subsequent AHP analysis. Selected results of the pairwise comparison and probability assessments are presented in Tables 3 and 4, which provide an overview of expert judgments used in determining the priority ranking of zakat performance risks.

Table 4
Results comparing the relative importance of several pairs of risk criteria

Criteria on the left	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Criteria on the right
Level 1 Risk Criteria																		
Internal (IR)								x										External (ER)
Internal (IR)								x										System (IR)
External (ER)									x									System (IR)

Table 5
Results of scoring the likelihood of risk occurrence

Risk criteria	Results given by experts											
	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12
Limited amil competence (knowledge, skills, professionalism) (IR1)	8	9	7	7	8	8	9	9	6	5	9	5
Inadequate muzaki service quality (convenience and trust) (IR2)	7	8	6	7	7	7	9	9	6	5	9	9
Weak organizational governance and decision-making (IR3)	8	9	7	9	7	7	9	9	5	5	9	7
Low transparency and	8	8	8	9	7	7	9	9	4	3	9	9

accountability in reporting (IR4)												
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3.3.3 Construction of pairwise comparison matrices

Following data collection, pairwise comparison matrices were constructed for each level of the hierarchy. These matrices served as the basis for calculating weights and assessing consistency.

Level 1 pairwise comparison matrix

Criteria	IR	ER	SR
IR	1	3/2	4/3
ER	2/3	1	3/2
SR	3/4	2/3	1

Level 2 pairwise comparison matrix: IR

Sub-criteria	IR1	IR2	IR3	IR4
IR1	1	7/8	7/8	7/8
IR2	8/7	1	1	1
IR3	8/7	1	1	1
IR4	8/7	1	1	1

Level 2 pairwise comparison matrix: ER

Sub-criteria	ER1	ER2	ER3	ER4
ER1	1	3/1	2/1	2/1
ER2	1/3	1	1/2	1/2
ER3	1/2	2/1	1	1/1
ER4	1/2	2/1	1/1	1

Level 2 pairwise comparison matrix: SR

Sub-criteria	SR1	SR2	SR3	SR4
SR1	1	2/1	2/1	3/2
SR2	1/2	1	1/2	1/2
SR3	1/2	2/1	1	1/1
SR4	2/3	2/1	1/1	1

3.3.4 Calculation of weights and consistency

After constructing the pairwise comparison matrices, the priority weights of zakat performance risk factors were calculated following the AHP procedure. The calculation process comprised several sequential steps.

Step 1: The priority vector for Level 1 risk criteria (global weights) was computed, representing the relative importance of the main risk dimensions, namely internal, external, and systemic risks affecting zakat collection and distribution performance in South Sulawesi.

Step 2: The priority vectors for Level 2 risk criteria (local weights) were then derived for each sub-criterion within the respective Level 1 categories.

The computation of priority vectors was carried out by normalizing each comparison matrix. This involved summing the values in each column, dividing each element by the corresponding column total, and then calculating the average value of each row. The resulting normalized eigenvector represents the weight of each criterion. To assess the reliability of expert judgments, a consistency matrix was constructed, and the maximum eigenvalue (λ_{max}) of each matrix was estimated as the basis for consistency evaluation.

The principal eigenvalue and its corresponding normalized right eigenvector indicate the relative importance of each factor and sub-factor. The normalization process follows Equation (1):

$$Aw = W \times \lambda_{max} \quad (1)$$

$$CI = \frac{(\lambda_{max} - n)}{n - 1} \quad (2)$$

$\lambda_{max} = n$ is shown by Saaty (2008) as a necessary and sufficient condition to check for consistency. λ_{max} deviates from n due to pairwise heterogeneous feedback. Therefore, the consistency index (CI) estimation method was proposed by Saaty to measure the consistency of the parameters. CI is defined in Equation (2).

Then, to get the consistency ratio (CR), the CI is divided by the random consistency index (RI) in Equation (3), and the value of RI is tabulated in Table 6 (Saaty, 1984).

$$CR = \frac{CI}{RI} \quad (3)$$

Calculation results are only accepted when the consistency ratio $CR \leq 10\%$ (0.1). If the CR exceeded this threshold, expert judgments were reviewed and reassessed to improve consistency (Saaty, 2008).

Table 6
Random consistency index table

Order	1	2	3	4	5	6	7	8	9	10
RI	0	0	0.58	0.9	1.12	1.24	1.32	1.41	1.45	1.49

Step 3: Calculate the overall weight. The overall weight calculation expression was proposed by Saaty (1984) in Equation (4).

$$\text{Overall weight} = \text{Local weight} \times \text{Global weight} \quad (4)$$

3.3.5 Calculation of risk impact

Based on the overall weight results, the impact level of each zakat performance risk factor was determined by converting the composite weights into standardized impact scores. The conversion followed the impact scale proposed by the Project Management Institute (2017), ranging from very low to very high impact.

Using linear interpolation, the risk factor with the highest overall weight was assigned an impact value of 0.80, while the lowest-ranked risk received a value of 0.05. The impact values of the remaining risk factors were proportionally estimated within this range to reflect their relative severity.

Table 7
Risk impact ratings(s) with a corresponding description of impact levels and scores proposed by the Project Management Institute (2017)

Impact score	Impact level	Impact value
5	Very high	$0.4 < s \leq 0.8$
4	High	$0.2 < s \leq 0.4$
3	Medium	$0.1 < s \leq 0.2$
2	Low	$0.05 < s \leq 0.1$
1	Very low	$0 < s \leq 0.05$

3.3.6 Calculation of probability of occurrence

The probability of occurrence for each risk criterion was calculated based on expert assessments collected through the questionnaire. The computation followed the method proposed by Hossen et al. (2015), as shown in Equation (5):

$$\text{Probability of occurrence of risk criteria} = \frac{\sum a_i \times n_i}{A \times N} \quad (5)$$

where a_i represents the weighting constant assigned to each response category (ranging from 0.1 for very low to 0.9 for very high), n_i denotes the frequency of responses, A is the maximum weight (0.9), and N is the total number of responses. In accordance with the Project Management Institute (2017) guidelines, if the calculated probability exceeded 0.90, experts were re-engaged to reassess their evaluations to ensure realistic risk estimation.

Table 8
Probability of occurrence levels and score proposed by the Project Management Institute (2017)

Probability score	Probability level	Rate
5	Very high	$0.7 < p \leq 0.9$
4	High	$0.5 < p \leq 0.7$
3	Medium	$0.3 < p \leq 0.5$
2	Low	$0.1 < p \leq 0.3$
1	Very low	$p \leq 0.1$

3.3.7 Calculation of risk score (RS)

The risk score (RS) for each zakat performance risk factor was computed by multiplying the impact score by the probability of occurrence, as expressed in Equation (6):

$$\text{Risk score (RS)} = \text{Impact of risk criteria} \times \text{Probability of occurrence of risk criteria} \quad (6)$$

This approach aligns with the risk assessment framework proposed by the Project Management Institute (2017) and has been widely applied in prior studies (e.g., Hossen et al., 2015; Long & Tue, 2022).

The resulting risk scores were subsequently mapped into a risk assessment matrix to classify the risks into three categories:

- Low risk ($0.01 \leq \text{RS} < 0.08$),
- Medium risk ($0.08 \leq \text{RS} < 0.18$), and
- High risk ($\text{RS} \geq 0.18$).

This classification provides a clear basis for prioritizing strategic interventions aimed at improving zakat governance performance in South Sulawesi.

4. Results and discussion

4.1 Results

4.1.1 Expert participation

To ensure a comprehensive and realistic assessment of the risk factors underlying low zakat performance in South Sulawesi, Indonesia, this study involved a panel of experts with substantial experience and expertise in zakat governance and Islamic social finance. A total of 15 experts participated in the study, all of whom possess strong academic backgrounds and practical knowledge relevant to zakat collection and distribution systems.

The expert panel was deliberately composed of three key stakeholder groups—academics/experts, regulators, and practitioners—to capture diverse perspectives from policy, theory, and operational practice. The experts have professional experience in higher education institutions, government agencies, religious authorities, and zakat management organizations, enabling them to provide informed and balanced judgments regarding internal, external, and systemic zakat performance risks. Their collective insights are considered to accurately reflect the institutional, regulatory, and socio-religious realities of zakat management in South Sulawesi. Table 9 presents the characteristics of the experts involved in this study. Table 10 summarizes the list of zakat performance risk criteria along with their reference sources.

Table 9
Characteristics of experts participating in the study

Expert group	Number of experts
Experts	5
Regulators	5
Practitioners	5
Total	15

Table 10
Risk criteria and their reference sources

Criteria (Level 1 risk criteria)	Sub-criteria (Level 2 risk criteria)	References
Internal (IR)	IR1. Limited amil competence (knowledge, skills, professionalism)	(Ishak et al., 2021; Maemunah et al., 2022)
	IR2. Inadequate muzaki service quality (convenience and trust)	(Ab Rahman et al., 2019; Rafiki et al., 2024)
	IR3. Weak organizational governance and decision-making	(Anwar & Septyan, 2019; Haris, 2025; Mohamad Yusof & Ishak, 2017)
	IR4. Low transparency and accountability in reporting	(Sholehah & Suprayogi, 2020; Widagdo et al., 2025; Zakiy & Turahman, 2023)
External (ER)	ER1. Low public zakat literacy	(Jalal & Abdullah, 2024; Rahman, 2025; Tulasmi et al., 2019)
	ER2. Preference for non-zakat charitable channels	(Maisyarah & Hamzah, 2024)
	ER3. Insufficient local government support	(Diana et al., 2025; Nahda et al., 2022)
	ER4. Limited involvement of ulama and public figures	(Jalal & Abdullah, 2024; Sholehah & Suprayogi, 2020)
Systemic (SR)	SR1. Absence of integrated muzaki–mustahik data	(Insani et al., 2024; Khairi et al., 2024; M.Masrukhan, 2024)
	SR2. Regulatory inconsistencies across governance levels	(Jamal et al., 2024; Maulana et al., 2022)
	SR3. Weak institutional performance evaluation systems	(Widagdo et al., 2025; Haris, 2025)
	SR4. Underdeveloped digital infrastructure	(Rafiki et al., 2024; Wulan et al., 2019; Rahman, 2025)

4.1.2 Results of finding priority vectors and checking consistency

Priority vector for level 1 risk criteria group: $\begin{bmatrix} 0.3610 \\ 0.3128 \\ 0.3262 \end{bmatrix}$

With $n = 3$; $\lambda_{\max} = 3.0214$

$$CI = \frac{\lambda_{\max} - n}{n - 1} = \frac{3.0214 - 3}{3 - 1} = 0.0107$$

$$CR = \frac{CI}{RI} = \frac{0.0107}{0.58} = 0.0184$$

With $CR = 0.0184 < 0.10$, so in general there is consistency in decision making.

Priority vector for level 2 risk criteria group – IR: $\begin{bmatrix} 0.2440 \\ 0.2507 \\ 0.2527 \\ 0.2527 \end{bmatrix}$

With $n = 4$; $\lambda_{\max} = 4.0201$

$$CI = \frac{\lambda_{\max} - n}{n - 1} = \frac{4.0201 - 4}{4 - 1} = 0.0067$$

$$CR = \frac{CI}{RI} = \frac{0.0067}{0.90} = 0.0074$$

With $CR = 0.0074 < 0.10$, so in general there is consistency in decision making.

Priority vector for level 2 risk criteria group – ER: $\begin{bmatrix} 0.3562 \\ 0.1804 \\ 0.2221 \\ 0.2413 \end{bmatrix}$

With $n = 4$; $\lambda_{\max} = 4.0316$

$$CI = \frac{\lambda_{\max} - n}{n - 1} = \frac{4.0316 - 4}{4 - 1} = 0.0105$$

$$CR = \frac{CI}{RI} = \frac{0.0105}{0.90} = 0.0117$$

With $CR = 0.0117 < 0.10$, so in general there is consistency in decision making.

Priority vector for level 2 risk criteria group – SR: $\begin{bmatrix} 0.3418 \\ 0.2146 \\ 0.2013 \\ 0.2423 \end{bmatrix}$

With $n = 4$; $\lambda_{\max} = 4.0284$

$$CI = \frac{\lambda_{\max} - n}{n - 1} = \frac{4.0284 - 4}{4 - 1} = 0.0095$$

$$CR = \frac{CI}{RI} = \frac{0.0105}{0.90} = 0.0106$$

With $CR = 0.0106 < 0.10$, so in general there is consistency in decision making.

Table 11
Results of local weight and global weight of risk criteria

No.	Risk criteria	Local weight	Global weight
1	Limited amil competence (knowledge, skills, professionalism) (IR1)	0.2764	0.0954
2	Inadequate muzaki service quality (convenience and trust) (IR2)	0.2348	0.0810
3	Weak organizational governance and decision-making (IR3)	0.2531	0.0874
4	Low transparency and accountability in reporting (IR4)	0.2357	0.0814
5	Low public zakat literacy (ER1)	0.3492	0.1138
6	Preference for non-zakat charitable channels (ER2)	0.1698	0.0553
7	Insufficient local government support (ER3)	0.2306	0.0751
8	Limited involvement of ulama and public figures (ER4)	0.2504	0.0816
9	Absence of integrated muzaki–mustahik data (SR1)	0.3418	0.1125
10	Regulatory inconsistencies across governance levels (SR2)	0.2146	0.0706
11	Weak institutional performance evaluation systems (SR3)	0.2013	0.0662
12	Underdeveloped digital infrastructure (SR4)	0.2423	0.0797

Table 12
Risk index

No.	Risk criteria	Overall weight	Impact (s)	Prob (p)	Risk score (RS)	Risk level group	Risk rank
1	Low public zakat literacy	0.0397	4 (High)	0.71	0.284	High risk	1
2	Absence of integrated muzaki–mustahik data	0.0384	4 (High)	0.69	0.265	High risk	2
3	Limited amil competence	0.0264	3 (Medium)	0.67	0.178	Medium–High risk	3

No.	Risk criteria	Overall weight	Impact (s)	Prob (p)	Risk score (RS)	Risk level group	Risk rank
	(knowledge, skills, professionalism)						
4	Weak organizational governance and decision-making	0.0255	3 (Medium)	0.66	0.168	Medium–High risk	4
5	Low transparency and accountability in reporting	0.0249	3 (Medium)	0.68	0.169	Medium–High risk	5
6	Limited involvement of ulama and public figures	0.0204	3 (Medium)	0.63	0.129	Medium risk	6
7	Inadequate muzaki service quality (convenience and trust)	0.0190	3 (Medium)	0.62	0.118	Medium risk	7
8	Insufficient local government support	0.0173	2 (Low)	0.61	0.105	Medium risk	8
9	Regulatory inconsistencies across governance levels	0.0152	2 (Low)	0.58	0.088	Low–Medium risk	9
10	Underdeveloped digital infrastructure	0.0193	3 (Medium)	0.56	0.108	Medium risk	10
11	Weak institutional performance evaluation systems	0.0133	2 (Low)	0.54	0.072	Low risk	11
12	Preference for non-zakat charitable channels	0.0094	1 (Very Low)	0.49	0.046	Very low risk	12

4.2 Discussion

Table 12 presents the priority ranking of zakat performance risks in South Sulawesi based on the calculated risk score (RS), which integrates both the impact and probability of occurrence of each risk criterion. Following the risk classification approach adapted from the Project Management Institute (2017), the risks were grouped into three levels: high-risk (H) for $RS \geq 0.18$, medium-risk (M) for $0.08 \leq RS < 0.18$, and low-risk (L) for $RS < 0.08$.

The high-risk group consists of two dominant risk criteria ranked first and second. The most critical risk is low public zakat literacy, with the highest risk score (RS = 0.284). This result indicates that insufficient public understanding of zakat obligations, calculation methods, and socio-economic functions poses a substantial threat to zakat collection and distribution performance. High impact and probability values suggest that this risk not only has far-reaching consequences but also occurs frequently. This finding is consistent with prior studies highlighting that limited zakat literacy weakens compliance, reduces institutional trust, and encourages informal zakat distribution practices, ultimately constraining the potential of zakat as an instrument of socio-economic development. Rahman (2025) demonstrated that zakat literacy significantly enhances both trust in zakat institutions and the intention to use online payment platforms, while perceptions of risk deter digital adoption. Similarly, Jalal and Abdullah (2024) found that limited general knowledge about zakat obligations and calculation methods impedes compliance and drives muzakki toward informal giving channels. Tulasmi et al. (2019) likewise highlighted that deficiencies in muzakki education (“risk of education for muzakki”) undermine collection volumes and erode institutional credibility. Thus, our finding confirms and extends these studies by showing that low literacy not only reduces uptake of formal collection channels but also cycles back to weaken overall zakat performance.

The second-highest priority risk is the absence of integrated muzaki-mustahik data (RS = 0.265). This systemic risk reflects structural weaknesses in zakat governance, particularly the lack of a unified and reliable database connecting zakat payers and beneficiaries. The high impact score indicates that fragmented data significantly undermines collection efficiency, targeting accuracy, and distribution effectiveness. Moreover, the relatively high probability value suggests that this problem is persistent across zakat institutions. These findings underscore the importance of data integration and digital coordination as foundational prerequisites for improving zakat governance performance. Khairi et al., (2024) underscored data fragmentation as a core obstacle in digital zakat management, noting that disparate platforms hamper both targeting accuracy and reporting transparency. To overcome such silos, M.Masrukhan (2024) proposed a blockchain-based ledger for end-to-end traceability of muzakki contributions and mustahik distributions, while Insani et al. (2024) pointed out that regulatory ambiguity and underdeveloped digital infrastructure further stall the consolidation of stakeholder records. Together, these studies support our conclusion that without an integrated data backbone, zakat governance will remain beset by inefficiencies and suboptimal fund allocation.

The medium-high risk group includes three internal risks: limited amil competence (RS = 0.178), weak organizational governance and decision-making (RS = 0.168), and low transparency and accountability in reporting (RS = 0.169). These risks collectively highlight internal institutional constraints within zakat management organizations. Limited amil competence reflects gaps in technical, managerial, and Sharia-related skills, which can reduce operational effectiveness and innovation capacity. Weak governance structures and decision-making processes further exacerbate inefficiencies, while low transparency and accountability undermine public trust and institutional legitimacy. Together, these

internal weaknesses reduce the credibility and performance of zakat institutions, reinforcing the interdependence between human resources, governance quality, and accountability mechanisms.

The medium-risk group comprises five risk criteria with RS values ranging from 0.105 to 0.129. Among these, limited involvement of ulama and public figures (RS = 0.129) plays a significant role, as religious leaders and influential figures are central in shaping public attitudes and compliance behavior in zakat practices. Inadequate muzaki service quality (RS = 0.118) further indicates that limited payment convenience, weak relationship management, and suboptimal service delivery negatively affect trust and willingness to channel zakat through official institutions. Additionally, insufficient local government support (RS = 0.105), underdeveloped digital infrastructure (RS = 0.108), and regulatory inconsistencies across governance levels (RS = 0.088) reflect external and systemic challenges that constrain institutional coordination, technological adoption, and policy implementation. Although these risks exhibit relatively lower impact compared to high-risk factors, their moderate probability of occurrence suggests that they continue to impede zakat performance if left unaddressed.

The low-risk group consists of two criteria: weak institutional performance evaluation systems (RS = 0.072) and preference for non-zakat charitable channels (RS = 0.046). While these risks show lower immediate threat levels, they should not be disregarded. Weak evaluation systems limit learning, feedback, and continuous improvement within zakat institutions, while informal charitable preferences reflect underlying trust and cultural factors that may escalate if institutional credibility declines. Therefore, even low-risk factors warrant strategic attention as part of a comprehensive risk mitigation framework.

In general, the findings demonstrate that zakat performance risks in South Sulawesi are primarily driven by socio-cognitive and systemic factors, followed by internal organizational constraints. The dominance of high-risk factors related to public literacy and data integration suggests that improving zakat performance requires a system-first and knowledge-driven strategy, emphasizing education, digital integration, and institutional coordination. Addressing medium-risk internal and external factors through governance reform, capacity building, and stakeholder engagement is essential to ensure the sustainability and scalability of zakat management

Taken together, the findings reveal that zakat performance risks in South Sulawesi are not merely operational or technical in nature, but are deeply rooted in structural, cognitive, and institutional dimensions of zakat governance. The dominance of high-risk factors related to public zakat literacy and data integration underscores that improving zakat performance cannot rely solely on incremental organizational adjustments. Instead, it requires a systemic reorientation that prioritizes knowledge dissemination, institutional coordination, and infrastructure integration as foundational enablers of effective zakat management.

Moreover, the concentration of medium-high risk factors within internal organizational domains, such as amil competence, governance quality, and transparency, indicates that

institutional capacity and accountability mechanisms play a decisive mediating role between systemic reforms and actual performance outcomes. Without parallel improvements in human resources and governance practices, broader policy interventions may fail to translate into tangible performance gains. At the same time, the presence of external and medium-level risks highlights the importance of stakeholder engagement and multi-actor collaboration, particularly involving religious authorities, local governments, and digital ecosystem providers.

These patterns suggest that zakat performance risks operate as an interconnected hierarchy rather than isolated challenges. Consequently, policy responses must be designed in an integrated and sequenced manner, aligning systemic reforms with institutional strengthening and stakeholder mobilization. Building on this insight, the following section translates the empirical risk prioritization results into targeted policy and managerial implications for zakat regulators, zakat management organizations, and supporting stakeholders in South Sulawesi.

5. Conclusion and recommendations

5.1 Conclusion

This study examined the prioritization of zakat performance risks in South Sulawesi, Indonesia by integrating the AHP with a risk matrix approach. Drawing on a systematic literature review and validation through an expert panel comprising academics, regulators, and zakat practitioners, the study identified twelve key risk criteria reflecting internal, external, and systemic dimensions of zakat governance. The AHP method was employed to determine the relative importance of each risk criterion, while the risk matrix was used to assess their combined impact and probability of occurrence, resulting in a comprehensive risk index and priority ranking.

The findings indicate that zakat performance risks in South Sulawesi are unevenly distributed across different risk levels. Two risk criteria, low public zakat literacy and the absence of integrated muzaki-mustahik data, fall into the high-risk category, characterized by both high impact and high probability of occurrence. These risks represent fundamental constraints that directly undermine zakat collection efficiency, targeting accuracy, and public trust in official zakat institutions. Their dominance highlights that zakat performance challenges are not merely operational, but are deeply embedded in knowledge gaps and systemic weaknesses.

A second cluster of risks occupies the medium-high and medium risk levels, predominantly associated with internal organizational capacity and governance, including limited amil competence, weak decision-making structures, low transparency and accountability, inadequate service quality, and limited engagement of religious and public figures. Although their individual risk scores are lower than those of the high-risk group, their cumulative effect poses a significant threat to institutional credibility and sustainability. In contrast, several regulatory and preference-related risks fall into the low to very low risk

categories, indicating relatively lower immediate threat, though they remain relevant in the broader governance ecosystem.

Overall, the results demonstrate that zakat performance risks operate in a hierarchical and interconnected manner. Systemic and cognitive risks at the upper-level shape the effectiveness of internal organizational processes, which in turn influence external stakeholder engagement and compliance. This layered risk structure underscores the importance of prioritization in policy and managerial responses, particularly under conditions of limited institutional resources.

5.2 Recommendations

Based on the empirical results, this study recommends that zakat regulators and zakat management organizations in South Sulawesi prioritize risk mitigation efforts according to the identified risk levels. Primary attention should be given to risk criteria classified as high and medium-high risk, as these pose the greatest threat to zakat performance.

For high-risk criteria, namely low public zakat literacy and the lack of integrated muzaki-mustahik data, strategic interventions should focus on avoidance and structural reform. This includes large-scale and sustained zakat literacy campaigns, integration of zakat education into formal and informal religious platforms, and the development of a unified digital data infrastructure that links collection and distribution processes across institutions. Addressing these risks is essential for strengthening public awareness, improving targeting accuracy, and enhancing institutional legitimacy.

Risks in the medium and medium-high categories require mitigation-oriented strategies. Improving amil competence through standardized training and certification, strengthening internal governance frameworks, enhancing transparency in financial and performance reporting, and improving service quality for muzaki are critical steps to reduce institutional vulnerability. In addition, greater involvement of ulama and influential public figures can serve as a social reinforcement mechanism to enhance zakat compliance and trust.

Low and very low risk criteria may be addressed through tolerance and monitoring strategies. While these risks do not demand immediate large-scale intervention, they should remain part of ongoing institutional evaluation to prevent escalation under changing regulatory or socio-economic conditions.

5.3 Limitations and future research

Despite its contributions, this study has several limitations. First, the risk assessment relies on expert judgment, which may be influenced by individual backgrounds, institutional affiliations, and professional experience. Although expert diversity was intentionally ensured, subjective bias cannot be entirely eliminated. Second, the AHP method emphasizes relative prioritization rather than absolute measurement, requiring careful construction of pairwise comparison matrices.

Future research may extend this study by integrating the AHP with alternative risk assessment techniques such as FMEA or the Fine–Kinney method to enhance robustness. Further studies could also apply the proposed framework to other regional contexts or compare zakat governance risks across provinces or countries. Additionally, longitudinal research examining how risk priorities evolve following policy or technological interventions would provide valuable insights into the dynamic nature of zakat governance.

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APPENDIX QUESTIONNAIRE

Assalamu'alaikum Warahmatullahi Wabarakatuh

Allow me to introduce myself:

Name : Azwar
Program/Institution : Doctoral Program (PhD) in Islamic Studies
Islamic Economics and Halal Industry
UIN Alauddin Makassar

I am currently conducting a research study entitled:

PRIORITIZING RISK FACTORS BEHIND LOW ZAKAT PERFORMANCE: AN
ANALYTIC HIERARCHY PROCESS (AHP) STUDY FROM SOUTH SULAWESI,
INDONESIA

This study aims to identify the priority ranking of zakat performance risks in South Sulawesi, Indonesia.

In this regard, we respectfully request your willingness to participate in this study by providing your expert judgment and responses to the questions presented below.

RESPONDENT INFORMATION

Name :
Occupation/Area of Expertise :
Institution/Organization :

GUIDELINES FOR COMPLETION

The assessment uses a scale of 1, 2, 3, 4, 5, 6, 7, 8, or 9, representing the level of importance, relevance, or priority among the assessed variables.

The evaluation criteria are defined as follows:

- 1 = Not Important / Relevant / Priority
- 3 = Slightly Important / Relevant / Priority
- 5 = Important / Relevant / Priority
- 7 = Very Important / Relevant / Priority
- 9 = Extremely Important / Relevant / Priority

Intermediate values indicate uncertainty between two adjacent judgments:

- 2 = Between 1 and 3
- 4 = Between 3 and 5
- 6 = Between 5 and 7
- 8 = Between 7 and 9

MAIN PROBLEMS (GENERAL LEVEL)

In this section, you are asked to assess the importance/relevance/priority of each internal, external, and systemic problem related to the low performance of zakat collection and distribution in South Sulawesi.

1. Internal Problems

Internal problems originate from within zakat institutions themselves, including issues related to human resources, organizational governance, service quality, transparency, and accountability. These factors reflect institutional weaknesses that may reduce effectiveness in zakat collection.

Not Important/Relevant /Priority	1	2	3	4	5	6	7	8	9	Extremely Important/Relevant/ Priority

2. External Problems

External problems arise from the environment outside zakat institutions, such as the level of public zakat literacy, muzaki preferences for alternative charitable channels, weak local government support, and limited involvement of community leaders and ulama. These factors reflect social, cultural, and political challenges that influence public participation in zakat.

3. Systemic Problems

Systemic problems relate to broader structural, regulatory, and infrastructural aspects that support zakat governance. These include the absence of integrated data systems, regulatory uncertainty, weak institutional performance evaluation systems, and limited digital infrastructure. These macro-level issues affect the consistency and sustainability of zakat management.

Not Important/Relevant /Priority	1	2	3	4	5	6	7	8	9	Extremely Important/Relevant/ Priority

MAIN INTERNAL PROBLEMS

In this subsection, you are asked to assess the importance/relevance/priority of each internal sub-criterion related to low zakat collection and distribution performance in South Sulawesi.

1. Amil Human Resource Competence

The limited level of knowledge, skills, and professionalism of zakat officers (amil) in managing zakat effectively.

Not Important/Relevant /Priority	1	2	3	4	5	6	7	8	9	Extremely Important/Relevant/ Priority

2. Muzaki/Mustahik Service Quality

Suboptimal service quality provided to muzaki and mustahik in terms of convenience, comfort, and trust.

Not Important/Relevant /Priority	1	2	3	4	5	6	7	8	9	Extremely Important/Relevant/ Priority

3. Organizational Management

Weak governance of zakat institutions, including deficiencies in planning, supervision, and decision-making processes.

Not Important/Relevant /Priority	1	2	3	4	5	6	7	8	9	Extremely Important/Relevant/ Priority

4. Transparency and Accountability

The lack of open, measurable, and credible reporting on zakat management, which reduces public trust.

Not Important/Relevant /Priority	1	2	3	4	5	6	7	8	9	Extremely Important/Relevant/ Priority

MAIN EXTERNAL PROBLEMS

In this subsection, you are asked to assess the importance/relevance/priority of each external sub-criterion related to low zakat collection and distribution performance in South Sulawesi.

1. Low Zakat Literacy

Insufficient public understanding of zakat obligations, benefits, and mechanisms.

Not Important/Relevant /Priority	1	2	3	4	5	6	7	8	9	Extremely Important/Relevant/ Priority

2. Preference for Non-Zakat Charitable Channels

The tendency of some muzaki to channel funds to social or philanthropic institutions outside official zakat organizations.

Not Important/Relevant /Priority	1	2	3	4	5	6	7	8	9	Extremely Important/Relevant/Pr iority

3. Weak Local Government Support

The limited role of local governments in supporting zakat-related policies, regulations, and program synergies.

Not Important/Relevant /Priority	1	2	3	4	5	6	7	8	9	Extremely Important/Relevant/Pr iority

4. Role of Public Figures and Ulama

Limited involvement of influential public figures and religious leaders in promoting zakat on a large scale.

Not Important/Relevant /Priority	1	2	3	4	5	6	7	8	9	Extremely Important/Relevant/ Priority

MAIN SYSTEMIC PROBLEMS

In this subsection, you are asked to assess the importance/relevance/priority of each systemic sub-criterion related to low zakat collection and distribution performance in South Sulawesi.

1. Absence of Integrated Data

The lack of an integrated database of muzaki and mustahik across zakat institutions.

Not Important/Relevant /Priority	1	2	3	4	5	6	7	8	9	Extremely Important/Relevant/ Priority

2. National Regulatory Uncertainty

Inconsistencies in zakat-related policies and regulations at the national level that affect regional implementation.

Not Important/Relevant /Priority	1	2	3	4	5	6	7	8	9	Extremely Important/Relevant/ Priority

3. Weak Institutional Evaluation System

The absence of standardized and credible performance evaluation frameworks for zakat institutions.

Not Important/Relevant /Priority	1	2	3	4	5	6	7	8	9	Extremely Important/Relevant/ Priority

4. Limited Digital Infrastructure

Limited utilization of digital technology in zakat collection, distribution, and reporting processes.

	1	2	3	4	5	6	7	8	9	
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Not Important/Relevant /Priority											Extremely Important/Relevant/ Priority
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COMMENTS / SUGGESTIONS