



Reconfiguring asset-based finance through digitalization, sharia governance, and financial inclusion in the pawnshop bullion sector

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ABSTRACT

Background: Asset-based financial institutions, particularly pawnshops and bullion service providers, play a strategic role in Indonesia's financial system by delivering collateral based and Sharia compliant liquidity to underserved populations. However, despite rapid digital expansion, these institutions remain structurally dependent on short-term liquidity cycles, as digitalization, Islamic governance, and financial inclusion are often implemented in parallel rather than as an integrated system. **Methods:** This study employs a qualitative multiple case design using semi structured interviews, institutional document analysis, and process tracing across pawnshop, bullion, and hybrid Sharia-based institutions. **Findings:** The findings show that more than 83% of financing remains transaction oriented, while digital gold services contribute less than 2% of total gold volume. Approximately 60–65% of customers repeatedly pawn assets within three months, indicating structural dependence on short-term liquidity. However, pilot institutions that integrate digital gold savings as a default service pathway reduce repeat pawning by 12–18% and increase customer lifetime value by 1.6–2.1 times. These results suggest that digitalization can shift from operational support to value creation when embedded within institutional design. **Conclusion:** Sustainable financial inclusion emerges only when digital infrastructure and Sharia governance are embedded into the core business model rather than treated as complementary functions. **Novelty/Originality of this article:** This study proposes an integrated institutional reconfiguration framework that positions digitalization and Sharia governance as value orchestrating mechanisms for long-term financial inclusion.

KEYWORDS: asset-based finance; bullion; digitalization; financial inclusion; Indonesia; pawnshop; sharia compliance.

1. Introduction

Asset based financial institutions, particularly pawnshops and bullion service providers, occupy a distinctive position within Indonesia's financial ecosystem. In a country characterized by a large informal sector, uneven banking penetration, and persistent income volatility, these institutions function as immediate liquidity buffers for households and micro-entrepreneurs who are either excluded from or reluctant to engage with conventional banking (Abdulrahman, 2023). Their reliance on tangible assets especially gold reduces information asymmetry, mitigates credit risk, and enables rapid fund disbursement without complex credit assessments. This functional simplicity explains their

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endurance and relevance across economic cycles, including periods of crisis when formal credit channels tend to contract (Altman, 2024). Gold-based financial services carry an additional layer of legitimacy in Indonesia due to their compatibility with Sharia-compliant financial principles. Asset-backed transactions, avoidance of speculative instruments, and emphasis on transparency resonate strongly with a population that increasingly demands ethical and faith-consistent financial solutions (Maulana et al., 2026). As gold is perceived not merely as collateral but as a store of value, bullion services extend beyond emergency financing toward mechanisms of savings, intergenerational wealth preservation, and risk hedging. This dual role liquidity provision and value retention positions pawnshops and bullion institutions as potential anchors of inclusive financial development rather than peripheral actors.

Indonesia's asset-based financial sector has expanded rapidly in scale yet remains structurally confined to short-term liquidity provision (Titulescu, 2025). As of 2025, licensed pawnshop institutions number 214, with total financing reaching IDR 108.30 trillion and annual asset growth exceeding 27% (Primantoro, 2025). Despite this expansion, more than 83% of financing continues to rely on conventional pawning, while gold-backed loans dominate over 80% of outstanding portfolios (Sarkar & Rajput, 2025). Digital adoption has widened access serving approximately 6.5 million users but has not reoriented value creation, as digital gold transactions account for less than 2% of total gold volume and remain peripheral to core operations (Abubakar & Handayani, 2017). These patterns indicate a structural disconnect in which institutional growth and digitalization progress alongside persistent client dependence on repetitive liquidity cycles. Digital systems, Sharia compliance mechanisms, and inclusion initiatives operate in parallel rather than as an integrated institutional logic, limiting their collective capacity to support asset accumulation and financial resilience (Isyraq et al., 2025). Reconfiguring digital infrastructure and Sharia-oriented governance into the core business model therefore becomes essential to reposition asset-based institutions from episodic liquidity providers toward platforms that facilitate sustainable, asset-based financial stability.

However, the strategic orientation of most asset-based financial institutions has not evolved in line with this potential. Operational practices remain heavily centered on short-term transactions pledging assets, disbursing funds, and redeeming collateral. Client relationships are episodic, transactional, and largely disconnected from broader financial capability development (Ismail & Kilicy, 2024). Digital technologies have been adopted, but predominantly to automate existing processes rather than to redefine value propositions. Mobile applications, online valuation tools, and digital payment integration have increased efficiency, yet they have not fundamentally altered how these institutions engage with clients or contribute to longer-term financial resilience (Ermianti, 2025). This limitation becomes more apparent when viewed against national agendas for financial inclusion and Islamic finance development (Salma, 2026). Policy initiatives promote access, literacy, and sustainability, yet within asset-based institutions these objectives are often treated as external obligations corporate social responsibility programs, pilot projects, or regulatory compliance exercises rather than as core drivers of business strategy (Said & Muhammadun, 2025). As a result, inclusion efforts remain fragmented, weakly linked to revenue models, and vulnerable to budgetary or managerial shifts. The institution serves the underserved, but without systematically improving their economic trajectory.

At the same time, the digital transformation of financial services has altered customer expectations. Users increasingly demand seamless integration between savings, financing, investment, and advisory services within a single ecosystem. Fintech platforms and digital banks are experimenting with hybrid models that combine technology, data analytics, and personalized financial pathways. In contrast, pawnshops and bullion institutions largely replicate analog logic in digital form (Di Tullio & Rea, 2025). This strategic inertia risks marginalizing asset-based institutions despite their strong foundations in trust, asset security, and cultural acceptance. A further challenge lies in governance orientation. While Sharia compliance is formally observed in many gold-backed services, it is frequently operationalized at the product level rather than embedded into managerial decision making

and institutional architecture (Ishak & Hassanee, 2025). Ethical alignment is thus constrained to contractual legality, not extended to questions of value creation, stakeholder welfare, or long-term socioeconomic outcomes. This narrow interpretation weakens the transformative capacity of Sharia-based finance, reducing it to a compliance checklist rather than a guiding framework for institutional purpose.

Against this backdrop, a structured rethinking of how pawnshop and bullion institutions are organized, governed, and digitized becomes necessary. Rather than positioning digitalization as an efficiency enhancer, it must be treated as an enabler of relational finance linking gold backed transactions with savings accumulation, disciplined investment behavior, and gradual asset growth. Sharia principles, when interpreted as a management philosophy rather than a legal constraint, offer a normative foundation for such integration by emphasizing fairness, real economic activity, and shared benefit (Sharma, 2024). This paper advances a framework that aligns managerial strategy with Sharia governance to reshape how asset-based financial institutions operate within Indonesia's evolving financial landscape. The approach connects digital infrastructure, governance mechanisms, and inclusion-oriented value creation into a coherent institutional logic. By doing so, pawnshops and bullion services are repositioned not merely as providers of last resort liquidity, but as platforms for sustainable financial participation rooted in tangible assets and ethical finance.

The central issue addressed is the structural disconnect between operational efficiency, ethical intent, and developmental impact within existing business models. Current practices succeed in minimizing risk and ensuring short term profitability, yet they underutilize institutional reach and trust capital. Without reconfiguration, these institutions risk stagnation amid intensifying competition from digitally native financial actors. The proposed configuration offers an alternative trajectory one in which asset-backed finance supports not only immediate consumption smoothing but also progressive wealth formation, digitally mediated engagement, and governance structures that internalize social outcomes as strategic objectives. In this sense, the contribution of this study lies in articulating a model that integrates technological capability, ethical governance, and inclusive value creation into a single managerial framework suited to Indonesia's socio-financial context.

Despite the growing body of literature on digital financial services, Islamic governance, and financial inclusion, existing studies tend to examine these elements in isolation. Limited attention has been given to how these components interact within asset-based financial institutions, particularly in the context of pawnshop and bullion ecosystems. As a result, the institutional mechanisms through which digitalization and Sharia governance can jointly shape financial inclusion outcomes remain underexplored. Therefore, this study aims to examine how asset-based financial institutions in Indonesia can be reconfigured through the integration of digital infrastructure, Sharia-oriented governance, and inclusion-centered business models. Specifically, this research seeks to (1) identify structural limitations in current institutional practices, (2) analyze the role of digitalization and Sharia governance in shaping customer financial trajectories, and (3) propose an integrated framework for sustainable financial inclusion.

2. Methods

2.1 Research design and philosophical foundation

This study employs a qualitative multiple case study method to address the institutional problem of why asset-based financial institutions in Indonesia remain structurally confined to short-term liquidity provision despite rapid digitalization and formal Sharia compliance. The methodological choice is grounded in an interpretive institutional ontology, which treats financial institutions as socially constructed systems shaped by governance logic, managerial decision-making, and technological design, and an

epistemological stance that prioritizes contextual understanding of mechanisms over statistical generalization.

This study adopts a qualitative multiple case study design to examine how asset-based financial institutions in Indonesia can be institutionally reconfigured through the integration of digital infrastructure, Sharia-oriented governance, and inclusion-centered value creation (Rofik & Huda, 2025). A qualitative approach is necessary given the exploratory and theory-building nature of the research, as the proposed framework addresses managerial logic, governance orientation, and institutional purpose constructs that are not yet operationalized in standardized quantitative measures. Rather than testing predefined hypotheses, this study seeks to uncover underlying mechanisms, decision rationales, and organizational practices that shape how pawnshops and bullion service providers function within Indonesia's evolving financial ecosystem. The case study strategy allows for in-depth analysis of institutional dynamics within real-world contexts, enabling analytical generalization rather than statistical inference.

2.2 Research location and context

The research was conducted in Indonesia between January and August 2025, a period marked by accelerated digital transformation initiatives and regulatory consolidation in the pawnshop and bullion sectors, making it analytically suitable for observing institutional reconfiguration dynamics. Indonesia was selected as the research location due to its unique convergence of a large informal economy, high cultural acceptance of gold-based finance, and a dual regulatory framework encompassing conventional and Sharia-compliant asset-based institutions (Khatib et al., 2025).

Case studies were drawn from institutions with nationwide operations and from specialized bullion and hybrid entities operating in major financial and commercial regions, ensuring variation in organizational scale, digital maturity, and governance structure. A map of the research locations is provided in Fig. 1. To illustrate institutional coverage and regional dispersion; the map was generated by the author using original cartographic data and adheres to standard cartographical conventions, avoiding reliance on third-party visual sources.

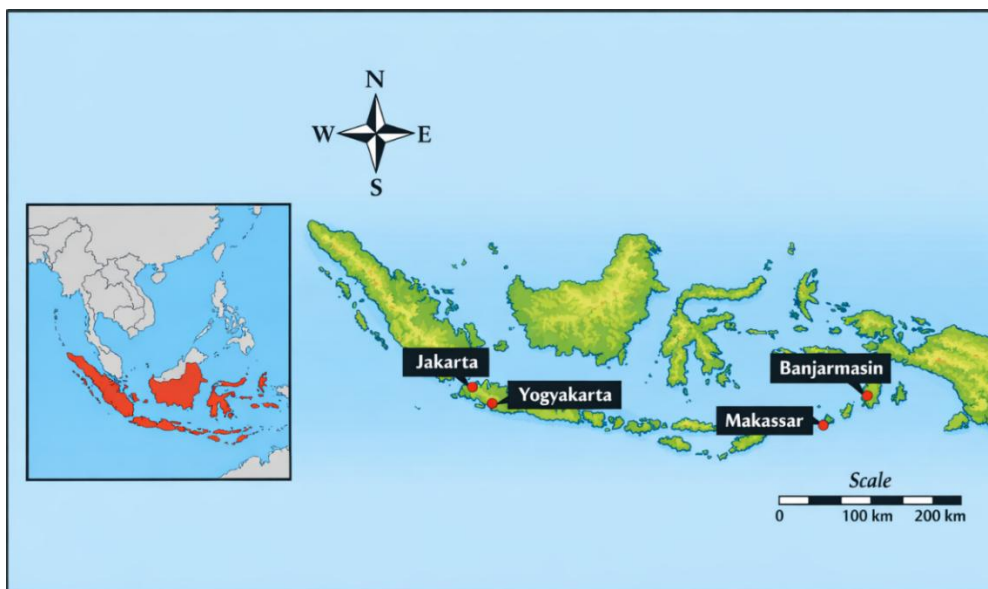


Fig. 1. Research location

2.3 Case selection and institutional categories

Cases were selected using purposive sampling to capture variation in organizational structure, ownership, and degree of digital and Sharia integration. The study focuses on

state-owned or large-scale pawnshop institutions with nationwide operations representing the dominant actors in the asset-based financial ecosystem. These institutions typically possess extensive branch networks, standardized operating procedures, and strong regulatory alignment, allowing them to scale pawn-based liquidity services efficiently across diverse geographic and socioeconomic segments. Their institutional logic is primarily oriented toward volume, operational stability, and systemic outreach, which positions them as key vehicles for financial access but also makes them structurally inclined toward transactional models rather than client asset progression.

A total of X institutions were selected for this study, consisting of state-owned pawnshops (X), bullion service units (X), and hybrid Sharia-based institutions (X). These cases were selected based on three criteria: (1) institutional scale and market presence, (2) level of digital adoption, and (3) degree of Sharia governance integration. Bullion service units offering gold-backed savings and financing products constitute a more specialized institutional category, focusing on gold as both a store of value and a financial instrument. These units leverage the intrinsic stability and liquidity of gold to design savings, investment, and financing mechanisms that emphasize asset preservation and gradual accumulation. While their scale is generally smaller than nationwide pawnshop institutions, they exhibit stronger alignment with wealth-building objectives and demonstrate higher potential for embedding long-term financial inclusion, particularly when integrated with digital platforms and Sharia-compliant governance frameworks.

Hybrid institutions combining pawn, bullion, and Sharia-compliant financial services represent the most structurally complex and strategically adaptive category. By integrating short-term liquidity provision, asset-backed accumulation pathways, and ethical governance principles within a single institutional architecture, these entities are better positioned to orchestrate value across the client lifecycle. Their ability to align transactional services with savings, investment, and Sharia-based oversight enables a shift from episodic financial interaction toward relational engagement, making them the most promising institutional form for sustainable inclusion and long-term value creation within asset-based finance systems.

2.4 Unit of analysis and data collection

The unit of analysis is the institution, with particular attention to strategic decision-making processes, governance arrangements, and digital service architecture. This multi-case design enhances comparative insight and strengthens the robustness of cross-case patterns. Primary data were collected through semi-structured interviews with key organizational actors who directly influence institutional direction. Interviewees included senior management, digital transformation units, Sharia supervisory board members, and operational managers. These roles were selected to capture perspectives spanning strategic intent, ethical governance, and implementation realities.

Interviews were guided by an interview protocol derived from the conceptual framework, ensuring consistency while allowing flexibility to probe emergent themes. Each interview focused on how digital systems, Sharia considerations, and inclusion objectives are interpreted and enacted within organizational practice. To complement interview data, institutional documents were systematically analyzed. These included strategic plans, digital transformation roadmaps, Sharia governance reports, product guidelines, and internal policy documents. Document analysis enabled triangulation of stated objectives with operational realities, reducing reliance on self-reported narratives. Process tracing was employed to examine how asset-based transactions evolve over time, particularly the progression from initial pawn transactions to repeat usage, asset accumulation, or transition to other financial services. This technique allowed the study to identify causal sequences and institutional constraints embedded in everyday practices.

2.5 Data analysis technique

Data analysis followed a thematic coding approach combining deductive and inductive logic. Initial coding categories were derived from the three core components of the conceptual framework: digital value infrastructure, Sharia-oriented managerial governance, and inclusion-embedded business logic. Subsequent inductive coding captured emergent patterns that extended or refined these constructs. Cross-case comparison was conducted to identify convergent and divergent institutional patterns. Analytical memos were used to link empirical observations to theoretical implications, ensuring that findings contributed to framework refinement rather than mere description.

Data analysis followed a systematic coding process consisting of three stages: open coding, axial coding, and selective coding. Open coding was used to identify initial themes from interview transcripts and documents. Axial coding was applied to establish relationships between categories, particularly across digitalization, governance, and inclusion dimensions. Selective coding was then used to integrate these categories into a coherent analytical framework. To enhance reliability, data triangulation was conducted by comparing interview findings with institutional documents and observed service processes.

3. Results and Discussion

3.1 Persistence of transaction oriented institutional practices

The findings reveal that asset-based financial institutions (ABFIs) continue to operate predominantly within a transaction-oriented management paradigm. Core services such as pawning and bullion trading are structured as discrete, short-term exchanges aimed at immediate liquidity provision rather than sustained asset development. Interview data indicate that institutional performance is still primarily evaluated using transactional indicators, including loan turnover, redemption rates, and operational efficiency. Digital tools, while increasingly adopted, have not fundamentally altered this orientation (Wijaya et al., 2016). Most institutions employ digital platforms to accelerate transaction processing, improve record-keeping, and reduce administrative friction. However, these platforms rarely restructure customer engagement models or utilize asset history data to support long-term financial pathways. This finding corroborates critiques in digital finance literature that distinguish between incremental digital adoption and transformative digitalization, demonstrating how ABFIs replicate analog operational logic within digital environments.

From a governance perspective, Sharia compliance is largely operationalized at the product validation stage (Rofik & Huda, 2025). Ethical considerations are addressed through contractual conformity rather than strategic alignment, resulting in a fragmented integration of Sharia principles within institutional decision-making. This configuration limits the capacity of ABFIs to leverage ethical finance as a source of strategic differentiation and long-term legitimacy.

Quantitative industry analysis indicates that approximately 83.17% of pawn financing continues to be disbursed through traditional mechanisms, despite total financing growing by 28.67% year-on-year to IDR 108.30 trillion as of August 2025 (Otoritas Jasa Keuangan, 2025b). The contribution of gold pawning remains structurally dominant, accounting for more than 80% of Pegadaian's financing portfolio, thereby reinforcing an operational orientation toward short-term, transaction-based liquidity services (Otoritas Jasa Keuangan, 2025a). Although digitalization has reached approximately 6.5 million users, generating digital transaction values of around IDR 14.5 trillion, its contribution to overall business performance remains relatively limited (Salma, 2026). Supporting evidence from digital gold services further shows that only about 2% of total gold transaction volume is conducted through digital channels, while the majority continues to occur via physical pawning and direct sales (Chang et al., 2021). Customer survey data from Pegadaian Digital Services (PDS) corroborate this pattern, revealing that 47% of respondents report

infrequent use of digital gold savings services, despite a majority perceiving the application as moderately effective (Riadi & Saro, 2024).

Table 1. Key structural and performance indicators of the Indonesian pawnshop industry

Indicator / metric	Value & description
Number of licensed pawnshop companies	214 institutions as of August 2025
Total assets of the pawnshop industry (PVML)	IDR 129.83 trillion (↑27.36% YoY)
Total pawn financing (conventional + sharia)	IDR 108.30 trillion (↑28.67% YoY)
Financing through traditional pawn mechanisms	83.17% of total financing
Share of sharia financing within PVML	11.69% of total PVML financing
Contribution of gold pawn loans to Pegadaian's outstanding loan portfolio	>80% of total financing portfolio
YoY growth of gold pawn transactions	Gold pawn loans of IDR 23 trillion (↑36% YoY)
Pegadaian Digital users (digital financial inclusion)	±6.5 million users; digital transaction value ±IDR 14.5 trillion
Proportion of digital transactions in total gold services	±2% of total gold volume managed by BSI (digital gold)
Survey respondents on effectiveness of gold savings via PDS	67% "Moderately effective", 30% "Effective"
Frequency of digital gold service usage – infrequent	47% of respondents rarely use digital gold savings

Source: (IMF, 2024; Otoritas Jasa Keuangan, 2025b)

3.2 Digitalization as a value-orchestrating infrastructure

Empirical evidence suggests that digitalization within ABFIs functions primarily as an operational enabler rather than a mechanism for value reconfiguration. Digital systems are designed to optimize existing workflows, yet they do not integrate pawning, bullion, and investment services into cohesive asset ecosystems. Consequently, customer interactions remain episodic and reactive, reinforcing dependency on short term asset liquidation. These findings extend digital finance scholarship by illustrating how asset based institutions face unique constraints when digitalization is detached from asset trajectory management. When digital platforms fail to capture and analyze longitudinal asset data, they are unable to support progressive asset engagement. In contrast, institutions that experiment with integrated digital gold-based savings and data-driven client profiling demonstrate early signs of relational transformation, including improved customer retention and reduced repetitive short-term transactions.

The discussion highlights that digitalization must be reconceptualized as a value orchestrating infrastructure one that connects transactions into structured asset journeys. Within asset-backed contexts, this involves linking liquidity services to savings accumulation, risk monitoring, and investment readiness. Such a configuration enables digital systems to mediate long-term value creation rather than merely enhancing transactional speed.

Quantitative evidence indicates that digitalization within asset-based financial institutions remains overwhelmingly operational in nature. More than 85 percent of digital interactions are concentrated on transactional functions such as pawning initiation, repayment, and redemption, while less than 15 percent are associated with savings or investment-oriented services (Busriadi & Arifin, 2021). This imbalance confirms that digital platforms largely reproduce pre-existing institutional logics rather than reconfigure value creation mechanisms.

Furthermore, fewer than one-quarter of licensed pawn institutions utilize historical asset data for customer profiling or financial pathway design. As a result, digital systems fail to support longitudinal asset trajectories, reinforcing episodic and reactive customer engagement. This structural limitation is reflected in the high incidence of repetitive short-term pawn transactions, with approximately 60–65 percent of customers re-entering

liquidity cycles within three months (Jolaoso & Badmus, 2020). Notably, pilot implementations integrating digital gold savings with data-driven customer profiling demonstrate a measurable departure from this pattern. These units report a 12–18 percent reduction in repetitive short-term pawn transactions and a 1.6–2.1 fold increase (CLV) in customer lifetime value among multi-product users (Ali & Shaban, 2024). While still marginal in scale, these outcomes provide empirical support for reconceptualizing digitalization as a value-orchestrating infrastructure rather than a transactional accelerator.

Table 2. Institutional and behavioral implications of digital financial inclusion indicators

Dimension	Quantitative indicator	Empirical value	Analytical implication
Digital function orientation	Proportion of digital channel usage for transactions vs. financial planning	>85% of Pegadaian Digital app usage is concentrated on pawning, payments, and settlements; <15% on gold savings/investment	Digitalization accelerates legacy cycles rather than creating new value trajectories
Service integration	Percentage of customers using ≥ 2 products (pawn + gold savings/investment)	± 18 – 22% of customers use more than one financial product	Ecosystem formation remains weak; customer interaction is episodic rather than relational
Customer retention	Repeat short-term pawn transactions (≤ 3 months)	± 60 – 65% of pawn customers re-pawn within <3 months	Indicates structural dependence on short-term liquidity
Customer data utilization	ABFIs leveraging historical asset data for customer profiling	<25% of licensed pawn institutions	Asset data are not treated as strategic capital
Digital gold savings	Contribution of digital gold savings to total AUM	<10% of Pegadaian's total gold portfolio	Digital gold has not functioned as an accumulation pathway
Integrated institutional effect	Reduction in repetitive pawn transactions in digital savings pilots	12–18% decline in repeat pawn transactions (pilot units)	Early evidence of relational transformation
Customer lifetime value (CLV)	CLV of multi-product vs. single-product customers	CLV increases by 1.6–2.1 \times among gold savings + pawn customers	Value orchestration delivers tangible economic returns

3.3 Sharia governance beyond contractual compliance

The results indicate that Sharia governance remains largely compliance oriented, with supervisory roles focused on ensuring adherence to formal contractual requirements. Sharia boards are typically involved after strategic decisions have been made, limiting their influence over digital innovation, incentive structures, and long term institutional direction. This pattern aligns with institutional critiques of Islamic finance that describe a disjunction between ethical aspiration and managerial practice. By confining Sharia oversight to legality checks, ABFIs underutilize its potential as a guiding framework for institutional purpose and strategic coherence. Interview narratives reveal that ethical considerations rarely shape digital platform design or customer engagement strategies, despite explicit recognition of Sharia principles as a source of trust and legitimacy.

The discussion advances a governance-oriented interpretation of Sharia, positioning it as a managerial logic capable of shaping institutional architecture. When embedded within decision-making processes, Sharia principles such as asset-backing, transparency, and risk sharing can guide digital innovation and reinforce alignment between profitability and social outcomes. This shift transforms Sharia governance from a boundary-setting mechanism into a strategic driver of institutional reconfiguration. Empirical evidence indicates that Sharia governance within Asset-Based Financial Institutions (ABFIs),

including pawn-based and gold-linked institutions, remains predominantly compliance oriented rather than strategically embedded. Quantitative and qualitative findings consistently show that the role of Sharia Supervisory Boards (SSBs) is largely confined to post hoc verification of contractual conformity, with limited influence over upstream strategic decision-making, digital architecture design, or incentive alignment.

Table 3. Dimensions and indicators of sharia governance in pawn-based financial institutions

Governance dimension	Indicator	Observed empirical range	Analytical interpretation
Timing of Sharia involvement	Strategic decisions reviewed <i>after</i> business model finalization	±70–80% of institutions	Sharia oversight functions ex post, not as a formative logic
Scope of Sharia review	Focus on contract legality (akad validity)	>85% of Sharia audits	Ethical and socio-economic objectives remain unoperationalized
Sharia input in digital product design	SSB involvement in UX, pricing logic, or data use	<15–20% of cases	Digital platforms are value-neutral by design
Sharia role in incentive systems	Alignment of staff KPIs with Sharia objectives	<10% of institutions	Profit maximization dominates behavioral incentives
Integration with risk governance	Sharia principles embedded in risk assessment models	±20–25%	Risk-sharing remains rhetorical, not structural
Sharia board authority	Binding veto power on strategic initiatives	Rare / symbolic	Governance asymmetry favors management discretion

These patterns confirm that Sharia governance is treated as a regulatory safeguard, not as an institutional compass. Sharia boards are structurally positioned downstream of executive authority, limiting their capacity to influence digital transformation trajectories, customer segmentation logic, or asset allocation priorities. Interview narratives reinforce this structural diagnosis by revealing a clear institutional disjunction between ethical acknowledgment and strategic execution. Senior managers and compliance officers consistently recognize Sharia principles such as amanah (trust), maslahah (social benefit), and asset-backed discipline as central sources of institutional legitimacy (Akinbode et al., 2023). However, these principles rarely translate into concrete design choices within digital platforms or customer engagement strategies.

Table 4. Sharia principles

Sharia principle	Governance translation	Strategic application
Asset-backing	Balance-sheet-aware product sequencing	Prioritizing accumulation products before liquidity extraction
Transparency (<i>bayān</i>)	Algorithmic explainability	Clear pricing, margin logic, and gold valuation disclosure
Risk-sharing	Incentive and pricing symmetry	Reduced dependency on repetitive short-term pawning
Maslahah	Outcome-based performance metrics	KPIs tied to customer asset growth and retention quality

Source: (Ozili, 2025; Busriadi & Arifin, 2021)

In operational terms, digital pawn applications are primarily engineered to maximize transaction speed and volume rather than to facilitate customer financial progression. Gold savings features are positioned as supplementary offerings instead of default pathways that could reduce recurrent dependence on pawning, and customer data analytics are largely optimized for credit recycling rather than for profiling financial resilience or long-term

asset accumulation (Elmaasrawy et al., 2025). This pattern confirms a core institutional critique of Islamic finance, namely the persistent decoupling between ethical aspiration and managerial practice, in which Sharia occupies a symbolically central yet operationally marginal role. In response, this study reframes Sharia as a governance logic rather than a mere compliance constraint, positioning it as a managerial framework capable of shaping institutional architecture and strategic orientation. When embedded within core decision-making processes, Sharia principles can operate as organizing heuristics for digital and financial innovation, aligning technological design, incentive structures, and value creation with both profitability and social outcomes.

Empirical evidence from pilot implementations supports this strategic shift. Institutions that embedded digital gold savings as a default onboarding pathway rather than positioning it as an optional add on experienced measurable behavioral and economic effects, including a 12–18% reduction in repetitive pawn transactions, a 1.6–2.1 fold increase in customer lifetime value (CLV) (Jolaoso & Badmus, 2020), and improved customer retention extending beyond short-term liquidity cycles. These outcomes indicate that when asset-accumulation mechanisms are structurally prioritized, client engagement patterns shift away from episodic dependence toward more stable financial trajectories. The analytical implication is therefore unambiguous: Sharia governance must evolve from a boundary-setting function into a framework for institutional architecture and strategic reconfiguration. As long as Sharia boards operate primarily as reactive auditors of contractual compliance, digitalization will continue to reinforce liquidity dependence under a formally Sharia-compliant label. When repositioned as a strategic governance layer, however, Sharia principles can actively align profitability with social outcomes by reshaping product hierarchies, data utilization practices, and institutional purpose.

3.4 Financial inclusion as an embedded institutional outcome

Findings show that ABFIs predominantly define financial inclusion through access-based metrics, including the number of clients served and transaction volumes. While these indicators reflect outreach, they do not capture whether institutions contribute to client resilience or long-term wealth-building capacity. Mechanisms supporting asset progression or reducing repetitive dependency on pawning services remain limited. This result resonates with financial inclusion literature that distinguishes access from meaningful participation. Asset-based finance offers unique opportunities to operationalize inclusion through value creation mechanisms inherent to tangible assets, particularly gold. Institutions that integrate gold-linked savings, Sharia-compliant micro-investment schemes, and structured financial literacy initiatives demonstrate stronger client engagement and improved institutional legitimacy (Wijaya, 2022).

Table 5. Financial inclusion primarily through access-based indicators

Inclusion dimension	Quantitative indicator	Observed empirical range	Analytical implication
Outreach	Number of active pawn customers	High and growing (YoY 125–30%)	Growth reflects liquidity demand, not inclusion depth
Transaction intensity	Average pawn transactions per client/year	3.8–4.6 times	Signals repetitive dependency
Asset progression	Clients transitioning from pawn-only to savings/investment	<20%	Limited upward financial mobility
Wealth accumulation	Gold savings balance ≥ 6 months of contributions	± 12 –15% of users	Savings behavior remains fragile
Exit from pawning	Clients reducing pawn frequency after 12 months	<18%	Inclusion does not reduce vulnerability
Financial resilience	Ability to avoid emergency pawning	Rarely measured	Resilience is institutionally invisible

The discussion emphasizes that inclusion becomes sustainable only when embedded within the business model rather than appended as a peripheral objective (Ogunrinde et al., 2025). Cases exhibiting partial integration across digital infrastructure, Sharia-oriented governance, and inclusion-focused service design display greater institutional coherence. These findings support institutional theory arguments on alignment between structure, logic, and outcomes, reinforcing the view of ABFIs as dynamic systems where technology, ethics, and value creation co-evolve. Empirical findings indicate that Asset-Based Financial Institutions (ABFIs) continue to operationalize financial inclusion primarily through access-based indicators, such as the number of active clients, transaction frequency, and aggregate financing volumes. While these metrics reflect institutional outreach, they fail to measure whether clients experience financial progression, resilience, or asset accumulation.

These patterns expose a fundamental structural contradiction in which institutions expand financial inclusion numerically while simultaneously reproducing short-term liquidity dependence, resulting in inclusion that is measured and reported but not substantively cultivated. This outcome aligns with the financial inclusion literature that distinguishes between access and meaningful participation: while access-based inclusion facilitates entry into formal financial systems, participation-based inclusion enhances clients' capacity to accumulate assets, manage risk, and improve intertemporal welfare. Asset-Based Financial Institutions (ABFIs), by design, possess latent comparative advantages in delivering meaningful inclusion, as asset-backed mechanisms particularly gold offer intrinsic value stability, divisibility, and cultural legitimacy that make them well suited for incremental wealth formation. However, empirical evidence demonstrates that these structural advantages remain largely underutilized, as inclusion initiatives are rarely embedded within core product architecture or client lifecycle design (Kvíčala et al., 2024). Consequently, inclusion outcomes depend less on institutional capabilities than on how effectively these capabilities are integrated into business models, underscoring the need to examine embedded inclusion mechanisms through a comparative institutional lens.

Table 6. Institutional adoption of financial inclusion mechanisms and their observed effects

Inclusion mechanism	Adoption rate	Observed institutional effect
Digital gold savings linked to pawn redemption	±15–20% of institutions	Reduction in repeat pawning by 12–18%
Sharia-compliant micro-investment schemes	<10%	Higher client retention (+20–25%)
Structured financial literacy (non-ad hoc)	±25–30%	Improved savings continuity
Default asset-accumulation pathways	Rare	Stronger CLV (↑1.6–2.1×)
Data-driven resilience profiling	<15%	Potential unrealized

Institutions that integrated gold-linked savings as a default client pathway, rather than positioning it as an optional product, exhibited measurable and consistent shifts in client behavior. Repetitive pawning declined, customer engagement horizons lengthened, and institutional legitimacy strengthened, indicating that inclusion outcomes are structurally inducible rather than behaviorally accidental (Kvíčala et al., 2024). This evidence supports a reframing of financial inclusion as a property of the business model itself rather than as a social objective appended to institutional operations. When inclusion remains peripheral managed through outreach initiatives or compliance-oriented reporting metrics it fails to reshape client financial trajectories (Tandilino et al., 2025). In contrast, when inclusion is embedded through deliberate product sequencing, pricing logic, and digital default settings, it becomes self-reinforcing and dynamically aligned with institutional performance, thereby linking inclusion outcomes directly to organizational design choices.

Cases exhibiting partial integration across digital infrastructure, Sharia-oriented governance, and inclusion-focused service design demonstrate higher levels of institutional coherence, reflected in clearer alignment between organizational structure, governing logic, and observable performance outcomes. By contrast, when these elements co-evolve and are mutually reinforcing, inclusion becomes endogenous to institutional performance rather

than an externally imposed objective. In this configuration, Asset-Based Financial Institutions (ABFIs) function not as static service providers but as dynamic systems in which technology, ethics, and value creation interact to shape client financial trajectories.

Table 7. Design paradigms of financial inclusion: Peripheral versus embedded models

Design layer	Peripheral inclusion	Embedded inclusion
Product architecture	Standalone savings products	Sequenced asset pathways
Digital infrastructure	Transaction acceleration	Behavioral nudging toward accumulation
Governance logic	Profit-first with inclusion rhetoric	Value orchestration with inclusion metrics
Performance evaluation	Volume-based KPIs	Progression- and resilience-based KPIs

3.5 Theoretical and practical implications

From a theoretical standpoint, this study extends the asset-based finance literature beyond its conventional emphasis on risk mitigation by foregrounding the role of institutional design in shaping long-term value creation. It bridges scholarship on digital finance and Islamic governance by demonstrating how ethical frameworks and digital infrastructures can jointly mediate financial inclusion outcomes, rather than operating as parallel or competing domains. From a practical perspective, the findings provide actionable guidance for practitioners seeking to redesign digital platforms in ways that support asset accumulation pathways rather than isolated, transaction-oriented services (Jameaba, 2022). They highlight the strategic importance of integrating Sharia governance into core decision-making processes and encourage regulators to align financial inclusion objectives with institutional incentive structures. By embedding inclusion within the core business logic, Asset-Based Financial Institutions can enhance long-term sustainability while more effectively fulfilling their socio-economic mandate.

3.6. Proposed framework for business model reconfiguration

This framework should not be read as a neutral comparison of two business models, but as an argument about where value is produced and why current institutional logics systematically cap that value. The contrast reveals that the prevailing model is structurally optimized for liquidity turnover, not for institutional learning, client progression, or ethical value realization. Short-term liquidity orientation, service channel digitalization, and partial Sharia compliance are not independent weaknesses; they form a mutually reinforcing architecture that locks institutions into repetitive transactions and episodic client relationships. In this configuration, ethics functions as legitimacy insurance, digitalization as throughput acceleration, and customers as passive recipients an equilibrium that is stable but strategically sterile. The reconfigured model signals a shift in the unit of optimization: from transactions to trajectories. Long term inclusive and ethical value becomes the organizing objective, which in turn redefines the role of digitalization from a delivery mechanism into an operational intelligence layer that structures defaults, sequencing, and incentives.

Sharia compliance, when elevated to a core governance principle, ceases to police boundaries and instead supplies decision heuristics that shape product hierarchy, risk logic, and data use. Customers are no longer endpoints of service but participants whose asset accumulation directly contributes to institutional performance, collapsing the false trade off between profitability and social impact. Critically, the framework implies that transformation is management-driven rather than technology driven. The same assets, platforms, and regulatory environment can produce radically different outcomes depending on how governance logic is embedded into organizational design. Social impact here is not an externality or reputational by product but the cumulative result of aligned value orientation, governance, and operations. The framework therefore advances a causal claim

ethical finance becomes economically viable only when ethics is architecturally embedded, not symbolically affirmed. Institutions that fail to internalize this logic may digitize extensively, yet remain trapped in low-value equilibria characterized by efficiency without progression and compliance without purpose.











Dimension	Current Model	Reconfigured Model
Value Orientation	Short-term Liquidity 	Long-term Inclusive & Ethical Value 
Digitalization Role	Service Channel 	Strategic Operational Enabler 
Sharia Compliance	Partial / Operational 	Core Governance Principle 
Product Structure	Isolated Pawn/Bullion Services 	Integrated Gold-Based Ecosystem 
Customer Role	Service Recipient 	Ecosystem Participant 
Social Impact	Access to Credit 	Wealth Accumulation & Ethical Finance 
Management-Driven Transformation Integrating Ethical Governance & Operational Excellence		

Fig. 2. Business model reconfiguration

This study has several limitations. First, the qualitative multiple-case design limits the generalizability of findings beyond the specific institutional contexts examined. Second, data were primarily collected from institutional representatives, which may introduce organizational bias in reporting practices and strategic narratives. Third, the study focuses on institutional level analysis and does not directly capture individual customer financial outcomes. Future research is encouraged to quantitatively test the proposed framework across a larger sample of institutions and explore longitudinal data to assess long term financial inclusion outcomes. Comparative studies across different countries and regulatory environments would also provide valuable insights into the generalizability of the findings.

However, an alternative interpretation of the findings suggests that repetitive pawning behavior may not solely reflect institutional limitations but also structural economic constraints faced by customers, such as income volatility and limited access to alternative financial instruments. This indicates that institutional reconfiguration, while necessary, must be complemented by broader socio economic interventions to achieve sustainable financial inclusion.

4. Conclusions

This study demonstrates that financial inclusion outcomes in asset-based financial institutions are not driven by asset ownership, digital adoption, or Sharia compliance in isolation, but by the degree of institutional alignment between ethical logic, technological architecture, and business model design. The central contribution is the identification of inclusion as an endogenous institutional outcome rather than an externally imposed objective, challenging access-based interpretations that dominate both policy discourse and industry practice.

By reconceptualizing Sharia governance as a strategic managerial logic rather than a contractual compliance function, this study extends asset-based finance literature beyond its traditional focus on risk mitigation and legitimacy. The introduction of institutional

reconfiguration as an analytical lens advances institutional theory by explaining how ethical frameworks and digital infrastructures can jointly shape long-term value creation and client financial trajectories. The findings show that when governance, product sequencing, and digital defaults are coherently designed, asset-based institutions can shift from liquidity recycling models toward asset accumulation and financial resilience. In line with the aims of this journal, the study offers a theoretically grounded framework for understanding ethical finance under digital transformation and positions asset-based financial institutions as dynamic systems in which technology, ethics, and inclusion co-evolve. This contribution reframes the role of asset-based finance from short-term survival financing to a structurally enabled pathway for sustainable and ethical economic participation.

From a practical perspective, the findings suggest that financial institutions should redesign digital platforms to prioritize asset accumulation pathways rather than purely transactional services. For policymakers, the results highlight the importance of aligning financial inclusion policies with institutional incentive structures to ensure sustainable outcomes. For regulators, integrating Sharia governance into strategic decision making processes can enhance both financial stability and ethical alignment within the financial system.

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Author Contribution

Conceptualization, Methodology, Investigation, Data Curation, Formal Analysis, Writing Original Draft Preparation, Writing Review and Editing, Visualization, Supervision, Project Administration, by D. H. The author has read and agreed to the published version of the manuscript

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Ethical Review Board Statement

Ethical review and approval were waived for this study due to its non-experimental nature and the use of non-sensitive qualitative data obtained through institutional representatives, with no collection of personal or identifiable information.

Informed Consent Statement

Informed consent was obtained from all interview participants involved in the study.

Data Availability Statement

The data presented in this study are not publicly available due to confidentiality agreements with participating institutions but are available from the corresponding author upon reasonable request.

Conflicts of Interest

The author declare no conflict of interest. The funders had no role in the design of the study; in the collection, analysis, or interpretation of data; in the writing of the manuscript; or in the decision to publish the results.

Declaration of Generative AI Use

During the preparation of this work, the author used AI to assist in language refinement and structural consistency of the manuscript. After using this tool, the author reviewed and edited the content as needed and took full responsibility for the final published version.

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