

Rural Banks (BPR/BPRS) in Indonesia: Regulation, Strategy, and the Wet-Market Segment

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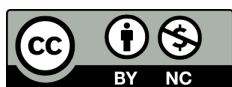
Abstract. Rural Banks (BPR/BPRS) play a critical role in expanding financial inclusion and supporting micro, small, and medium enterprises across Indonesia. Despite their strategic importance, the sector faces substantial structural challenges, including tightening regulatory requirements, uneven digital transformation, increasing credit risk, and persistent weaknesses in governance and operational capacity. These conditions necessitate a comprehensive assessment of the institutional dynamics, regulatory landscape, and strategic readiness of BPR/BPRS in navigating the rapidly changing financial ecosystem. This study aims to analyse: (1) the evolution of regulatory and institutional pressures shaping BPR/BPRS operations; (2) the current conditions of governance, digital capabilities, and risk structures; and (3) the strategic transformation required to strengthen institutional resilience and competitiveness. The study employs a qualitative descriptive approach, utilising documentary analysis of secondary data, including regulatory documents, industry publications, national banking statistics, and international comparative studies. Data were analysed using thematic content analysis, institutional analysis, and comparative strategic analysis. The findings reveal that BPR/BPRS are subject to increasing regulatory pressure, particularly related to capital adequacy, risk management, governance, and reporting integrity. Digitalisation is progressing but remains uneven, constrained by human resource limitations, technological readiness, and misalignment between digital initiatives and business strategy. Prudential indicators highlight vulnerabilities in credit risk and operational efficiency, while the wet-market segment offers growth potential that requires disciplined risk control. The study concludes that BPR/BPRS transformation requires: aligning business strategies with regulatory expectations, strengthening governance and human capital, accelerating capability-based digitalisation, and enhancing proactive risk management. Policy recommendations emphasise developing a realistic digital roadmap, promoting institutional consolidation, and reinforcing risk-based supervision to ensure long-term sector sustainability.

Keywords: rural banks, wet-market, microfinance, digitalization, pricing, prudential benchmarks, risk management, integrity, Indonesia.

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Note: The official terminology for BPR/BPRS changed in 2023/2024. This paper utilises the updated terms while also acknowledging the older names, as they are still widely used in practice.

Сільські банки (BPR/BPRS) в Індонезії: регулювання, стратегія та сегмент «мокрого» ринку

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Анотація. Сільські банки (BPR/BPRS) відіграють вирішальну роль у розширенні фінансової інклюзії та підтримці мікро-, малих та середніх підприємств по всій Індонезії. Незважаючи на їхнє стратегічне значення, сектор стикається зі значними структурними викликами, включаючи посилення регуляторних вимог, нерівномірну цифрову трансформацію, зростання кредитного ризику та постійні недоліки в управлінні та операційній спроможності. Ці умови вимагають комплексної оцінки інституційної динаміки, регуляторного ландшафту та стратегічної готовності BPR/BPRS до орієнтування у швидкозмінній фінансовій екосистемі. Мета статті – проаналізувати еволюцію регуляторного та інституційного тиску, що формує діяльність BPR/BPRS, поточні умови управління, цифрові можливості та структури управління ризиками, а також стратегічну трансформацію, необхідну для зміцнення інституційної стійкості та конкурентоспроможності. Дослідник використовує якісний описовий підхід, використовуючи документальний аналіз вторинних даних, включаючи регуляторні документи, галузеві публікації, національну банківську статистику та міжнародні порівняльні дослідження. Дані були проаналізовані за допомогою тематичного контент-аналізу, інституційного аналізу та порівняльного стратегічного аналізу. Результати дослідження показують, що BPR/BPRS зазнають зростаючого регуляторного тиску, особливо стосовно достатності капіталу, управління ризиками, корпоративного управління та цілісності звітності. Цифровізація прогресує, але залишається нерівномірною, обмеженою потенціалом людських ресурсів, технологічною готовністю та невідповідністю між цифровими ініціативами та бізнес-стратегією. Пруденційні нормативи висвітлюють вразливості в кредитному ризику та операційній ефективності, тоді як сегмент «мокрого» ринку пропонує потенціал зростання, який вимагає дисциплінованого контролю ризиків. Результати дослідження показують, що трансформація BPR/BPRS вимагає: узгодження бізнес-стратегій з регуляторними вимогами, зміцнення управління та людського капіталу, прискорення цифровізації та посилення проактивного управління ризиками. Дослідження наголошує на необхідності розробки реалістичної дорожньої карти цифрової трансформації, сприяння інституційній консолідації та посилення нагляду на основі управління ризиками для забезпечення довгострокової стійкості сектору.

Ключові слова: сільські банки, сегмент «мокрого» ринку, мікрофінансування, цифровізація, ціноутворення, пруденційні нормативи, управління ризиками, цілісність звітності, Індонезія.

INTRODUCTION

Financial inclusion remains a key policy priority in Indonesia, and rural banks (BPR/BPRS) play a crucial role in reaching underserved populations (Wasiaturrehma et al., 2020). With their mandate to serve micro, small, and informal-sector borrowers, they operate in niches that commercial banks often neglect. The renaming of BPR/BPRS in 2023/2024 by the Financial Service Authority (FSA) expanded their perceived mandate from narrow credit provision to broader support of community economies. The FSA Roadmap for 2024–2027 (RP2B) emphasises consolidation, digital transformation, governance strengthening, and integration with regional economic strategies.

Countries such as the Philippines, India, and Bangladesh have developed their own rural banking models, the analysis of which enables us to identify both common and distinctive features (Table 1). These cases highlight the importance of strong capital adequacy,

prudent NPL management, and community-embedded lending practices (Amanda, 2023; Puspitasari et al., 2025). Comparisons show shared challenges but unique adaptations. In the Philippines, BSP-backed rural banks leverage fintech partnerships. India consolidated Regional Rural Banks from 196 to 43, highlighting NPL management. Bangladesh's Grameen Bank pioneered group lending, showcasing social capital as a risk mitigation.

Nowadays, digitalisation profoundly influences all sectors of society, including public management and financial control. The digitisation of tax administration is one of the key aspects of this transformation. The tax authorities have been able to speed up the flow of information, enhance tax accounting, broaden the tax base, and counteract tax evasion due to the digital superhighways. This paper combines regulatory analysis with operational strategies, focusing on how BPR/BPRS can adapt to Indonesia's wet-market segment.

Table 1. Comparative Framework of Rural Banking Models

Country	Regulatory Framework	NPL Management	Digital Adoption	Community Embeddedness
Indonesia (BPR/BPRS)	OJK-regulated, POJK/SEOJK, deposit insurance (LPS)	≤5% cap; supervisory target ≤3%	QRIS, SNAP, API integration with PSPs	Paguyuban networks, markets, village commerce
Philippines (Rural Banks)	BSP-supervised; strict governance, rural bank acts	Strong provisioning rules; CAR-linked controls	Fintech partnerships; mobile banking growth	Strong cooperative and association culture
India (Regional Rural Banks)	RBI regulation; consolidation from 196 → 43 banks	Strengthened post-merger capital and risk controls	Expanding UPI mobile integrations	Regional economic development programs
Bangladesh (Grameen Bank Project)	NGO/MFI hybrid model; community-based micro-finance	Group liability reduces default risk	Basic digital tools; limited tech historically	Village-based solidarity and social capital enforcement

Source: Author's analysis data (2025).

LITERATURE REVIEW

Wasiaturrahma et al. (2020) have highlighted that rural banks (Bank Perkreditan Rakyat, BPR) and Islamic rural banks (Bank Pembiayaan Rakyat Syariah, BPRS) play a key role in financial inclusion in Indonesia, serving segments of the population that lack access to commercial banking services. Amanda's (2023) study empirically examined the spatial competition and stability of rural banks. This study showed that rural banks are vulnerable to competition; their stability increased with a decrease in the stability of neighbouring banks. Puspitasari et al. (2025) emphasise the importance for rural banks to enhance their financial management, particularly in terms of liquidity, credit expansion, and operational efficiency, to achieve long-term sustainability in a post-crisis economic landscape.

A study by Salas et al. (2024) suggests that NPLs are a crucial metric for assessing credit risk, directly impacting the banking system and indicating the likelihood of losses. Thus, the magnitude of NPL plays a vital role in maintaining the stability of a country's banking sector. However, effective customer outreach strategies can help reduce banking risks. For example, the Hatton Nation Bank (HNB) of Sri Lanka invested in a large network of field officers, hiring qualified individuals who not only understand finance but also possess expertise in agriculture. The bank created a network of 250 "barefoot bankers" who work in villages and typically come from the community. They act as field officers and also mentor, guide, and provide technical assistance to clients, encouraging and guiding farmers to become commercially viable. With the barefoot bankers providing technical expertise and guidance close to clients, the bank has reduced its risk (Ledgerwood et al., 2013).

According to Wasiaturrahma et al. (2020), factors that can affect the efficiency of BPR and BPRS include various forms of competition between banks, product

innovations, and other financial institutions that also target microfinance, as well as innovative technologies in the financial world, such as fintech.

Thus, existing research provides a solid foundation for understanding the regulatory environment and general BPR/BPRS strategies in Indonesia. However, there is a gap in research that analyses in detail the specific business models and strategies targeting the wet market segment, its dynamics, challenges, and potential, especially in the context of today's digital transformation and increasing capital requirements.

RESEARCH OBJECTIVE

The objective of this study is to provide a comprehensive analysis of Indonesia's Rural Banks (BPR/BPRS) by examining the regulatory landscape, organisational governance, reporting obligations to OJK, product development limitations, digital transformation, human capital capacity, financial performance indicators, pricing structures, risk management practices, and capital planning, while also conceptualising the operational dynamics of the wet-market segment and evaluating the strategic challenges shaping the future of the sector amid rapid technological, regulatory, and competitive shifts.

RESEARCH METHODOLOGY

This study employs a qualitative descriptive research design based solely on secondary data to analyse the regulatory framework, governance structure, digital transformation, and risk management practices of Rural Banks (BPR/BPRS) in Indonesia. This approach is appropriate because the research aims to interpret institutional and policy dynamics rather than test statistical hypotheses. Accordingly, the study emphasises conceptual depth, regulatory interpretation, and institutional assessment over primary data collection.

The data utilised in this research consist entirely of authoritative secondary sources. These include regulatory documents issued by the Financial Services Authority (OJK), Bank Indonesia (BI), and the Indonesia Deposit Insurance Corporation (LPS); industry publications such as APOLO and SLIK reporting guidelines; national banking statistics; and peer-reviewed academic literature focusing on rural banking, microfinance, governance, digitalisation, and prudential banking standards. Comparative insights from rural banking models in the Philippines, India, and Bangladesh are incorporated to provide a broader contextual understanding and identify relevant international best practices.

Data collection was conducted through a structured documentary analysis process. The key stages included: (1) identifying regulatory texts, industry reports, and academic articles relevant to BPR/BPRS; (2) selecting credible, up-to-date sources aligned with the thematic scope of the study; (3) extracting key concepts, regulatory provisions, institutional indicators, and operational practices; and (4) organising the extracted information into major thematic categories such as regulation, governance, digitalisation, risk management, and wet-market business models.

Data analysis followed a combination of thematic content analysis, institutional analysis, and comparative strategic analysis. Thematic analysis was employed to identify patterns and conceptual linkages across documents. Institutional analysis assessed how regulatory pressures influence organisational behaviour and strategic responses. A comparative analysis positioned BPR/BPRS within the broader microfinance landscape by benchmarking it against international cases. The unit of analysis is the institutional configuration and performance of BPR/BPRS rather than individual actors. Source triangulation and consistency checks against primary regulatory documents strengthened the methodological rigour of the study.

RESULTS

Regulatory Landscape

The renaming of BPR and BPRS in 2023/2024 from 'Perkreditan' and 'Pembiayaan' to *Perekonomian Rakyat* (in the Indonesian context) reflects an expansion in institutional purpose. While product restrictions remain (no current accounts, foreign exchange, or derivatives), the new terminology underscores their mandate as engines of local economic empowerment.

The Roadmap for the Development and Strengthening of the Rural Bank and Sharia Rural Bank Industry 2024-2027 (abbreviated as RP2B) provides four key directions:

- improving structure and competitiveness through consolidation,
- mandating digital adoption,
- strengthening regional roles in MSME development, and
- enhancing regulation and supervision (FSA Indonesia, 2024).

POJK 23/2024 requires higher initial capital, fit-and-proper tests, and the establishment of governance committees. This raises professional standards while

pressuring small BPRs to consolidate their operations. Reporting (Online Reporting Application OJK – APOLO) enforces the timely submission of prudential ratios, RBB, and ESG disclosures. Compliance requires IT-enabled reporting. Credit Registry (SLIK) mandates borrower data submission, which reduces the risk of over-indebtedness, but poses challenges to banks with incomplete records. Risk and IT standards mandate information security, DRP, vendor risk management, and cyber resilience (FSA Indonesia, 2023). POJK 6/2023 enforces fair treatment, disclosure, and ethical collection. Deposit Insurance (LPS) sets guaranteed deposit ceilings; exceeding them voids insurance protection (IDIC, 2024).

Organisational Structure and Governance

Governance operates on a two-tier system: Commissioners (oversight) and Directors (management). Committees for Audit, Risk, IT, and Remuneration are mandated (FSA Indonesia, 2023). This approach strengthens accountability. Stakeholder partnerships with MSMEs and governments embed BPRs in local economies (Puspitasari et al., 2025).

The governance model of BPR/BPRS must be clearly defined to ensure effective oversight and management. The Board of Commissioners functions as the supervisory body, responsible for approving strategic policies, risk appetite, and monitoring management performance. The Board of Directors is tasked with day-to-day management, implementing policies, and ensuring compliance with FSA regulations. This separation of roles preserves checks and balances.

FSA Indonesia requires BPR/BPRS to establish governance committees proportionate to their size and complexity. Key committees include:

- Audit Committee, to ensure independent oversight of financial reporting, internal control systems, and external audit coordination;
- Risk Committee, overseas credit, liquidity, operational, and IT risk frameworks;
- IT Committee, governs core banking investments, cyber-security, and digital strategy; and
- Remuneration and Nomination Committee, to ensure fair compensation and merit-based recruitment of Directors and Commissioners.

Business units (frontline lending, deposits, customer service) report to the respective director of operations or business. Risk and compliance functions report directly to the President Director, with dotted-line accountability to the Audit and Risk Committees of the Board of Commissioners, ensuring independence from business pressures. Internal audit reports functionally to the Board of Commissioners (via the Audit Committee) and administratively to the President Director, safeguarding autonomy. IT and security report to the Director of Operations, with oversight from the IT Committee and regular reporting to the Board. Finance and accounting reports to the Finance Director, ensuring accurate reporting to the FSA, IDIC, and the Directorate General of Taxes (DGT) ("DJP" in the Indonesian context).

Stakeholder engagement is integral. BPR/BPRS governance must include structured dialogues with MSMEs, cooperatives, and local governments to ensure products and services address community needs. In practice, some BPRs assign Commissioners to oversee stakeholder engagement, reinforcing their public accountability role.

BPR/BPRS products are specifically designed for cash-based microbusinesses, particularly wet market traders. Staple traders require frequent, small working capital loans, while dry goods sellers benefit from inventory financing. Food service operators demand daily

input financing, and non-food service providers usually require modest but less frequent loans. Risk management relies on peer references, behavioural scoring, and QRIS transaction data. To meet these needs, BPR/BPRS design short-term loans with daily or weekly repayment schedules, while BPRS offer sharia contracts such as murabahah and ijarah. Deposits are structured in tiers within LPS ceilings, and collections combine digital reminders with field models. These segmentation strategies ensure products are aligned with the cash cycles of different trader types (Table 2).

Table 2. Wet Market Segmentation

Segment	Characteristics	Loan Needs	Risk Profile	Repayment Pattern
Staples	Perishable, daily turnover	Small, frequent working capital	High volatility	Daily
Dry Goods	Non-perishable, larger inventory	Inventory financing	Moderate Risk	Weekly/Monthly
Food Services	Frequent raw input	Short-cycle loans	Medium volatility	Daily
Services	Tools/rent, less frequent	Modest credit	Low Risk	Monthly

Source: Author’s analysis data (2025).

Reporting to FSA Indonesia

APOLO system ensures transparency through monthly prudential submissions, RBB, and sustainability reports. Integration with SLIK provides comprehensive borrower histories, supporting risk-based lending. Public disclosures include governance, ratios, and sustainability initiatives.

BPR/BPRS must comply with structured reporting schedules defined by FSA Indonesia. Key obligations include:

- Monthly APOLO Submissions: prudential ratios (CAR, NPL, BOPO, LDR, ROA), liquidity positions, and capital adequacy must be reported no later than the 15th of the following month.
- Quarterly Reports; more detailed breakdowns of risk exposures, credit quality, ESG-related financing, and business developments.
- Annual Reports; comprehensive disclosures, including governance reports, financial statements audited by external auditors, and sustainability initiatives.
- RBB (Bank Business Plan); submitted annually before the start of the year, outlining growth plans, product innovations, risk appetite, and capital projections.
- SLIK Integration; ongoing borrower-level reporting, updated in real time or at a minimum monthly, to detect over-indebtedness and cross-borrowing risks.

Failure to comply with reporting timelines can trigger regulatory sanctions, ranging from warning letters to fines, restrictions on business expansion, or, in severe cases, license suspension. Delays in SLIK submissions may result in gaps in borrower credit histories, undermining risk-based lending and potentially triggering FSA scrutiny. Persistent failures may lead to FSA classifying the institution as having governance weaknesses, which impacts its soundness rating.

To ensure compliance, internal management must:

- Establish a Regulatory Reporting Unit within Finance/Compliance.
- Implement maker-checker procedures so reports are validated before submission.
- Use the core banking system to automate data extraction, reconciliation, and upload to APOLO.
- Maintain a compliance calendar with deadlines and responsible officers clearly assigned.
- Conduct monthly internal reviews of prudential ratios and resolve discrepancies before submission.
- Develop contingency protocols (e.g., manual reporting templates) if IT systems fail.

The FSA requires banks to demonstrate not only compliance with reporting requirements, but also robust internal controls. Therefore, BPR/BPRS must maintain:

- Documentation; working papers and reconciliations must back all submissions.
- Board Oversight; commissioners must review key reports and sign off where required.
- Corrective Action Plans; if reporting deficiencies are identified (e.g., by FSA Audit), management must file remediation plans within defined timelines (typically 30–60 days).

In 2023, a BPR in Central Java faced delays in APOLO submissions due to core banking migration. FSA issued a warning and required a remediation plan. The bank established a dedicated reporting unit, automated reconciliations, and engaged external consultants. Within three months, compliance was restored, and the bank’s governance score improved. This case shows how proactive management action can prevent sanctions and restore regulatory confidence.

Product Development

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BPR/BPRS products are specifically designed for cash-based microbusinesses, particularly those in the wet market sector. Staple traders require frequent, small working capital loans, while dry goods sellers benefit from inventory financing. Food service operators demand daily input financing, and non-food service providers usually require modest but less frequent loans. Risk management relies on peer references, behavioural

scoring, and QRIS transaction data. To meet these needs, BPR/BPRS design short-term loans with daily or weekly repayment schedules, while BPRS offer sharia contracts such as murabahah and ijarah. Deposits are structured in tiers within LPS ceilings, and collections combine digital reminders with field models. These segmentation strategies ensure products are aligned with the cash cycles of different trader types (Table 3).

Table 3. Prudential Benchmarks

Ratio	FSA Min/Max	Target (Best Practice)	Example (Healthy BRP)	Example (Vulnerable BRP)
CAR	≥ 12%	15–18%	18%	12%
NPL	≤ 5%	≤ 3%	2%	7%
BOPO	≤ 90%	≤ 80%	78%	95%
ROA	≥ 1%	≥ 2%	2.3%	0.5%
LDR	75–85%	75–85%	80%	92%

Source: Author's analysis data (2025).

Staple traders typically borrow small amounts (IDR 5–20 million) for perishable goods, such as vegetables, meat, or fish. Loans are disbursed in the early morning and repaid daily from evening sales. Example: A poultry vendor borrows IDR 10 million for weekly stock, repaying in daily instalments of IDR 400,000. Dry goods sellers borrow larger amounts (IDR 20–50 million) for non-perishable inventory. Loan tenor may extend to 3–6 months, with weekly repayment schedules. Example: A grocery stall uses a three-month loan to bulk-purchase rice and sugar, which is repaid from the weekly turnover. Food service operators require short-cycle financing (IDR 2–10 million) for daily purchases of raw materials and supplies. A street food stall may take a two-week loan, repaid daily via QRIS receipts. Service providers require modest financing (IDR 2–15 million) for tools, rent, or small renovations, often with monthly repayment.

Product development begins with a market survey, assessing trader cash cycles, repayment preferences, and risk factors. BPR/BPRS then design product terms, including loan repayment period, instalment frequency, collateral requirements, and pricing. Internal committees (Product Committee, Risk Management Committee) review proposals for compliance with risk appetite and prudential limits. Once approved internally, new products must be submitted to FSA for registration and approval. First, the bank must include products in the annual Bank Business Plan (RBB) submitted to FSA. The FSA evaluates alignment with regulations (e.g., no current account products, deposits within LPS ceilings, sharia compliance for BPRS). Some BPRs conduct pilot launches under FSA monitoring to validate assumptions. Upon FSA's non-objection, the product can be launched, with ongoing reporting through APOLO and supervisory reviews.

To mitigate default risk, BPR/BPRS use behavioural scoring, peer references, QRIS data, and community validation. For BPRS, sharia contracts, such as murabahah (cost-plus financing for inventory) and ijarah

(leasing for tools/equipment), are structured to match traders' cash flows. Collections utilise a hybrid model, combining digital reminders (SMS, WhatsApp, and QRIS auto-deductions) with in-person visits by field officers, aligned with market hours.

Deposit schemes encourage savings while remaining within LPS guarantees. The bank offers tiered interest rates for daily, weekly, or monthly savings plans. For example, a trader depositing IDR 100,000 daily via QRIS can build a monthly savings of IDR 3 million, fully insured by LPS.

In 2023, a BPR in East Java launched a Market Flex Loan, offering credit lines of IDR 5–30 million for market traders, with repayment deducted from QRIS receipts. Approval was based on stall tenure (minimum 1 year), supplier references, and daily sales verification. The product was first included in the RBB, reviewed by FSA, and launched after a 3-month pilot. Results showed 95% on-time repayment, a reduction in NPL to 2%, and increased deposits from participating traders.

Thus, key success factors consist of:

- Aligning repayment schedules with cash cycles;
- Using digital data (QRIS, e-wallet receipts) for scoring and monitoring;
- Ensuring FSA-compliant processes through RBB submissions and APOLO reporting;
- Embedding sharia compliance for BPRS through contracts aligned with DSN-MUI fatwas;
- Maintaining transparency and fairness in pricing and terms to build long-term trust.

Because BPR/BPRS primarily operate in rural regencies across Indonesia, cultural literacy is as critical as financial literacy. Understanding local traditions, kinship ties, and religious practices allows banks to design products that resonate with customers' daily lives. For example, in Bali, community-based decision-making (*banjar*) may influence borrower credibility, while in Java, longstanding market associations (*paguyuban*) often serve as informal social collateral.

Embedding these local practices into credit analysis, product design, and collection strategies enhances acceptance, mitigates conflict, and fosters stronger repayment discipline. Implementation should include training staff in cultural sensitivity and local languages, as well as involving community leaders or religious figures in outreach and product education. For BPRS, aligning with local *adat* and *syariah* practices strengthens legitimacy and customer trust. This approach ensures that financial services feel accessible

and respectful of community identity, enhancing both outreach and sustainability.

IT and Core Banking

Core systems include Customer Information Files (CIF), loans, deposits, GL, and provisioning aligned with PSAK 71. APIs enable interoperability with PSPs and fintech. Security protocols include encryption, SOC, and DRP. Figure 1 illustrates a modular architecture that supports both compliance and innovation.

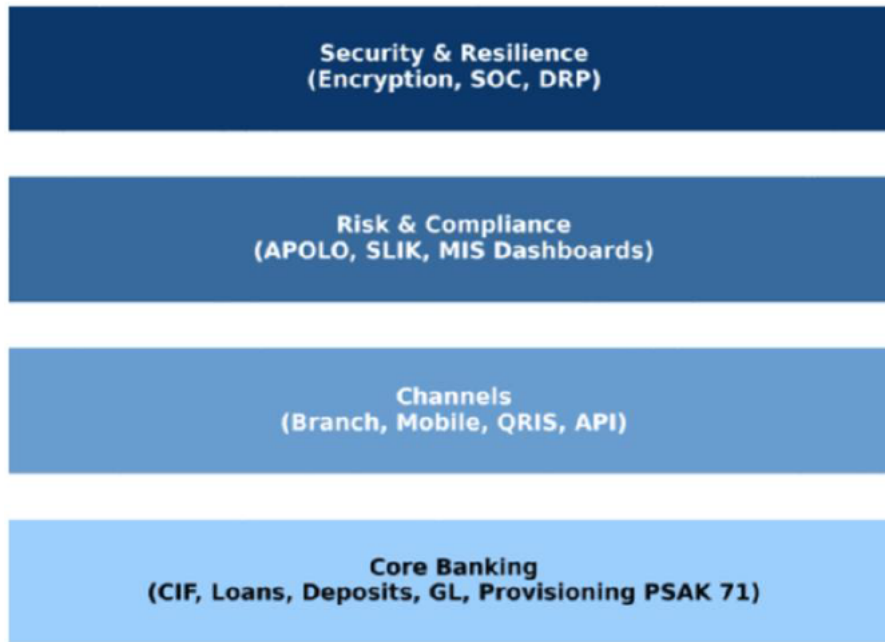


Figure 1. Digital Architecture Schema

Source: Author’s analysis data (2025).

The core banking platform must, at a minimum, cover Customer Information Files (CIF), loan and deposit modules, general ledger integration, accruals, and provisioning engines compliant with PSAK 71. Automated feeds to APOLO and SLIK ensure regulatory alignment. Loan origination, disbursement, collection, and restructuring processes should be fully integrated into the system, with comprehensive audit trails for transparency.

IT should be governed under a formal framework that includes a board-approved IT Strategy aligned with business plans, a clear segregation of duties between IT operations, security, and audit, risk-based controls over access, change management, and vendor oversight, and compliance with the FSA’s IT risk management standards. Regular IT Steering Committee meetings should link business needs with IT capabilities, while disaster recovery and cyber resilience testing must be integrated into the governance cycle.

Effective IT systems improve efficiency by automating transactions, reconciling ledgers, and enabling real-time reporting. They enhance effectiveness by reducing human error, improving credit decisioning through digital scorecards, and providing management dashboards. Customer service benefits from 24/7 transaction processing, seamless QRIS/SNAP integration,

and faster loan approvals. Strong MIS capabilities allow BPR/BPRS to monitor prudential ratios daily and provide accurate, timely reporting to FSA.

A bank may acquire core banking systems through vendor solutions tailored for rural banks, Consortium platforms shared by multiple banks, or cloud-based modular cores, which offer scalability and API integration. The acquisition process should include needs assessment, vendor due diligence, pilot testing, and phased rollout. FSA approval may be required for material IT changes. A necessary step is a cost-benefit analysis to ensure affordability without compromising compliance.

Ongoing maintenance involves patching, upgrades, user support, and regular penetration testing. Annual system audits validate controls and data integrity. Development priorities include integration with fintech for digital services, adoption of AI-based decision support, and compliance updates for new regulations (e.g., enhanced ESG reporting). Vendor service-level agreements (SLAs) should define uptime, response times, and escalation procedures. Internally, BPR/BPRS must maintain IT competence by training staff and hiring specialists where needed.

As an example from practice, BPR, adopting a cloud-based core in 2024, integrated QRIS transactions into its

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loan management system. Daily sales data fed into borrower profiles, enabling dynamic credit scoring. This reduced loan approval time from five days to one day and improved NPL monitoring. Governance was strengthened through a joint IT Steering Committee with oversight from Commissioners, ensuring alignment with strategy and FSA requirements. As a result, both operational efficiency and customer satisfaction increased measurably.

Human Capital and Integrity

Integrity underpins long-term sustainability. Case studies in Table 4 demonstrate that insider lending and NPL concealment have led to sanctions, whereas transparency has preserved trust. HR must ensure competence and ethics, with training on compliance, IT, and consumer protection. Additionally, integrity programs, such as Integrity Week, foster accountability.

Table 4. Integrity and NPL Case Studies

Case	Integrity Failure	Target (Best Practice)	Example (Healthy BRP)
Insider Lending	Loans to related parties concealed	FSA sanctions, reputational damage, management intervention	Importance of transparency independent oversight, and strict RPT controls
NPL Concealment	Manipulation of loan books: hiding defaults	Loans external audit findings, forced management changes	Necessity of independent audit whistleblowing systems, and honest reporting
Integrity Program	Transparent disclosure and culture building	Improved trust and governance culture	Value of continuous ethics training and integrity reinforcement programs

Source: Author's analysis data (2025).

Recruitment should be competency-based, transparent, and aligned with FSA's fit-and-proper requirements. BPR/BPRS must adopt structured interviews, background checks (including SLIK and criminal history), and psychometric testing for integrity. Job descriptions should clearly define responsibilities and ethical expectations. External references from previous employers and community leaders can provide additional assurance of character. A diverse hiring panel reduces bias and ensures fairness.

Once recruited, staff must undergo regular training in compliance, risk management, IT systems, and customer service. Continuous professional education, supported by FSA and Perbarindo training programs, ensures employees remain up-to-date. Upskilling in digital literacy and financial technology is critical as BPR/BPRS increasingly adopt QRIS, SNAP, and AI-driven analytics. Coaching and mentoring systems should be institutionalised to transfer tacit knowledge from senior to junior staff.

Sustainable BPR/BPRS require cultures grounded in integrity, accountability, and service excellence. Elements include: a clear code of conduct endorsed by top leadership, whistleblowing channels with protection, recognition systems for ethical behaviour, and regular town-hall meetings to reinforce values. Rotating staff in sensitive roles reduces fraud risks. Embedding ESG values, such as gender equity,

community orientation, and environmental responsibility, further strengthens the culture.

Internationally, the Grameen Bank in Bangladesh institutionalised a culture of social accountability and transparency, resulting in high repayment rates and trust. In the Philippines, rural banks under the BSP framework emphasise continuous training and ethical governance, leading to more stable institutions. In Indonesia, leading BPRs in Java have introduced Integrity Weeks, employee rotation policies, and digital compliance dashboards to cultivate transparency and performance.

Research confirms that integrity-driven cultures correlate with lower NPLs, higher customer trust, and stronger financial sustainability (Wasiaturrahma et al., 2020; Amanda, 2023). Thus, banks with transparent HR processes, well-defined codes of conduct, and a substantial investment in human capital demonstrate superior resilience and a competitive advantage.

To institutionalise these practices, BPR/BPRS can develop an Integrity Pack, a structured set of policies and programs that embeds ethical values into daily operations. Key elements of such a pack include: a Code of Conduct signed by all staff, mandatory integrity pledges at recruitment, regular ethics training, conflict-of-interest disclosures, whistleblowing mechanisms with protection, and annual integrity reporting to the Board.

A sample HR Policy Framework can be presented as a structured cycle (Figure 2).

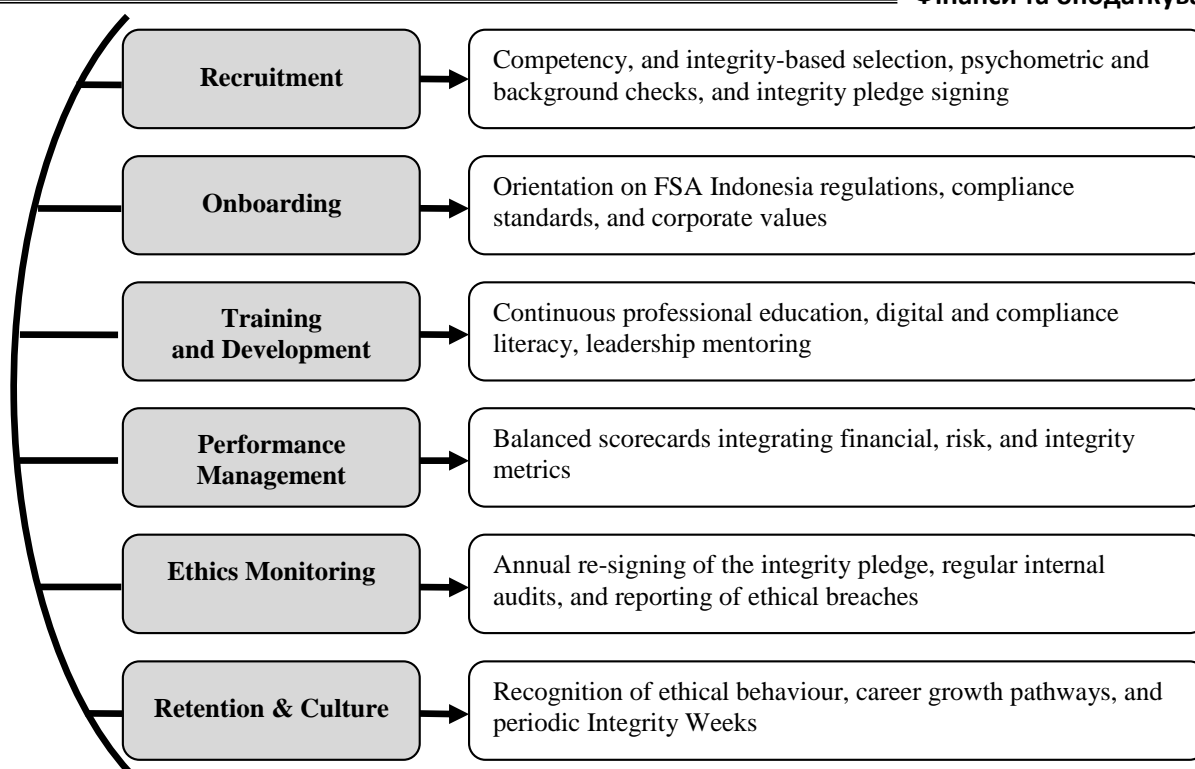


Figure 2. Typical HR Policy Framework

Source: compiled by the author (2025).

In practice, HR management models can look different. For example, the Grameen Bank (Bangladesh) integrates social and ethical accountability into its HR cycle, reinforcing high repayment discipline. In the Philippines, BSP mandates governance training for rural bank directors and managers, embedding compliance into human capital development. In Indonesia, select BPRs in Central Java utilise “Integrity Packs,” where staff must

reconfirm their ethics commitments annually, fostering a culture of transparency and shared responsibility.

Financial Ratios and Prudential Standards

Table 5 summarises the prudential benchmarks that ensure resilience. NPL governance (Table 6) emphasises classification, provisioning, and independent remedial units.

Table 5. Prudential Benchmarks

Ratio	FSA Min/Max	Target (Best Practice)	Example (Healthy BRP)	Example (Vulnerable BRP)
CAR	≥ 12%	15–18%	18%	12%
NPL	≤ 5%	≤ 3%	2%	7%
BOPO	≤ 90%	≤ 80%	78%	95%
ROA	≥ 1%	≥ 2%	2.3%	0.5%
LDR	75–85%	75–85%	80%	92%

Source: Author’s analysis data (2025).

Table 6. NPL Policy Framework

Classification	Days Past Due	Provisioning (PSAK 71)	Governance Actions
Stage 1 – Performing	0 – 30 days	12-month ECL	Standard monitoring
Stage 2 – Underperforming	31 – 90 days	Lifetime ECL	Early restructuring enhanced monitoring
Stage 3 – Default	> 90 days	Lifetime ECL (100%)	Independent remedial unit, possible write

Source: Author’s analysis data (2025).

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The FSA requires the Capital Adequacy Ratio (CAR) value to be a minimum of 12%, but sustainable banks typically target 15–18% to buffer against shocks. In practice, many rural banks maintain CAR in the 18–25% range, reflecting conservative lending and capital conservation. Non-Performing Loans (NPL) have a regulatory ceiling of 5%, but international best practice and FSA Indonesia guidance suggest aiming for below 3%. Well-managed BPRs have achieved NPLs of under 2.5% through effective monitoring. In contrast, BPR with weak governance have seen NPLs climb to 8–10%, triggering corrective action from FSA. The ratio of Operating Costs to Operating Income (BOPO) should be a maximum of 90%, but sustainable benchmarks are closer to 75–80%. Efficient BPRs operate at BOPO ~78%, while struggling ones exceed 95%, eroding profitability. Return on Assets (ROA) should be a minimum of 1%, but viable BPRs achieve 2–3%. For example, in 2023, leading BPRs in West Java posted ROA above 2.5% due to efficient operations and low credit losses. For the Loan-to-Deposit Ratio (LDR), the optimal is 75–85%. Ratios below 70% imply underutilised liquidity; above 90% indicate funding stress. Balanced LDR ensures liquidity for withdrawals while maximising earning assets.

To be considered sustainable, BPR/BPRS must treat these ratios holistically:

- Maintaining CAR above 15% while keeping NPLs $\leq 3\%$ protects solvency.

- Keeping BOPO $\leq 80\%$ ensures profitability even with modest margins.
- ROA $\geq 2\%$ demonstrates efficient use of assets.
- LDR between 75–85% balances growth and liquidity safety.

For example, a BPR with CAR of 18%, NPL of 2%, BOPO of 78%, ROA of 2.3%, and LDR of 80% is in a strong, sustainable position. Conversely, a BPR with a CAR of 12%, NPL of 7%, BOPO of 95%, ROA of 0.5%, and LDR of 92% is vulnerable and likely to face supervisory intervention.

Balancing ratios requires integrated management. NPL control feeds into lower provisioning, which supports higher ROA and reduces BOPO pressure. Adequate capital buffers (CAR) provide resilience against NPL shocks. Sustainable lending policies ensure LDR stays within optimal bands. Ultimately, BPR/BPRS sustainability depends on consistent monitoring, disciplined cost control, and conservative capital planning, aligning with FSA's soundness assessment framework (POJK 3/2022).

Pricing Framework

Risk-based loan pricing must balance the cost of funds, credit risk, operating expenses, and profit margin (Table 7). LPS ceilings anchor deposit pricing. Transparency requires disclosure of adequate APR/EIR.

Table 7. Pricing Illustration

Components	Tier A (Low Risk)	Tier C (High Risk)
Cost of Funds	5%	5%
Operating Costs	2%	2%
Expected Credit Loss	1%	4%
Capital Charge	2%	2%
Target Profit	3%	3%
Final Rate	13%	16%

Source: Author's analysis data (2025).

A pricing strategy must start with a careful assessment of the cost of funds, which in BPR/BPRS typically comes from deposits within LPS ceilings. The margin above this cost must cover expected credit losses (based on NPL history and provisioning requirements under PSAK 71), operating expenses, and a risk premium that reflects both borrower and portfolio-level risk.

Pricing should reflect risk differentiation. Borrowers with stronger repayment capacity, longer stall tenure, or digital transaction histories (Tier A) can be priced lower, while higher-risk borrowers (Tier C) should be charged higher spreads. However, pricing must remain within inclusive finance objectives and LPS limits. Importantly, risk-based pricing also absorbs the equity cushion; higher-risk portfolios require higher capital allocation, so loan rates must reflect both the cost of capital and credit risk. For example, if stress tests project elevated default

risk in traders of perishable goods, BPR/BPRS should raise rates or reduce exposure to preserve equity adequacy.

Practical implementation consists of:

- Cost-Plus Formula: Loan Rate = Cost of Funds + Operating Costs + Expected Credit Losses + Profit Margin.
- Risk-Adjusted Spreads; banks apply incremental spreads based on credit scoring tiers (e.g., +2–3% for Tier C vs Tier A).
- Capital-Linked Pricing incorporates a capital charge by allocating required equity per loan (e.g., 15% CAR \times RWA). This ensures pricing covers not only direct risk but also the cost of maintaining regulatory capital.

- Deposit Pricing must remain under LPS caps to ensure insurability; excess deposit pricing creates reputational and liquidity risks.

- Sharia Compliance (BPRS) in Islamic contracts, pricing is embedded in murabahah margin or profit-sharing ratios. Risk adjustments can be reflected in markup or mudarabah distribution ratios.

For BPR/BPRS, pricing ensures sustainable margins, protects equity, and enhances long-term viability. For customers, transparent, fair pricing builds trust and reduces over-indebtedness. For regulators: alignment with FSA and LPS rules ensures systemic stability.

As data analytics improve, BPR/BPRS can adopt more sophisticated risk-based pricing models that utilise machine learning on QRIS/POS data, enabling granular pricing spreads. Scenario-based pricing could also be tied to macro conditions (e.g., inflation, commodity cycles). Expert literature on MSME lending confirms that differentiated, transparent pricing enhances portfolio quality while sustaining outreach (Ledgerwood et al., 2013; Amanda, 2023).

Worked Example

Assume the following inputs for a BPR:

- Cost of funds (deposits): 5% (within LPS ceilings).

- Operating expenses allocation: 2%.

- Expected credit losses (ECL): 1% for Tier A borrowers, 4% for Tier C borrowers.

- Capital charge: 2% (assuming 15% CAR and equity allocation on RWA).

- Target profit margin: 3%.

Tier A borrower (Prime community anchor): Loan Rate = 5% + 2% + 1% + 2% + 3% = 13% per annum. This rate reflects lower risk, efficient underwriting, and long stall tenure.

Tier C borrower (Vulnerable entrant): Loan Rate = 5% + 2% + 4% + 2% + 3% = 16% per annum. This higher rate reflects elevated default risk, thinner capital buffers, and higher monitoring costs.

The difference between 13% and 16% pricing reflects risk-adjusted spreads while still maintaining inclusivity and fairness. Transparency requires disclosure of the effective annual rate (APR/EIR) so that customers understand repayment obligations.

Digitalisation Strategy

Digital-first adoption integrates QRIS and SNAP systems (BI, 2024). Fintech partnerships extend reach and efficiency. Figure 1 illustrates a modular architecture that enables embedded finance. International evidence supports digitalisation as a profitability driver (Amanda, 2023). For wet-market users, digitalisation enables QRIS-based daily transactions that also serve as repayment records, thereby improving credit scoring accuracy. Merchants benefit from simplified payment acceptance, reduced cash-handling risks, and eligibility for tailored credit offers. For BPR/BPRS, this provides verifiable data to strengthen underwriting, reduce fraud, and lower NPL ratios. Beyond wet markets, extending digital solutions to broader MSMEs (small shops, service providers,

regional traders) expands the customer base. Benefits include greater financial literacy, access to bundled services (micro-insurance, savings plans), and faster loan disbursements. For BPR/BPRS, this diversification mitigates concentration risks and unlocks fee-based revenue.

In return, customers gain transparency, speed, and security in transactions; BPR/BPRS gain efficiency in monitoring, compliance reporting, and cross-selling. Automation reduces manual errors, strengthens regulatory submissions (e.g., APOLO, SLIK), and enhances internal decision-making through dashboards. For example, in 2024, a pilot project in a traditional Jakarta wet market integrated QRIS acceptance with microloan repayments. Merchants used QRIS for daily sales, and repayment instalments were auto-deducted from digital receipts. Traders reported reduced stress in handling collections, while the partnering BPR recorded a 30% drop in delinquency rates. The initiative also increased merchant savings balances, as digital payments accumulated transparently in their accounts. This illustrates how digital ecosystems can simultaneously improve borrower discipline and bank asset quality.

Over the next 3–5 years, technology will need to advance toward:

- Real-time credit scoring leveraging QRIS and e-wallet data.

- AI-driven decision support for loan approvals, fraud detection, and NPL early warnings.

- End-to-end digital onboarding with e-KYC, biometrics, and automated document verification.

- Predictive analytics for cash flow forecasting and risk-adjusted loan sizing.

- Cloud-based core banking with modular APIs to scale operations and integrate new services seamlessly.

These advancements will not only increase daily operational efficiency but also enhance strategic decision-making. Empirical studies have demonstrated that digital adoption by rural banks enhances productivity, reduces transaction costs, and increases profitability while deepening financial inclusion (Wasiaturrahma et al., 2020; Amanda, 2023). For BPR/BPRS, embracing these technologies is not optional but essential to remain competitive and sustainable.

Taxation

BPR/BPRS are subject to various tax obligations under Indonesian law. Corporate income tax is applied at a standard rate of 22% (PwC, 2023). Banks must calculate annual taxable income by recognising interest income, fee-based income, and other operating revenues, net of deductible expenses. Loan interest received is recognised as taxable income, while deposit interest paid to customers is generally deductible, subject to thin capitalisation rules. All income and expenses must be reported through the bank's statutory financial statements and submitted in the annual tax return (current tax) via the Directorate General of Taxes of Indonesia (DJP) e-filing system. Direct contact with tax offices is generally unnecessary if compliance is completed

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through electronic systems, although clarifications and audits may require liaison.

Withholding Taxes are significant for BPR/BPRS. Interest paid to customers is subject to a 20% final withholding tax (reduced to 10% for certain savings bonds or for residents under specific rules). BPR/BPRS act as withholding agents, deducting tax at source and remitting it monthly to the DJP of Indonesia, supported by electronic slips (SSP), and reported in the monthly Income Tax Return 23/26.

Core banking intermediation services (deposit taking, lending) are VAT-exempt. However, ancillary services (e.g., safe deposit box rental, card issuance fees, or non-core advisory services) may be subject to VAT at 11%. BPR/BPRS must maintain clear segregation in their chart of accounts and report VAT via periodic tax return.

BPR/BPRS must withhold Income Tax 21 (personal income tax) from staff salaries, remit monthly, and issue annual Form 1721-A1. Employer contributions to BPJS Ketenagakerjaan and BPJS Kesehatan are also mandatory and reported monthly.

Additionally, payments to vendors or service providers may be subject to Income Tax 23 (e.g., for professional services, rent, royalties) at rates of 2% or 15%, depending on the category. Cross-border transactions would involve Income Tax 26 (20% unless treaty relief applies). Land and Building Tax (PBB) is payable annually for branch premises, based on local government assessments. Regional taxes may apply depending on location.

All taxes are managed through the DJP online system. Banks must reconcile accounting records with tax returns, supported by monthly periodic tax returns (for Income Tax Article 21, 23, and VAT) and annual corporate tax returns. Internal SOPs should define cut-offs, maker-checker approval for remittances, and reconciliation processes. Larger BPR/BPRS typically appoint tax compliance staff or outsource to licensed tax consultants. FSA regulations (e.g., APOLO reporting) require consistency between the financial statements submitted to the FSA and those filed with the DJP Indonesia.

Empirical work on Indonesian banks highlights that effective tax compliance enhances reputational credibility and reduces regulatory friction (Oktavia et al., 2017). Studies on microfinance taxation in Asia emphasise the importance of aligning tax policy with financial inclusion goals (Ledgerwood et al., 2013). For BPR/BPRS, robust tax governance, including accurate withholding, timely filing, and integrated accounting systems, is both a compliance necessity and a trust-building mechanism.

Risk Management and Capital Planning

This subsection provides an overview of how risk management operates in BPR/BPRS, the connection between policies and capital requirements, and how implementation aligns with OJK guidelines.

BPR/BPRS risk management is anchored by:

- POJK 13/POJK.03/2015 on Risk Management for BPR (minimum pillars and governance);

- SEOJK 1/SEOJK.03/2019 (implementation standards, documentation, and KRIs);
- POJK 3/POJK.03/2022 on Bank Health Assessment for BPR/BPRS (risk-based soundness via risk profile, governance, earnings, and capital);
- SEOJK 28/SEOJK.03/2021 (Bank Business Plan/RBB—business plan with risk appetite, stress testing, and capital projection);
- POJK 23/2024 (APOLO reporting and financial transparency); and (vi) SEOJK 2/SEOJK.03/2025 (KPM and Minimum Core Capital calculation for BPR).

These set the expectations for Board oversight, risk policies and limits, measurement/monitoring systems, and internal control.

The Board of Commissioners approves an annual Risk Appetite Statement (RAS) and monitors adherence, while the Board of Directors operationalises limits.

A practical RAS for BPR/BPRS includes:

- Credit; portfolio NPL (gross/net) limits, early delinquency (7-DPD/30-DPD) triggers, single-obligor/related-party caps, sector and geographic concentration limits, restructuring thresholds, and write-off policies.
- Liquidity; cash buffer (e.g., ≥ 10 –15 days operating cash), LDR bands (target 75–85%), maturity mismatch ladders with maximum cumulative negative gaps, and Contingency Funding Plan (CFP) triggers (e.g., daily outflow $\geq 5\%$ of core deposits).
- Operational/ICT; maximum acceptable outage hours per month, fraud loss limits per 1,000 accounts, vendor risk ratings, cybersecurity incident thresholds, and RTO/RPO targets for DRP.
- Interest-Rate Risk in the Banking Book (IRRBB); repricing gap and duration limits; economic value of equity (EVE) change caps under ± 200 bp shocks. The Three Lines of Defence apply: the business owns risk, Risk & Compliance sets policy/monitoring, and Internal Audit tests effectiveness.

Policies must translate the 5C philosophy into objective rules, including minimum stall tenure, verified daily sales (via QRIS/POS or triangulation), supplier references, allowable collateral types, and maximum ticket sizes by borrower tier.

- Underwriting; use segmented scorecards (staples/dry goods/food services/services), income normalisation, and instalment-to-income caps (≤ 30 –35%). Require SLIK checks for indebtedness and cross-borrowing.
- Provisioning/ECL (PSAK 71); stage 1 (12-month ECL) for performing exposures; stage 2 (lifetime ECL) upon significant increase in credit risk (SICR) (e.g., >30 -DPD or adverse EWD); stage 3 (default/NPL) at >90 -DPD. For thin-file micro-borrowers, apply management overlays and qualitative indicators (e.g., stall relocation, supply shock).
- Concentration; set caps per market, commodity group, and supplier cluster to avoid correlated defaults (e.g., max 15% of portfolio in a single wet-market or

commodity). Define significant exposure thresholds relative to capital.

BPR/BPRS should maintain a conservative liquidity position, given deposit-funded models and limited wholesale access. In accordance with this task, the bank is carrying out the following activities: makes measurements based on daily cash flow projections, maturity gap tables, and survival horizon estimates under stressed outflows, using early-warning KRIs (e.g., surge in deposit withdrawals, QRIS settlement delays); creates buffers – cash and bank placements proportionate to stress outcomes by align time-deposit mix with loan repricing to avoid cliff effects; develop a Contingency Funding Plan – predefined playbooks for mild/moderate/severe stress (e.g., pricing adjustments within LPS caps, temporary asset slowdown, shareholder liquidity lines) – and define governance (who convenes CFP, what triggers escalation) and communication protocols to depositors.

Operational exposures arise from cash handling, agent operations, and vendor dependencies. Policies must cover segregation of duties, dual control thresholds, maker-checker controls for loan origination and write-offs, vendor due diligence, and cybersecurity (including access control, patching cadence, and anomaly detection). BCP/DRP must be tested at least annually with RTO/RPO targets aligned to market trading hours; field collections should continue under fallback modes (offline receipts, batch updates). Incident classification and loss data collection support capital planning and insurance decisions.

Given fixed-rate microloans and time deposits, repricing gaps can compress margins when deposit costs rise. Perform gap and duration analysis, stress $\pm 200/400$ bp rate shocks, and set transfer-pricing floors to protect NIM. Use shorter loan tenors or step-up rates to mitigate risk.

FSA Indonesia expects forward-looking stress testing to be integrated into the RBB and risk profile. The bank must implement quarterly single-factor (e.g., 20% deposit outflow, 150 bp rate rise) and semi-annual multi-factor (commodity price shocks, market renovation, regional downturn) scenarios, as well as reverse stress tests (conditions leading to a breach of KPMM/NPL thresholds). Stress test outputs must align with management actions (pricing, growth slowdown, expense controls) and capital planning.

Capital is measured via the KPMM (Capital/RWA) ratio, as per SEOJK 2/SEOJK.03/2025. Historically, BPR must maintain a KPMM of at least 12% and a core capital ratio of 8% versus RWA.

The linkage works as follows:

- Risk-Weighted Assets (RWA) reflect credit, operational, and market/IRRBB surrogates using standardised risk weights and operational charges.
- Pillar-2 add-ons (internal capital) are set where risk is under-captured (e.g., high borrower granularity, cash-intensive ops, vendor risk).
- Capital buffers involve setting internal targets above the 12% floor (e.g., 15–18%) based on stress outcomes, portfolio mix, and growth plans. If stress tests

indicate that KPMM is dipping toward the floor within 12 months, trigger capital conservation measures (dividend restraint, RWA optimisation) or capital raising (retained earnings, rights issue, strategic investor).

- Portfolio Strategy Tie-in shows that high-risk segments (perishables, new markets) require higher risk-based pricing and/or lower exposure limits unless offset by more substantial collateral or guarantees.

In practice, the bank implements OJK guidance by adopting appropriate policies, setting limits, conducting stress testing, internal audits, and engaging in supervisory dialogue.

Empirical work on Indonesian BPR/BPRS indicates that capital adequacy and cost efficiency are central to resilience, while NPL and BOPO pressure profitability (Wasiaturrahma et al., 2020). Cross-country evidence shows that regulatory credit policies, capital reserves, and intermediation costs are key determinants of systemic NPLs (Salas et al., 2024). Studies on regional banks and MSME lending in Indonesia associate better performance with disciplined underwriting, digital data usage (QRIS/POS), and governance enhancements. Practitioners emphasise DSCR floors, ITI caps, and progressive limits as effective micro-credit controls.

In summary, BPR/BPRS should treat capital as the outcome of disciplined risk management. A robust RAF, segmented underwriting, conservative liquidity buffers, and recurring stress testing directly translate into KPMM sufficiency, enabling sustainable growth under the OJK's supervisory framework.

Wet-Market Playbook

Wet-market traders can be segmented by business type: staples (rice, vegetables, poultry, fish), dry goods (groceries, clothing, household items), food services (stalls, ready-to-eat vendors), and non-food services (barbers, repair services, logistics). Across most traditional markets, merchants' loan quality reflects high cash velocity but thin margins and exposure to daily shocks (weather, supply volatility, stall relocation). Short-term working-capital loans (3–9 months) with frequent instalments dominate. Historically, performance is strongest in dry goods (lower perishability and more predictable cycles) and most volatile in fresh staples (high perishability and price swings), with food services falling in between, depending on location and seasonality.

5C Philosophy (Character, Capacity, Capital, Collateral, Conditions) explains how traders actually comply. Although data on community embeddedness, stall tenure, vendor reputation, and supplier references are highly predictive, many traders perform well in these areas despite having limited formal documentation. Daily gross sales and net margins are variable; capacity improves with QRIS/POS data. For cash-only sellers, triangulate using stall fees, supplier invoices, and inventory turnover. Capital bases are modest; working capital often turns multiple times per month. Validate via stock counts and purchase frequency rather than formal statements. Collateral is usually limited to chattel (such as equipment or inventory) or personal guarantees; land/house titles are rare. At the same time, BPRS use

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sharia-compliant collateral/guarantees. Conditions include seasonal demand (paydays, holidays, and school terms), input price shocks (fuel and logistics), and market renovation risk, affecting tenor and buffer design.

It is advisable to preserve the spirit of 5C but operationalise it with behavioural and transactional data (QRIS, e-wallet settlements, supplier invoices), structured field scoring, and community references.

In the end, we get three practical borrower risk bands:

Tier A (Prime community anchors): long stall tenure (> 3 years), stable QRIS/POS turnover, diversified suppliers, strong references. Strategy: higher ticket, longer tenor (6-12 months), rate discounts, cross-sell deposits/insurance.

Tier B (Near-prime growers): 12-36 months tenure, partial digital traces, moderate seasonality. Strategy: medium ticket with step-up limits after three clean cycles; require QRIS onboarding.

Tier C (Vulnerable entrants): < 12 months tenure, cash-only, perishable focus, single supplier. Strategy: small ticket, very short tenor (3-6 months), tighter monitoring, mandatory savings lockbox, and supplier-pay-later structures.

A cash-flow-based approach with standardised worksheets involves:

- Daily Gross Sales (DGS) from QRIS/POS; if absent, triangulate with stall size, footfall bands, and invoice frequency.

- Gross Margin (%) by segment (e.g., staples 8-12%, dry goods 15-25%, food services 12-18% -adjust per local survey).

- Operating Expenses (rent/stall fees, labour, utilities, transport) to derive Net Operating Cash Flow (NOCF).

- Working Capital Cycle (days inventory outstanding + days receivable – days payable). Target loan tenor \leq cycle \times 2 to avoid rollover risk.

- Instalment-to-Income (ITI) Cap: keep ITI \leq 30-35% of stabilised NOCF for daily/weekly loans; Debt Service Coverage (DSCR) \geq 1.25x.

- Buffering for Seasonality: apply a 10-20% haircut to DGS in lean months; stress test for 2-3 adverse weeks.

- Limit by Stockability: for perishables, cap principal to \leq 60-70% of average weekly inventory; for dry goods, \leq 80-90% with verified turns.

A documentary basis for calculating and evaluating these indicators can be established using various data sources, such as available QRIS/POS, signed supplier statements, and photos of receipts. This may also include a market authority letter on stall tenure and references from neighbours or vendors. SLIK checks are mandatory to detect over-indebtedness and cross-borrowing. In addition, BPRS must comply with sharia structuring.

Collections and early warning tools involve automated reminders and field visits synchronised to market hours, tracking 7-DPD and 30-DPD as lead indicators; escalating from coaching to restructuring protocols.

Expert practice emphasises cash-flow-centric lending with strict instalment caps, community verification, and progressive limits. Empirical studies on Indonesian rural

banks show that higher CAR and disciplined cost control improve performance, while NPLs and BOPO erode profitability. The adoption of digital payments (e.g., QRIS) enhances data quality for underwriting and monitoring purposes.

Findings

The research findings indicate that the BPR/BPRS sector is undergoing a period of heightened regulatory scrutiny and institutional adjustment. Regulatory authorities, primarily OJK, BI, and LPS, have introduced progressively stricter requirements concerning capital adequacy, governance structures, risk management practices, reporting integrity, and digital compliance. These regulatory developments are designed to strengthen the resilience and stability of rural banking institutions; however, they also create significant compliance burdens for smaller or less mature BPR/BPRS. Variations in institutional capacity result in differentiated levels of readiness, where larger and better-governed institutions demonstrate stronger adaptability, while smaller entities face higher compliance risks and structural limitations. This regulatory dynamic highlights the increasing importance of institutional alignment and internal capability development in maintaining long-term operational viability.

Digitalisation emerges as a central theme in the findings, yet its implementation across the BPR/BPRS landscape remains uneven. Some institutions have successfully upgraded core banking systems, adopted digital payment standards, and integrated supervisory reporting platforms. However, many continue to struggle with technological limitations, insufficient human resource competencies, and fragmented digital strategies. The lack of alignment between digital initiatives and business processes often results in superficial, inefficient digital adoption that fails to produce meaningful improvements in service delivery or risk monitoring. These findings highlight that digital transformation in rural banks is not solely a matter of adopting technology but also requires coherent strategic planning, organisational restructuring, and the strengthening of digital governance mechanisms.

Prudential indicators further reveal structural vulnerabilities. Credit risk remains the most persistent challenge, driven by borrower segments dominated by informal traders, wet-market operators, and small-scale MSMEs, which have higher exposure to cash flow volatility. The prevalence of manual processes, outdated information systems, and elevated cost structures relative to revenue capacity also limits operational efficiency. Risk diversification remains low, and the monitoring of loan performance is often hindered by inadequate risk analytics. These prudential weaknesses suggest the need for more sophisticated credit appraisal processes, data-driven monitoring systems, and coordinated recovery frameworks, especially in institutions with high exposure to volatile market segments.

A comparative analysis with international rural banking models, particularly in the Philippines, India, and Bangladesh, demonstrates that BPR/BPRS lags in several

critical areas, including system modernisation, digital integration, and risk-based supervisory practices. In these countries, successful rural banking ecosystems have benefited from standardised governance frameworks, technology-enabled risk scoring, and centralised support systems that enhance efficiency and financial inclusion. The gaps identified in the Indonesian context suggest that without substantial modernisation, BPR/BPRS may find it increasingly difficult to compete with more agile financial institutions, including fintechs and digital banks that are rapidly expanding their MSME lending capabilities.

CONCLUSIONS

BPR/BPRS serve as inclusive financial intermediaries and remain central to Indonesia's financial inclusion agenda. To sustain their developmental role, they must not only comply with prudential standards, embrace digitalisation, manage NPLs, and embed integrity, but also pursue clear milestones and adaptive strategies.

Maintaining existence in an economy still struggling with post-pandemic recovery, inflationary pressures, and uneven MSME growth requires disciplined risk management and customer-centric innovation. BPR/BPRS must implement robust stress testing and capital planning to ensure resilience under volatile conditions. They also need to diversify their revenue sources beyond traditional interest income, for example, by offering micro-insurance, fee-based services, and digital payment facilitation. Continuous investment in IT infrastructure and human capital will be crucial for absorbing future shocks and maintaining trust.

Adapting to challenges means anticipating competition from both fintech and larger banks, while leveraging their unique community presence and regulatory credibility. The decline of poorly managed fintech lenders underscores that sustainable growth depends on strong governance, ethical practices, and transparent customer engagement. BPR/BPRS can attract disillusioned borrowers by demonstrating superior compliance, fairness in pricing, and community support.

Looking further ahead, milestones toward 2030 could include:

- establishing standardised digital scorecards for MSME borrowers nationwide;
- embedding climate and sustainability criteria into lending;
- participating in regional financial ecosystems in partnership with local governments and cooperatives.

By aligning with these trajectories, BPR/BPRS can adapt to macroeconomic uncertainty, maintain their existence, and continue to serve as pillars of inclusive finance in Indonesia.

Recommendations

The competitiveness of BPR/BPRS will increasingly depend on four interrelated dimensions: consolidation, digital embeddedness, ESG integration, and human capital development. Consolidation is being driven by FSA's Indonesia of RP2B 2024-2027, which encourages mergers among smaller entities to create more resilient banks with stronger capital bases and operational efficiency. Digital embeddedness remains crucial, with BPR/BPRS expected to integrate QRIS, SNAP, and other financial technologies into their operations, enabling data-driven lending and enhanced customer experiences. However, the landscape has shifted: while fintech firms initially posed a competitive threat, in practice, many Indonesian fintech lenders have recently struggled. Market evidence indicates that several fintech players experienced declining growth due to mismanagement, unsustainable lending models, aggressive but ineffective collection practices, and inadequate KYC/AML procedures. These weaknesses led to high default rates, reputational risks, and, in some cases, regulatory intervention. Rather than being fully displaced by fintech, BPR/BPRS now have an opportunity to position themselves as more trusted, regulated, and community-embedded financial institutions.

This comparative advantage lies in stronger governance structures, mandatory reporting, and deposit insurance, all of which are absent in many fintech models. By strengthening their own digital capabilities while upholding integrity and compliance, BPR/BPRS can attract customers disillusioned with fintech platforms. Moreover, embedding ESG financing (such as sustainable agriculture loans or energy-efficient cold-chain facilities) aligns their growth with long-term development goals. Talent development, particularly in data literacy and digital compliance, will be the final pillar ensuring resilience. In sum, while fintech competition has weakened due to missteps, BPR/BPRS can capitalise on their regulated credibility, local presence, and ability to design products tailored to microbusinesses. Their survival and growth will depend on striking the right balance between regulatory compliance and inclusive innovation.

4 References

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