E-ISSN: 2962-6110
P-ISSN: 2964-7843
JSRET
jsret.knpub.com
Journal of Scientific Research, Education, and Technology

Building a Solidarity Protection Ecosystem for Vulnerable Muslim Households: A Systematic Evidence Synthesis

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ABSTRACT

Financial inclusion can improve access to capital while leaving low-income households exposed to losses that destroy income, assets and repayment capacity. This review asks a different question from product-centred studies: what institutional design conditions enable Islamic social finance, community-based financial intermediation, and microtakaful to function as a single credible protection system? A systematic evidence synthesis was undertaken using a verified source ledger and a framework-analysis protocol. Peer-reviewed studies and authoritative policy documents published mainly between 2005 and 2026 were searched through publisher platforms, DOI/Crossref records, Google Scholar, DOAJ and institutional repositories. Thirty substantive publications and seven methodological or policy sources were retained after relevance, traceability and quality checks. The evidence was coded across the protection lifecycle: household entry, affordability support, risk pooling, claims, accountability and recovery outcomes. Four recurrent system failures were identified: finance–protection mismatch, unstable contribution support, claims-related trust erosion and blurred institutional responsibility. In response, the review develops a four-layer Solidarity Protection Stack. The household interface is separated from social-fund eligibility, licensed risk management and independent assurance. Infaq is positioned as transitional affordability capital rather than a permanent substitute for participant contributions or actuarial reserves. Baitul Maal wat Tamwil may aggregate, educate and assist participants, but underwriting and claims liability remain with a licensed takaful operator. The framework's novelty lies in organising existing Islamic instruments around the participant's protection journey and measurable recovery, rather than around institutional products. The review provides design propositions for pilots, regulation and future impact evaluation in Indonesia and comparable markets. The Solidarity Protection Stack is presented as a synthesis-derived design proposition that requires empirical validation rather than as an already validated programme model.

Keywords: *Financial Resilience; Islamic Social Finance; Microtakaful; Baitul Maal Wat Tamwil; Consumer Protection; Systematic Review*

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INTRODUCTION

The expansion of financial services to underserved households is commonly treated as evidence of inclusion. That interpretation is incomplete. Access to savings, payments or microfinance may increase economic opportunity. However, it does not

ensure that a household can withstand illness, premature death, fire, flood or an interruption to informal work. When the same household has minimal liquid savings and no reliable insurance, a single severe event can convert productive financing into financial distress. The relevant policy problem is therefore not only whether poor households can enter a financial system, but whether that system protects the gains created by participation (Clarke & Dercon, 2016; Dercon, 2005).

Risk affects welfare before a loss occurs. Households that expect to bear shocks alone may retain cash in low-return forms, avoid investments with uncertain payoffs, postpone treatment, or diversify into safer but less productive activities. After a loss, they may borrow informally, sell tools, reduce food consumption or interrupt children's schooling. Microinsurance research consequently distinguishes access from resilience: the first concerns entry to financial services; the second concerns the capacity to absorb and recover without irreversible damage. Evidence from Ghana, for example, links microinsurance participation to higher income and precautionary savings outcomes among low-income households, although the results depend on programme design and local conditions (Biener & Eling, 2012; Oppong et al., 2024). Related Indonesian evidence also links debt-taking and charitable behaviour with household resilience considerations (Arsyianti et al., 2018).

Islamic finance offers several instruments that could address different parts of this problem. Islamic microfinance supplies working capital and transaction services. Microtakaful provides mutual risk pooling through Shariah-compliant arrangements. Islamic social finance mobilises mandatory and voluntary transfers, including *zakat, waqf, sadaqah* and *infaq*. These instruments are often discussed as parts of a coherent moral economy, but they are usually implemented through separate organisations, legal mandates and accounting systems. Integration is therefore not achieved merely by placing the instruments in one conceptual diagram. It requires a clear division of functions, rules for transferring funds, protection of participant rights and credible responsibility when a claim arises (Tamanni et al., 2022; Widiastuti et al., 2022).

Microtakaful is especially relevant because it converts uncertain individual losses into contributions to a collective risk fund for participants. The approach is consistent with mutual assistance and may be adapted to small, clearly defined benefits. Nevertheless, low-income markets present difficult economics. Contributions are small, income is irregular, enrolment and collection are costly, adverse selection can be severe, and claims verification may absorb a large share of the contribution. Demand studies in Indonesia and Malaysia also show that religious acceptability is not sufficient: price, knowledge, perceived control, accessibility and confidence in the provider influence participation (Bangaan Abdullah et al., 2022; Rapi & Kassim, 2023a, 2023b). Institutional development research in Indonesia likewise highlights the need to align the microtakaful strategy with organisational and regulatory capacity (Rusydiana & Devi, 2017).

Islamic social finance can reduce affordability barriers, but each instrument has distinct constraints. Beneficiary categories and jurisprudential rules govern *Zakat*. Waqf generally preserves an endowed asset or capital base and distributes its returns. *Infaq* is

voluntary and comparatively flexible, allowing a donor or institution to support permissible welfare objectives. That flexibility makes *infaq* suitable for contribution assistance, education, enrolment costs or narrowly specified contingency support. However, flexibility also poses a danger: if social funds are treated as an unlimited subsidy, the programme can become dependent on annual fundraising, obscure the true cost of coverage, and weaken incentives to build a stable contribution base (Ascarya, 2022; Hamzah & Yudiawan, 2023; Jaenudin et al., 2018).

Baitul Maal wat Tamwil (BMT) appears attractive as a delivery channel because it combines community proximity with social and commercial functions. BMT staff may understand clients' businesses, meet them regularly and maintain transaction records. These capabilities can lower the cost of education, enrolment, collection and claims notification. However, the same institutional proximity can create role confusion. Research on Indonesian BMTs documents differences in legal form, governance capacity, monitoring and the balance between social and commercial objectives (Abdul Rahman & Dean, 2013; Rohman et al., 2022; Wulandari & Kassim, 2016). Community trust should therefore be used to support distribution, not to transfer insurance risk to an institution that is not licensed or capitalised to bear it.

Existing scholarship provides valuable but fragmented insights. Research on microtakaful adoption shows that affordability, knowledge, perceived behavioural control, accessibility, and confidence in providers shape participation (Bangaan Abdullah et al., 2022; Rapi & Kassim, 2023a, 2023b). Islamic social-finance research shows how zakat, waqf, infaq and blended arrangements may expand welfare support and institutional integration (Haneef et al., 2015; Tamanni et al., 2022; Widiastuti et al., 2022), while BMT studies document community proximity, financing practices and persistent governance and capacity constraints (Abdul Rahman & Dean, 2013; Rohman et al., 2022; Wulandari, 2019; Wulandari & Kassim, 2016). What remains unresolved is institutional responsibility across the complete protection lifecycle: who determines support eligibility, who holds and transfers social funds, who bears insurance risk, who decides and pays claims, who controls participant data, and who is accountable for recovery outcomes. This institutional interface, rather than the availability of any single Islamic instrument, is the specific research gap addressed here.

This article, therefore, reframes the subject in terms of the protection lifecycle. It aims to identify where value is created or lost as a vulnerable household moves through the stages of entry, contribution support, pooled protection, claims, and recovery. Three questions guide the review: (1) Which recurring institutional failures prevent Islamic social finance and microtakaful from producing reliable protection? (2) How should the roles of social-finance institutions, BMTs and takaful operators be separated and coordinated? (3) Which design principles should guide pilots and regulation? The contribution is a synthesis-derived design proposition rather than a validated programme model. Its novelty lies in the combination of four elements: a four-layer institutional architecture; organisation around the participant-protection lifecycle; explicit separation of social-support funds from risk-bearing and operator functions; and evaluation against household recovery and participant-

rights outcomes. Existing blended-finance models establish the feasibility or desirability of combining Islamic social and commercial instruments. In contrast, the proposed Solidarity Protection Stack specifies who should perform each function, where funds and decisions should remain separated, and how performance should be assessed across the participant journey.

METHOD

The study employed a focused systematic review with framework synthesis. Framework synthesis was selected because the evidence base combines surveys, institutional studies, regulatory analyses, conceptual models and impact research. Such heterogeneity is not suitable for statistical meta-analysis, but it can be systematically organised around a common decision process. Reporting was informed by PRISMA 2020, while review design and qualitative synthesis followed the principles discussed by Page et al. (2021), Snyder (2019), Paul and Criado (2020), and Thomas and Harden (2008).

The review question was formulated around the household protection journey rather than a single instrument. Searches were completed on 5 August 2026 through publisher websites, DOI- and Crossref-linked records, Google Scholar, DOAJ, institutional repositories and the websites of relevant standard-setting organisations. For reproducibility, the revised search protocol specifies the principal Boolean strings used to operationalise the search concepts: ("microtakaful" OR "microtakaful" OR "Islamic microinsurance") AND ("low-income" OR poor OR vulnerable OR resilience); ("infaq" OR "infāq" OR "Islamic social finance" OR zakat OR waqf OR sadaqah) AND (takaful OR microinsurance); ("Islamic microfinance" OR BMT OR "Baitul Maal wat Tamwil") AND (insurance OR protection OR resilience); and (microinsurance AND "financial resilience"). Terms were adapted to each platform's syntax, and both forward and backwards citation chaining were used for influential models and Indonesian institutional studies. The main publication window of 2005–2026 was selected to capture contemporary developments in microinsurance, takaful and Islamic social finance while retaining Dercon's 2005 foundational synthesis on poverty risk. Earlier work was retained only when it supplied a foundational concept not adequately represented in later literature, notably the role of infaq in poverty alleviation (Malik & Hussain, 1994).

A source was eligible when it provided empirical evidence, institutional analysis or authoritative guidance for at least one stage of the protection lifecycle: household vulnerability and demand; affordability and contribution support; product or risk-pool design; community distribution; claims and consumer protection; Shariah or prudential governance; or household recovery. Studies restricted to corporate takaful, general Islamic banking without a protection implication, purely doctrinal discussion without operational consequences and untraceable promotional material were excluded. DOI records, publisher metadata or official institutional pages were used to confirm bibliographic information.

The final evidence base contained 30 substantive publications and seven methodological or policy sources. The substantive group included household and microenterprise studies, microtakaful adoption and product research, BMT studies, Islamic

social-finance integration models and microinsurance impact evidence. The supporting group comprised systematic-review methods, qualitative-synthesis guidance, microtakaful regulatory work and an institutional report on Islamic finance and shared prosperity (Page et al., 2021; Paul & Criado, 2020; Snyder, 2019; Thomas & Harden, 2008; Islamic Financial Services Board & International Association of Insurance Supervisors, 2015; World Bank & Islamic Development Bank Group, 2017). Because Google Scholar, publisher search pages, and other dynamic discovery platforms do not provide stable, reproducible platform-wide hit counts, the initial identification, deduplication, and title/abstract screening totals could not be reconstructed retrospectively without fabrication. The revised report, therefore, uses a PRISMA-informed flow that explicitly marks those stages as not retrospectively reconstructable (NR) and reports the auditable count available from the retained-source ledger: 37 verified retained sources, comprising 30 substantive and seven methodological/policy sources. This departure from conventional database-export PRISMA counting is treated as a reporting limitation rather than being replaced with estimated numbers.

The verification ledger served as the audit unit for retained sources. For each item, it recorded the source, publication type, country or geographical scope, relevance to the protection lifecycle, DOI or official location, and the specific evidence contribution. The study-characteristics table reports these fields in condensed form for the 30 substantive publications, while Appendix A provides the complete ledger, including the seven methodological or policy sources.

Coding proceeded in two stages. First-cycle coding extracted evidence on the participant journey: shock exposure, willingness and ability to contribute, comprehension, enrolment, payment continuity, underwriting, claims documentation, claim timing, dispute handling and recovery. It also extracted institutional variables, including fund ownership, remuneration, reserves, deficit treatment, data responsibility and Shariah oversight. In the second cycle, the codes were organised into six lifecycle functions: interface, affordability, pooling, claims, assurance and outcomes. Contradictions were retained rather than forced into consensus. For example, social subsidy increases access but may reduce sustainability if it is permanent and untargeted; BMT involvement can lower transaction costs but can also blur accountability.

Quality appraisal did not use a single numerical score. Instead, relevance, transparency and evidential proximity were applied as design-sensitive criteria. Empirical studies were examined for clarity of population, sampling, variables, analytical method, and limits to causal inference; conceptual or model papers were assessed for internal coherence, clarity of funding flows, stakeholder specification, and consistency with regulatory functions; institutional and policy documents were assessed for authority, scope, and publication transparency. Evidential proximity determined interpretive weight: direct evidence on low-income protection received greater weight than adjacent or purely conceptual claims. Sources with limited methods were used only for contextual or exploratory propositions and were not treated as evidence of impact. Conceptual models

were therefore treated as design propositions rather than evidence that an integrated programme is effective.

Reviewer involvement and bias control. The original search was not prospectively documented as an independent duplicate-screening exercise; accordingly, this review does not report an inter-rater agreement statistic or claim to have conducted blinded dual-reviewer screening. To reduce ambiguity in selection and interpretation in the revised report, the inclusion logic, source-verification fields, coding categories, and interpretive weighting are made explicit. Future updates should prospectively log reviewer-level screening decisions, independent checks and the procedure used to resolve disagreements.

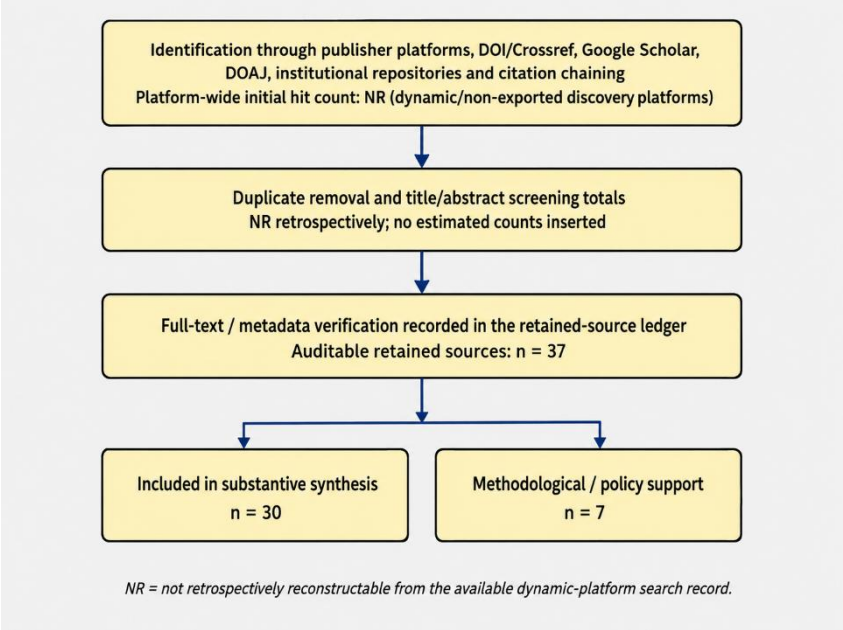

Figure 1. PRISMA-informed source flow for a review using dynamic discovery platforms. NR = not retrospectively reconstructable.

Table 1. Evidence streams and analytical questions

Evidence stream	Typical evidence	Question answered in this review
Household vulnerability and microinsurance	Poverty-risk studies; impact and insurability research	Which losses create irreversible financial adjustment, and what outcomes indicate recovery?
Microtakaful demand and regulation	Adoption surveys; product and regulatory studies	Which price, knowledge, access, claims and governance conditions affect meaningful participation?
Islamic social finance integration	*Infaq*, *zakat*, waqf and blended-finance models	How can social resources support access without replacing actuarial discipline?

BMT and community intermediation	Institutional, legal and operational studies	Which tasks can community institutions perform, and which must remain with a licensed operator?

Table 2. Characteristics of the 30 substantive publications included in the synthesis

Study	Country/scope	Method/type	Population/context	Main finding/contribution	Lifecycle function
Abdul Rahman & Dean (2013).	Multi-country / Islamic microfinance	Institutional/literature analysis	Islamic microfinance institutions	Governance and capacity constraints in Islamic microfinance	Interface/governance
Ahmed (2016)	General / Islamic microenterprise	Conceptual/analytical study	Microenterprises and financing protection	Microtakaful can complement financing against defined losses	Pooling/recovery
Alhammadi (2025)	Indonesia	Qualitative content analysis	Takaful and financial inclusion	Opportunities, regulatory conditions and sustainability	Access/regulation
Arsyianti et al. (2018).	Indonesia	SEM survey (n=1,780)	Low-income households	Debt-taking, charity and resilience considerations	Affordability/outcomes
Ascarya (2022)	Indonesia	Islamic social-finance analysis	COVID-19 recovery context	Islamic social finance as crisis-response and recovery support	Affordability/recovery
Bangaan Abdullah et al. (2022).	Malaysia	Quantitative adoption study	Low-income earners	Affordability, knowledge, control and provider factors shape participation.	Interface/adoption

Study	Country/scope	Method/type	Population/context	Main finding/contribution	Lifecycle function
Biener & Eling (2012).	International	Analytical review	Microinsurance markets	Insurability constraints and design responses in low-income markets	Product design/pooling
Churchill (2007)	International	Market/industry analysis	Low-income insurance market	Simple benefits and servicing economics are central to viability	Product design
Clarke & Dercon (2016).	International	Policy/theoretical synthesis	Poverty and disasters	Ex ante protection can reduce damaging post-shock adjustment	Vulnerability/outcomes
Dercon (2005)	International	Edited empirical/theoretical volume	Poverty, risk and insurance	Uninsured risk alters coping and long-term welfare	Vulnerability/outcomes
Fianto et al. (2019).	Indonesia	Empirical financing study	Islamic microfinance clients	Financing outcomes depend on institutional and client conditions	Interface / BMT
Hamzah & Yudiawan (2023)	Indonesia	Mixed methods	West Papua communities during COVID-19	Infaq contributes to socio-economic resilience when credibly governed	Social support/recovery

Study	Country/scope	Method/type	Population/context	Main finding/contribution	Lifecycle function
Haneef et al. (2015).	Bangladesh	Case/model study	Waqf-Islamic microfinance model	Demonstrates social-finance integration for poverty reduction	Social-finance integration
Jaenudin et al. (2018).	Indonesia	Best-practice/model analysis	Ta'awun fund arrangements	Highlights the design of mutual-support funding mechanisms	Affordability/pooling
Mahadi et al. (2024).	Malaysia	PLS-SEM (n=330)	Women SMEs	Islamic social finance is associated with financial resilience	Recovery/outcomes
Malik & Hussain (1994).	Pakistan	Empirical/analytical study	Poverty and infaq	Foundational evidence on infaq and poverty alleviation	Social support
Mikail et al. (2017).	Malaysia	Exploratory study	Zakat/waqf in microtakaful	Charitable funds may support microtakaful access under defined rules	Affordability/pooling
Mursal et al. (2023).	Indonesia	Institutional case analysis	Muhammadiyah ZIS institutions / COVID-19	Voluntary social funds can support a rapid social and economic response	Emergency support/recovery

Study	Country/scope	Method/type	Population/context	Main finding/contribution	Lifecycle function
Oppong et al. (2024).	Ghana	PSM/Tobit/Probit (n=1,453)	Low-income households	Microinsurance participation is linked to stronger financial resilience outcomes.	Outcomes
Rapi & Kassim (2023a)	Indonesia	Theory of Planned Behaviour survey	Prospective microtakaful participants	Attitudes, control and trust shape participation intentions	Interface/adoption
Rapi & Kassim (2023b).	East Java, Indonesia	Low-income household survey	Low-income households	Affordability and acceptance factors influence microtakaful uptake	Interface/adoption
Robbani et al. (2020).	Indonesia	Cross-sectional survey (n=1,001)	Borrowers from five Islamic MFIs	Relationship lending and commercialisation create monitoring/governance trade-offs.	BMT governance
Rohman et al. (2022).	Indonesia	Institutional/regulatory analysis	BMT architecture	Legal form and governance arrangements vary across BMTs	Accountability / BMT
Rusydiana & Devi (2017)	Indonesia	AHP expert study	Microtakaful development stakeholders	Identifies institutional priorities for microtakaful development	Institutional / product strategy

Study	Country/scope	Method/type	Population/context	Main finding/contribution	Lifecycle function
Shamsudheen & Muneeza (2024).	General / Islamic finance	Conceptual model	Blended Islamic social finance-microtakaful	Maps integrated funding architecture for microtakaful	Social-finance integration
Tamanni et al. (2022).	Indonesia	Delphi + ANP	Islamic social/commercial finance stakeholders	Examines integration of social and commercial finance and governance priorities	Institutional integration
Widiastuti et al. (2022).	Indonesia	Grounded theory + Average Weighted Index	Islamic social-finance programmes	Develops an integrated governance framework for Islamic social finance	Social support/governance
Wulandari (2019)	Indonesia	Qualitative interviews/literature	BMT and bottom-of-the-pyramid clients	Clarifies Baitul Maal's role and social-commercial separation	BMT governance
Wulandari & Kassim (2016)	Indonesia	Structured interviews	Central and regional BMTs	Documents operational challenges in financing poor households	BMT capability/governance
Wulandari et al. (2016).	Indonesia	Content analysis + in-depth interviews	BMT financing processes	Maps pre-, during- and post-financing service processes	BMT interface/service

Table 3. Primary evidence-stream distribution across the 30 substantive publications

Primary evidence stream	Publications (n)	Interpretive note
Household vulnerability and microinsurance	6	Risk exposure, insurability and recovery outcomes
Microtakaful demand and product development	6	Adoption, product strategy, affordability and trust
Islamic social-finance integration	11	Infaq/zakat/waqf, blended finance and social-support design
BMT/community intermediation	7	Delivery, governance, accountability and service processes

RESULTS AND DISCUSSION

The evidence map reveals four bodies of knowledge that rarely meet in a single analysis. Primary coding of the 30 substantive publications yielded six publications centred on household vulnerability and microinsurance, six on microtakaful demand and product development, eleven on Islamic social-finance integration, and seven on BMT/community intermediation (Table 3). These counts assign each publication to its principal evidence stream for descriptive purposes; secondary coding allowed individual sources to contribute to more than one lifecycle function. Poverty and microinsurance studies explain why uninsured risk can reverse welfare gains. Microtakaful studies identify adoption, product and institutional constraints. Islamic social-finance research demonstrates the potential and governance requirements of charitable resources. BMT studies explain the value and limits of community-based intermediation. The combined evidence supports a systems conclusion: protection fails not only because a product is absent, but because responsibilities and resources can be misaligned across the participant journey.

The first recurrent failure is a finance-protection mismatch. Microfinance institutions may insure the outstanding financing or require a narrow death benefit, leaving the household's broader recovery needs uncovered. This arrangement can protect the lender's portfolio more effectively than the participant's welfare. Illness generates treatment costs and lost labour; death creates funeral and replacement-income needs; a flood can destroy inventory and housing simultaneously. A benefit tied only to the remaining balance of financing may therefore leave the family with no cash for recovery (Ahmed, 2016; Fianto et al., 2019; Oppong et al., 2024). Synthesis implication: the reviewed evidence indicates that coverage should begin with a household loss map and a minimum recovery objective rather than the institution's credit exposure. This is an author-derived design proposition informed by the reviewed studies, not a directly tested programme effect.

A household-centred loss map need not produce an expensive multi-risk policy. The microinsurance literature favours simplicity when servicing costs and comprehension

constraints are significant. A small number of high-value benefits—such as hospital cash, funeral support or a defined business-interruption payment—may be more useful than broad nominal coverage with numerous exclusions. The benefit should be sufficient to prevent a predictable coping response, such as selling inventory or borrowing on an emergency basis. This approach shifts product evaluation from the number of covered events to the amount of harmful financial adjustment avoided (Biener & Eling, 2012; Churchill, 2007).

The second failure is unstable support for contributions. Low-income households may value protection but be unable to maintain fixed contributions during seasonal or irregular income periods. Social finance can bridge this gap, yet a permanent universal subsidy creates its own vulnerability because donation income is uncertain, donor priorities can shift, and participants may never learn the actual cost of protection (Ascarya, 2022; Hamzah & Yudiawan, 2023; Jaenudin et al., 2018; Mahadi et al., 2024). Synthesis implication: the evidence supports adaptive, explicitly governed support rather than a binary choice between full payment and full subsidy. Infaq can finance an initial or vulnerability-based share while participants co-contribute according to cash-flow capacity; reassessment can increase support after a shock and reduce it when income stabilises. This is a design proposition to be tested empirically.

Table 4. Recurrent system failures, design responses and supporting evidence

System failure	Observed consequence	Design response	Evidence base
Finance–protection mismatch	Coverage protects the financing balance but not the household recovery	Use a household loss map and minimum recovery objective before defining benefits	Ahmed (2016); Fianto et al. (2019); Oppong et al. (2024); Biener & Eling (2012)
Unstable contribution support	High lapse risk or dependence on annual donations	Apply explicit co-contribution, reassessment and shock-responsive support rules	Ascarya (2022); Hamzah & Yudiawan (2023); Jaenudin et al. (2018); Mahadi et al. (2024)
Claims-related trust erosion	Late or opaque claims trigger debt, asset sales and distrust	Design documents, service standards and complaints before enrolment	Bangaan Abdullah et al. (2022); Fikri et al. (2022); Rapi & Kassim (2023a, 2023b); IFSB & IAIS (2015)

System failure	Observed consequence	Design response	Evidence base
Blurred institutional responsibility	Commingled funds and uncertainty over who owes the benefit	Separate social support, participant risk and operator accounts and mandates	Tamanni et al. (2022); Widiastuti et al. (2022); Rohman et al. (2022); Wulandari (2019); Wulandari & Kassim (2016)

This use of infaq should be separated into four distinct functions rather than treated as a single subsidy. First, the contribution subsidy is an ex ante affordability support that pays a defined share of a participant's contribution, subject to disclosed eligibility and reassessment rules. Second, direct emergency assistance is ex post relief for urgent or uninsurable needs and should remain outside the contractual obligation to claim. Third, risk-pool or contingency financing may be used only where Shariah, legal and actuarial rules expressly permit it and must not conceal inadequate pricing or undocumented deficits. Fourth, education, enrolment and other public-good administrative costs may be financed when donor intent permits, with the amount and purpose disclosed separately from participant contributions. Donor restrictions, unused balances and administrative costs should be transparent. Zakat and waqf may perform related functions where their jurisprudential and legal conditions allow, but the instruments should not be treated as interchangeable (Haneef et al., 2015; Malik & Hussain, 1994; Mikail et al., 2017; Mursal et al., 2023; Shamsudheen & Muneeza, 2024; Widiastuti et al., 2022).

The third failure is claims-related trust erosion. Demand studies often focus on intention to enrol, yet protection is ultimately tested through the claims process. A low contribution cannot compensate for ambiguous exclusions, difficult documentation or slow payment. For households with limited liquidity, a delayed claim can have the same welfare effect as a rejection because debt or asset sales occur immediately (Bangaan Abdullah et al., 2022; Fikri et al., 2022; Rapi & Kassim, 2023a, 2023b). Synthesis implication: claims design should be treated as a participant-protection function. Exclusions, required documents, service standards, acceptance/rejection reporting, reasons for rejection and complaint escalation should be defined before enrolment. The claims process is therefore a critical trust event, not evidence by itself that the wider framework is effective.

BMTs can improve the claims journey by helping participants notify losses and assemble documents, and their local presence may be particularly valuable where digital literacy is uneven. Nevertheless, assistance must not be confused with decision authority. The licensed takaful operator should issue the certificate, underwrite the risk, maintain reserves, decide claim eligibility and pay valid claims. The BMT's role should be defined through an authorised distribution or service agreement that covers training, collection, remittance, data protection, remuneration, complaint escalation, and audit rights. Accountability should be explicit for each service; conflicts of interest should be managed

where financing and protection are offered to the same household; participant data ownership and use should follow consent and purpose limitation; remuneration should not reward unsuitable enrolment; complaints should have a documented path from BMT to operator and independent review; and regulatory boundaries should prevent the BMT from underwriting, guaranteeing benefits or making final claim decisions. This arrangement uses BMT trust without creating the false impression that the BMT bears insurance risk (Robbani et al., 2020; Rohman et al., 2022; Wulandari, 2019; Wulandari & Kassim, 2016; Wulandari et al., 2016).

The fourth failure is blurred institutional responsibility. Integration is often presented as organisational synergy, but participants need to know who is accountable for each promise. At least three financial identities should be distinguishable: the social-support account, the participant risk fund and the operator account. The first pays approved support in accordance with donor and Shariah rules. The second receives tabarru' contributions and pays covered claims. The third receives disclosed fees and meets the operator's contractual obligations. If accounts are commingled, ownership, surplus treatment, deficit responsibility and the true cost of the programme become difficult to determine (Islamic Financial Services Board & International Association of Insurance Supervisors, 2015; Tamanni et al., 2022; Widiastuti et al., 2022). Synthesis implication: integration requires ring-fenced accounts, published mandates and independent reconciliation so that ownership, deficit responsibility, fees and claim liability remain observable. This is a governance design proposition derived from the synthesis rather than a demonstrated programme effect.

These findings are organised into the proposed Solidarity Protection Stack shown in Figure 2. The stack has four layers. The first is the household interface, where needs assessment, consent, benefit comprehension, flexible payment and claims assistance occur. The second is the affordability and social-support layer, which applies eligibility criteria, sets the social-fund share, collects participant co-contributions and manages reassessment and graduation. The third is licensed risk management, where the takaful operator manages the participant risk fund, pricing, reserves, underwriting, claims and retakaful. The fourth is assurance and public value, which includes independent Shariah review, consumer protection, audit, data privacy, complaint oversight and evaluation of household recovery. Figure 2 also distinguishes the directions of information, social support and contribution funds, claim notification and documentation, claim payment/coverage confirmation, and cross-layer accountability.

The layered architecture matters because it prevents one institution from controlling every stage. A BMT may be highly effective at the first layer, but should not govern the participant risk fund or make final claim decisions. A social-finance institution may determine eligibility at the second layer but should not direct individual claim decisions. A takaful operator manages risk at the third layer but should not unilaterally define social vulnerability. Independent assurance functions should have access to the complete participant journey while remaining sufficiently separate from both the BMT and the operator to review Shariah compliance, fund segregation, complaints, audit findings and

recovery outcomes. In this way, the four layers respond directly to the four observed failures: household-centred interface design counters finance-protection mismatch; the affordability layer governs contribution support; licensed risk management clarifies claims liability; and independent assurance addresses blurred accountability.

Comparison with existing models further clarifies the contribution. Waqf-microfinance and zakat/waqf-microtakaful models demonstrate how charitable resources can expand access (Haneef et al., 2015; Mikail et al., 2017), while blended Islamic social-finance models map broader integration options (Shamsudheen & Muneeza, 2024; Tamanni et al., 2022; Widiastuti et al., 2022). The Solidarity Protection Stack does not claim novelty from inventing these instruments. Its contribution is the combined institutional logic: the participant lifecycle becomes the organising unit; social-support funds are separated from participant risk and operator accounts; BMT service roles are separated from licensed risk-bearing decisions; selected assurance functions are explicitly independent; and household recovery becomes the primary outcome domain. These features translate general integration into a governance and service architecture that can be empirically tested.

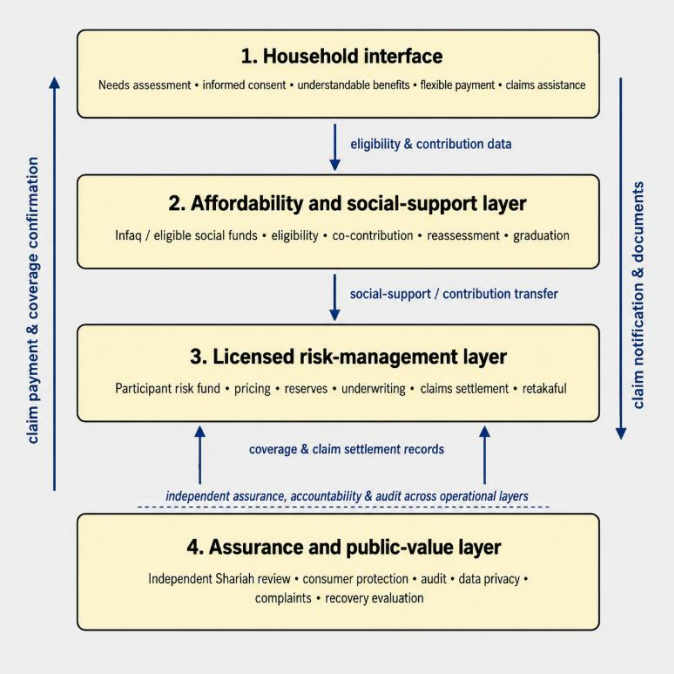

Figure 2. Proposed Solidarity Protection Stack for vulnerable households, including fund, information, claims and accountability flows

Table 5. Institutional responsibilities and independence safeguards in the proposed Solidarity Protection Stack

Layer	Lead responsibility	Minimum controls
Household interface	Authorised BMT/community channel	Needs assessment, informed consent, proof of coverage, claims assistance
Affordability and social support	*Infaq*/social-finance institution	Eligibility, permitted uses, participant share, reassessment, and donor reporting.
Licensed risk management	*Takaful* operator	Pricing, underwriting, participant risk fund, reserves, claims and retakaful
Assurance and public value	Independent Sharia, audit and consumer-protection functions; joint committee only for operational coordination	Independent review of Shariah compliance, fund segregation, audit and complaint escalation; coordinated monitoring of data privacy, service performance and recovery outcomes

The framework also changes the meaning of programme performance. Enrolment, donated funds, and contribution collection are activity indicators. They do not demonstrate protection. Outcome measurement should test whether the household avoided harmful coping actions and restored essential functions after a covered event. Indicators can include emergency debt, distress asset sales, days of business interruption, maintenance of essential consumption, claim payment time, renewal, comprehension, complaints and participant contribution as a share of disposable income. A pilot should collect baseline data and, where feasible, compare covered households with a defensible counterfactual. The objective is not to prove that every payment eliminates vulnerability, but to establish whether the system improves the speed and quality of recovery.

Five design propositions follow from the synthesis. First, the benefit package should be defined by household recovery needs rather than lender exposure. Second, social finance should reduce entry barriers through explicit, reviewable and time-sensitive rules; it should not conceal structurally inadequate pricing. Third, community institutions should support access and servicing while licensed operators retain risk-bearing functions. Fourth, the claims process is a critical trust event and should be designed before the marketing campaign. Fifth, all partners should be evaluated against recovery and participant-rights indicators, not solely against enrolment or fund mobilisation. These propositions are synthesis-derived hypotheses for pilot design and evaluation, not claims of established effectiveness.

For Indonesia, a practical pilot could begin with one city or district, a small number of BMTs and one licensed takaful operator. The social-finance partner would establish a restricted support account and publish eligibility and reassessment rules. Participating households would select from one or two simple benefit packages after a documented explanation. Co-contributions could follow the household's cash-flow cycle rather than a

rigid monthly schedule. The BMT would collect authorised payments and provide claims assistance; the operator would reconcile certificates and settle valid claims in accordance with a published service standard. A coordination committee could monitor implementation, but Shariah review, financial audit, and complaint escalation should retain independent routes so that operational partners do not review only their own decisions.

The policy implications are equally important. Proportional regulation should reduce unnecessary costs without reducing consumer protection. Regulators may facilitate group enrolment, digital consent and simplified documents, but the status of the risk carrier must remain clear. Social-finance and cooperative authorities need coordination with insurance supervisors because the programme crosses institutional boundaries. The legal treatment of subsidies, distribution fees, participant data, surplus and deficit should be settled before scale. Alhammadi (2025) and Fikri et al. (2022) both emphasise that inclusion depends on supportive regulation and sustainable operating arrangements, not simply market potential.

The review also identifies a research agenda. Demand studies should use actual benefit and price scenarios rather than general attitudes towards takaful. Actuarial work should estimate claim frequency, contribution adequacy and reserve needs for simple benefit packages. Organisational research should test service agreements and data flows between BMTs, social-finance institutions and operators. Impact evaluations should measure recovery, not merely adoption. Finally, research should compare alternative social-fund rules: full temporary support, matched contributions, sliding subsidies, and shock-triggered re-entry to determine which arrangements best balance access, continuity, and dignity.

Several limitations require caution. The review integrates diverse jurisdictions and methods, and the number of studies directly evaluating infaq-funded microtakaful remains small. Some design propositions are therefore inferences from adjacent evidence on inclusive insurance, Islamic social finance and BMT governance. The source-discovery process used dynamic platforms, so complete initial identification, duplicate removal, screening, and exclusion counts could not be reconstructed retrospectively; these stages are explicitly reported as NR rather than estimated. In addition, the original search was not prospectively documented as an independent duplicate-screening exercise, so no inter-rater agreement statistic is claimed. The Solidarity Protection Stack is a synthesis-derived design framework, not proof that a specific programme is legally permissible, Shariah-compliant in every jurisdiction, actuarially viable or operationally effective. Its next test must include legal, Shariah, actuarial, and operational validation, followed by a controlled pilot and outcome evaluation.

CONCLUSION

Low-income financial inclusion becomes fragile when access to credit and payments is not accompanied by credible protection against shocks. The evidence reviewed here suggests that the main challenge is not a shortage of Islamic instruments,. However, the way responsibilities, funds and service standards are arranged around the participant's

protection journey. Islamic social finance can improve affordability, BMTs can reduce access and servicing costs, and microtakaful can pool risk, but none of these functions should absorb the responsibilities of the others.

The proposed Solidarity Protection Stack separates four layers: the household interface, affordability and social support, licensed risk management, and assurance and public value. Infaq is treated as transitional or vulnerability-responsive access capital with distinct uses for contribution support, emergency assistance, explicitly governed contingency support, and permissible public-good costs. BMTs can educate, aggregate, collect and assist, while the licensed takaful operator remains accountable for underwriting and claims. Independent Shariah review, consumer protection, audit, complaint escalation, data privacy and recovery measurement provide cross-layer assurance.

The Solidarity Protection Stack should therefore be interpreted as a proposed framework requiring empirical validation, not as evidence that a specific programme has already demonstrated effectiveness. The evidence base is heterogeneous across countries and methods, direct evaluations of infaq-funded microtakaful remain limited, and the dynamic discovery process prevents reconstruction of complete initial platform hit counts. The next empirical stage is a controlled pilot preceded by legal, Shariah and actuarial validation and followed by outcome evaluation of claims timeliness, harmful coping, household recovery, complaints, renewal and financial viability. A successful programme would be demonstrated by clear, timely benefits, improved recovery, and durable accountability, rather than by enrolment or fund mobilisation alone.

REFERENCES

Abdul Rahman, A. R., & Dean, F. (2013). Challenges and solutions in Islamic microfinance. Humanomics, 29(4), 293–306. https://doi.org/10.1108/H-06-2012-0013

Ahmed, M. H. (2016). Micro takaful insurance as a tool to guarantee financing and protect micro enterprises. Journal of Business & Financial Affairs, 5(4), 228. https://doi.org/10.4172/2167-0234.1000228

Alhammadi, S. (2025). Expanding financial inclusion in Indonesia through Takaful: Opportunities, challenges and sustainability. Journal of Financial Reporting and Accounting, 23(6), 2738–2757. https://doi.org/10.1108/JFRA-05-2023-0256

Arsyianti, L. D., Kassim, S., & Adeyemi, A. A. (2018). Debt taking and charity giving among low-income households: Strengthening resilience in Islamic perspective. Journal of Islamic Monetary Economics and Finance, 4(1), 1–22. https://doi.org/10.21098/jimf.v4i1.739

Ascarya. (2022). The role of Islamic social finance in Indonesia's economic recovery during the COVID-19 pandemic. International Journal of Islamic and Middle Eastern Finance and Management, 15(2), 386–405. https://doi.org/10.1108/IMEFM-07-2020-0351

Bangaan Abdullah, H.-S., Yakob, R., Yakob, S., & Sharif, N. S. (2022). Indicators of having a micro-family takaful plan amongst low-income earners. Journal of Islamic Marketing, 13(12), 2695–2716. https://doi.org/10.1108/JIMA-05-2020-0128

Biener, C., & Eling, M. (2012). Insurability in microinsurance markets: An analysis of problems and potential solutions. The Geneva Papers on Risk and Insurance—Issues and Practice, 37, 77–107. https://doi.org/10.1057/gpp.2011.29

Churchill, C. (2007). Insuring the low-income market: Challenges and solutions for commercial insurers. The Geneva Papers on Risk and Insurance—Issues and Practice, 32, 401–412. https://doi.org/10.1057/palgrave.gpp.2510132

Clarke, D. J., & Dercon, S. (2016). Dull disasters? Planning ahead will make a difference. Oxford University Press. https://doi.org/10.1093/acprof:oso/9780198785576.001.0001

Dercon, S. (Ed.). (2005). Insurance against poverty. Oxford University Press. https://doi.org/10.1093/0199276838.001.0001

Fianto, B. A., Gan, C., & Hu, B. (2019). Financing from Islamic microfinance institutions: Evidence from Indonesia. Agricultural Finance Review, 79(5), 633–645. https://doi.org/10.1108/AFR-10-2018-0091

Fikri, S. M., Mohamed Naim, A., Maamor, S., Isa, M. Y., Ahmad, S. N., Shari, W., & Muhamed, N. A. (2022). Rules and regulations review on micro-takaful scheme development in Malaysia. Qualitative Research in Financial Markets, 14(4), 509–525. https://doi.org/10.1108/QRFM-02-2021-0030

Hamzah, A., & Yudiawan, A. (2023). The contribution of infaq funds to socio-economic resilience during COVID-19 pandemic: An Islamic economics insight from Indonesia. HTS Teologiese Studies/Theological Studies, 79(1), a8213. https://doi.org/10.4102/hts.v79i1.8213

Haneef, M. A., Pramanik, A. H., Mohammed, M. O., Amin, M. F. B., & Muhammad, A. D. (2015). Integration of waqf-Islamic microfinance model for poverty reduction: The case of Bangladesh. International Journal of Islamic and Middle Eastern Finance and Management, 8(2), 246–270. https://doi.org/10.1108/IMEFM-03-2014-0029

Islamic Financial Services Board, & International Association of Insurance Supervisors. (2015). Issues in regulation and supervision of microtakāful (Islamic microinsurance).

Jaenudin, D., Firdaus, A., Afendi, F. M., & Possumah, B. T. (2018). Analysis of ta'awun fund model best practice from Indonesia. IKONOMIKA, 3(2), 139–166. https://doi.org/10.24042/febi.v3i2.3497

Mahadi, N. F., Yusuf, M.-B. O., Kassim, S., & Mohd Yusoff, S. S. (2024). Financial resilience among women small and medium enterprises in Malaysia during and after COVID-19: The role of Islamic social finance. Journal of Islamic Monetary Economics and Finance, 10(4), 631–656. https://doi.org/10.21098/jimf.v10i4.2009

Malik, S. J., & Hussain, S. (1994). Role of infaq in poverty alleviation in Pakistan. The Pakistan Development Review, 33(4), 935–952. https://doi.org/10.30541/v33i4IIpp.935-952

Mikail, S. A., Ahmad, M. A. J., & Adekunle, S. S. (2017). Utilisation of zakāh and waqf fund in micro-takāful models in Malaysia: An exploratory study. ISRA International Journal of Islamic Finance, 9(1), 100–105. https://doi.org/10.1108/IJIF-07-2017-010

Mursal, M., Ritonga, M., Sartika, F., Lahmi, A., Nurdianto, T., & Alam, L. (2023). The contribution of Amil Zakat, Infaq and Shadaqah Muhammadiyah institutions in handling the impact of COVID-19. Journal of Sustainable Finance & Investment, 13(1), 118–124. https://doi.org/10.1080/20430795.2021.1886550

Oppong, E. O., Yu, B., & Mazonga Mfoutou, B. O. (2024). The effect of microinsurance on the financial resilience of low-income households in Ghana: Evidence from a propensity score matching analysis. The Geneva Papers on Risk and Insurance—Issues and Practice, 49(3), 474–500. https://doi.org/10.1057/s41288-024-00325-0

Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., … Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. BMJ, 372, n71. https://doi.org/10.1136/bmj.n71

Paul, J., & Criado, A. R. (2020). The art of writing literature review: What do we know and what do we need to know? International Business Review, 29(4), 101717. https://doi.org/10.1016/j.ibusrev.2019.101717

Rapi, M. Z. H., & Kassim, S. (2023a). Perception and intention to participate in microtakaful scheme among Indonesians: An application of Ajzen's theory of planned behaviour. Journal of Islamic Monetary Economics and Finance, 9(1), 133–166. https://doi.org/10.21098/jimf.v9i1.1615

Rapi, M. Z. H., & Kassim, S. (2023b). Indonesian low-income households' acceptance of microtakaful in East Java. Journal of Islamic Monetary Economics and Finance, 9(4), 637–660. https://doi.org/10.21098/jimf.v9i4.1898

Robbani, M. G., Aulia, R., & Humaira, A. (2020). Progressive financing in Indonesian Islamic microfinance institutions: Improved monitoring or distinctive commercialisation? Journal of Islamic Monetary Economics and Finance, 6(3), 641–666. https://doi.org/10.21098/jimf.v6i3.1183

Rohman, P. S., Laila, N., & Shofawati, A. (2022). Baitul Mal Wat Tamwil architectural map: Institutional and regulatory analysis. Perisai: Islamic Banking and Finance Journal, 6(1). https://doi.org/10.21070/perisai.v6i1.1583

Rusydiana, A. S., & Devi, A. (2017). Development strategy of microtakaful institutions: Case study working group Indonesia. ETIKONOMI, 16(2), 265–278. https://doi.org/10.15408/etk.v16i2.5267

Shamsudheen, S. V., & Muneeza, A. (2024). Blended Islamic social finance–microtakāful model. International Journal of Islamic Finance and Sustainable Development, 16(3), 151–169. https://doi.org/10.55188/ijifsd.v16i3.906

Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. Journal of Business Research, 104, 333–339. https://doi.org/10.1016/j.jbusres.2019.07.039

Tamanni, L., Indra, I., Syamlan, Y. T., & Priantina, A. (2022). Islamic social finance and commercial finance: A marriage made in heaven? Journal of Islamic Accounting

and Business Research, 13(8), 1216–1233. https://doi.org/10.1108/JIABR-01-2021-0018

Thomas, J., & Harden, A. (2008). Methods for the thematic synthesis of qualitative research in systematic reviews. BMC Medical Research Methodology, 8, 45. https://doi.org/10.1186/1471-2288-8-45

Widiastuti, T., Ningsih, S., Prasetyo, A., Mawardi, I., Herianingrum, S., Robani, A., Al Mustofa, M. U., & Hady, A. F. (2022). Developing an integrated model of Islamic social finance: Toward an effective governance framework. Heliyon, 8(9), e10383. https://doi.org/10.1016/j.heliyon.2022.e10383

World Bank, & Islamic Development Bank Group. (2017). Global report on Islamic finance: Islamic finance—A catalyst for shared prosperity? World Bank. https://doi.org/10.1596/978-1-4648-0926-2

Wulandari, P. (2019). Enhancing the role of Baitul Maal in giving Qardhul Hassan financing to the poor at the bottom of the economic pyramid: Case study of BMT in Indonesia. Journal of Islamic Accounting and Business Research, 10(3), 382–391. https://doi.org/10.1108/JIABR-01-2017-0005

Wulandari, P., & Kassim, S. (2016). Issues and challenges in financing the poor: Case of Baitul Maal Wa Tamwil in Indonesia. International Journal of Bank Marketing, 34(2), 216–234. https://doi.org/10.1108/IJBM-01-2015-0007

Wulandari, P., Kassim, S., Sulung, L. A. K., & Putri, N. I. S. (2016). Unique aspects of the Islamic microfinance financing process. Humanomics, 32(3), 230–247. https://doi.org/10.1108/H-09-2014-006