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Digital Readiness for Artificial Intelligence Adoption in Islamic Cooperatives Financial Reporting

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Abstract

This study examines the extent to which Artificial Intelligence (AI) has been adopted in the financial reporting process of Islamic savings, loan and financing cooperatives (KSPPS) in Pati Regency, its implications for reporting transparency and accuracy, and barriers to future adoption. A descriptive qualitative field study was conducted at four KSPPS registered with PBMT Pati: KSPPS Yaumi MAS, KSPPS Harapan Umat (Harum), KSPPS Artha Bahana Syariah (ABS), and KSPPS BMT Berkah Al-Fath Mulia. Ten key informants, consisting of managers, finance staff, and IT staff with more than five years of service, were selected through purposive and snowball sampling. Data were collected through semi-structured interviews, direct observation of reporting applications (Imf@, Artos System, and Baraty), and documentation of monthly reports, daily closing records, and internal supervision documents. Data validity was ensured through source, technique, and time triangulation and analysed using the interactive model of Miles and Huberman. AI implementation was distinguished from digitalisation by defining AI as systems with learning, predictive, or autonomous decision-making capabilities. Digital readiness was assessed based on real-time data availability, algorithmic capability, and computing power. Findings show that none of the four cooperatives has implemented AI in the strict sense, as their systems remain rule-based. Three cooperatives demonstrate high digital readiness through online, real-time, integrated systems, while one has moderate readiness due to partially manual operations. Digitalisation improves reporting timeliness, accessibility, and accuracy, although typographical errors, duplicate inputs, and manual reconciliation remain. Key barriers include unstable connectivity, weak input validation, cybersecurity risks, limited human resources, and the absence of regulatory guidance. Thus, KSPPS remain at a pre-adoption stage, requiring investment, capacity building, and regulatory support to achieve transparent, accurate, and sharia-accountable reporting.

Keywords: *Artificial Intelligence; Digital Readiness; KSPPS; Transparency; Accuracy.*

Introduction

The industrial revolution 4.0 is an era of transformation marked by the use of cutting-edge technology, such as big data, the Internet of Things (IoT), blockchain and Artificial Intelligence (AI), in various aspects of human and industrial life (Lubis, 2023). AI offers the ability to process data quickly, accurately and efficiently, so that it becomes a potential solution for improving the quality of financial reporting(Yusuf et al., 2023). Reported benefits include the automation of routine recording tasks, the analysis of large

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transaction volumes, and the real-time detection of anomalies that would be difficult to identify manually (Kokina et al., 2025; Kureljusic & Karger, 2024). Empirical studies also indicate that AI-based tools are associated with improvements in the qualitative characteristics of accounting information, particularly reliability and timeliness (Abdullah & Almaqtari, 2024; Awwad et al., 2024).

These benefits, however, are neither automatic nor universal. The use of AI in financial reporting is still in its early stages in many jurisdictions, and organisations have not fully exploited its potential because of limited technology infrastructure, a shortage of expert human resources and a lack of specific regulatory guidance. The literature also records concerns rather than settled consequences: concerns about the displacement of routine finance roles, about ethical risks such as algorithmic bias, and about vulnerability to cyberattacks. (Durongkadej et al., 2024) report that, in a study of five firms, banks and financial services firms experiencing AI-related incidents exhibited a higher bankruptcy risk and lower operating cash flow; this is an association observed in a small sample rather than evidence that AI adoption causes institutional failure, and it should be read as a warning about governance of AI systems rather than about AI as such.

Two concepts are central to this study and therefore require operational definition. Transparency of financial reporting is understood here as the degree to which financial information is complete, timely and accessible to those entitled to it, and is presented in a form that users can understand. It is assessed through four indicators: the timeliness of report availability (including the ability to complete daily closing on schedule), the accessibility of information to management, supervisors and members, the completeness of disclosure, and the comprehensibility of the information presented. Accuracy is understood as the degree to which recorded figures faithfully represent the underlying transactions and are free from material error. It is assessed through four indicators: the existence of input validation, the ability of the system to reconcile records with physical cash, the frequency and type of recording errors, and the existence of an audit trail that allows a recorded entry to be traced back to its origin and verified. These indicators guide both data collection and the interpretation of findings.

The sharia dimension gives these two concepts a further layer of meaning. In Islamic financial institutions, transparency and accuracy are not merely technical qualities of a report but expressions of amanah (trustworthiness) and accountability to members and, ultimately, to God. Financial reporting in KSPPS is governed by sharia accounting standards issued by the Indonesian Institute of Accountants, in particular PSAK 101 on the presentation of sharia financial statements and PSAK 107 on ijarah, by fatwas of the National Sharia Board (DSN-MUI), and by Ministry of Cooperatives and SMEs regulations on sharia savings, loan and financing activities. Compliance is supervised internally by the Sharia Supervisory Board (DPS) and by the internal supervisory unit (SPI). Accurate and open recording is therefore also the mechanism through which the absence of riba, gharar and tadlis in a transaction can be demonstrated and verified. Recent evidence from Islamic cooperatives shows that digital reporting systems can strengthen this accountability by allowing members to access financing information in real time, although disclosure of costs and risks often remains incomplete (Nasiroh et al., 2025). Comparable findings on the

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digitalisation of Islamic social finance point in the same direction: technology widens access and improves efficiency, but the benefit depends on literacy and institutional capacity (Qudah et al., 2023; Sahrani et al., 2024).

Cooperatives are pillars of the national economy and are engaged in various fields, including the financial sector. Islamic financial services cooperatives serve the small and medium enterprises (SMEs) sector and do not handle large business sectors, and the convenience they provide makes them a main alternative for financing in the community. Over time, however, cooperatives have experienced various challenges that have resulted in bankruptcy, caused among others by fraud and errors in management (Soegiarto & Mulyani, 2022). Management may also be tempted to present financial statements in an artificially favourable condition (Kureljusic & Karger, 2024). Competent human resources and adequate tools are therefore required, and technology has become one of the instruments most widely used by cooperatives to improve the quality of the financial reports they produce.

Pati Regency was chosen as the research setting for three reasons. First, it has one of the densest concentrations of BMT-based KSPPS in the eastern part of Central Java, coordinated through the PBMT association, so that a set of cooperatives operating under a single regulatory and market environment can be compared. Second, the cooperatives in this regency differ sharply in scale and in system maturity, ranging from institutions with around twenty branches and fully online systems to institutions with two remaining branches and partly manual field operations; this internal variation makes the regency well suited to a study whose objective is to compare levels of readiness rather than to describe a single case. Third, cooperatives in the regency have encountered concrete operational incidents affecting their reporting systems, including interruptions of connectivity and a malware attack, which make the questions of accuracy and data governance empirically salient rather than hypothetical.

Studies on AI in accounting have concentrated on public companies, banks and audit firms, while Islamic microfinance institutions, which operate with limited capital, small IT teams and a distinctive sharia accountability framework, remain largely unexamined. Existing studies on KSPPS, in turn, address sharia compliance and transparency without examining the technological base on which reporting rests (Nasiroh et al., 2025). This study addresses that gap by asking three specific questions: (1) to what extent has AI actually been adopted in the financial reporting systems of KSPPS in Pati Regency, and what level of digital readiness for AI adoption do these systems display; (2) how do the systems currently in use affect the transparency and accuracy of financial reporting, measured through the indicators defined above; and (3) what barriers and opportunities shape the prospects for AI adoption in these institutions. The findings are intended to assist cooperative managers, regulators and academics in distinguishing realistic near-term gains from aspirational claims about AI in Islamic microfinance.

Literature Review

This section is organised into four themes: the concept of AI and its distinction from accounting digitalisation; the quality of financial reporting in terms of transparency

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and accuracy; evidence on AI in accounting and financial reporting; and AI adoption in Islamic financial institutions, followed by the theoretical framework adopted in this study.

Artificial Intelligence and Its Distinction from Accounting Digitalisation

Artificial Intelligence is a branch of computer science that aims to develop systems and machines able to perform tasks normally requiring human intelligence (Eriana & Zein, 2023). (Seethamraju & Hecimovic, 2020) define AI as a computing technology that exhibits a form of human intelligence and encompasses several interrelated technologies, including data mining, machine learning, natural language processing, speech recognition, image recognition and sentiment analysis. (Zemánková, 2019) defines AI as the ability of a system to interpret external data correctly, learn from that data, and use the knowledge gained to achieve specific goals through flexible adaptation. The distinguishing feature in both definitions is learning: an AI system improves its performance from data rather than executing a fixed set of instructions.

Historically, the term was coined at the 1956 Dartmouth conference, where research proceeded from the assumption that features of learning and intelligence could be described precisely enough for machines to simulate them (Santoso, 2023; Zemánková, 2019). The subsequent development of AI has been driven by three enabling conditions that are also used analytically in this study: the availability of large and current data, the presence of algorithms capable of learning from that data, and computing power sufficient to run them (Wamba-Taguimdje et al., 2020).

Because the term AI is used loosely in practice, a conceptual distinction is necessary before any organisation can be classified as an adopter. Digitisation converts records from paper to electronic form; automation executes predefined rules without human intervention; big data and cloud technology provide storage and connectivity; only systems that learn from data, generate predictions or make decisions without explicit rules constitute AI in the strict sense. Online, real-time transaction processing and networked storage are therefore prerequisites for AI rather than instances of it. Table 1 summarises this distinction, which underpins the classification applied in the results section.

Table 1. Conceptual Distinction between Digitalisation, Automation and Artificial Intelligence in Financial Reporting

Category	Defining characteristic	Example in cooperative reporting	AI in the strict sense?
Digitisation	Conversion of manual records into electronic form and networked storage	Replacement of manual ledgers and spreadsheets by an accounting application	No
Automation (rule-based)	Execution of predefined rules and formulas without human intervention	Automatic posting, balance checks, auto-save and scheduled backup	No
Real-time integration and big data infrastructure	Continuous synchronisation of transaction data across branches and devices	Online systems accessible from head	No; an enabling condition for AI

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		office and from mobile devices in the field	
Descriptive analytics and reporting	Aggregation and presentation of recorded data	Periodic statements, ratio calculations and dashboards	No
Artificial Intelligence (ML, DL, NLP)	Learning from data, prediction, classification and decision-making without explicit rules	Predictive financing-risk scoring, anomaly detection trained on historical data, natural language chatbots	Yes

Source: Developed by the authors from Zemánková (2019), Seethamraju and Hecimovic (2020) and Wamba-Taguimdje et al. (2020).

Transparency and Accuracy as Dimensions of Financial Reporting Quality

Financial statements present information about the financial position, performance and changes in the financial position of an entity, and are useful to management, members, creditors and regulators in economic decision-making (Weygandt et al., 2015). The quality of financial statements refers to the reliability, relevance and correctness of the information presented, and quality reporting is the main key to building stakeholder trust (Anggadini et al., 2021). Qualitative characteristics that a report must satisfy, namely relevance, reliability, understandability and comparability, function as normative measures that accounting information must realise in order to meet its objectives (Juniardi, 2024; Tampubolon & Hasibuan, 2019). Several factors affect this quality, including human resources, the accounting system, accounting standards, internal control and information technology.

Within these characteristics, transparency and accuracy occupy distinct positions. Transparency is closely related to timeliness and understandability: information that is complete and correct but delivered late, or delivered in a form that members cannot interpret, does not support decision-making. Accuracy underpins reliability: a report is reliable only if it is free from material error and faithfully represents the transactions it summarises. In an operational setting, transparency is observable in the punctuality of daily closing and periodic reporting, in the ease with which management, supervisors and members can obtain the information they need, and in the completeness and clarity of disclosure. Accuracy is observable in the presence of input validation, in the ability to reconcile records with physical cash, in the frequency of recording errors, and in the speed with which irregularities are detected. These are the indicators used in this study.

Evidence on Artificial Intelligence in Accounting and Financial Reporting

The literature reports several channels through which AI may affect reporting quality. Yusuf et al. (2023) identify automation of routine tasks, big data analysis, prediction and forecasting, strategic insight and early fraud detection as the principal contributions of AI to accounting, while noting that the variability of results indicates that organisational context plays an important role in successful integration. Resalia Resalia et al., 2024 report gains in efficiency and accuracy, faster completion of accounting tasks, identification of trends that might otherwise be missed, and improved security of stored financial data,

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subject to regular system updates against cyber threats. Rina Septiriana & Darma, (2024) find that AI embedded in audit analytics software can help prevent and detect financial statement fraud and can analyse large volumes of data faster than traditional methods. Kokina et al., (2025) show that AI creates opportunities for auditing but also raises challenges related to transparency and explainability, AI bias, data privacy, resilience and reliability, practitioners' fear of over-dependence, and the need for guidance.

Two qualifications are important for the present study. First, most of this evidence comes from large firms, banks and audit practices with dedicated data teams; the transferability of these results to microfinance institutions with a handful of IT staff cannot be assumed. Second, several studies describe potential applications rather than measured outcomes, and the distinction between the two is frequently blurred in the literature. This study therefore treats claims about AI benefits as propositions to be tested against field evidence rather than as established properties of the technology.

Artificial Intelligence and Reporting in Islamic Financial Institutions

Research specific to Islamic financial institutions is comparatively thin but growing. Rahman et al. (2023) examine the adoption of AI in banking services and find that perceived usefulness, ease of use and organisational readiness shape adoption intentions, with infrastructure acting as a binding constraint in emerging markets. Qudah et al. (2023) map the intersection of Islamic finance and financial technology and identify governance and financial inclusion as dominant research trends, indicating that technology in this sector is evaluated not only by efficiency but also by its contribution to ethical objectives. Mawardi et al. (2024) show that the contribution of technological development to Islamic financial development becomes visible only where institutional quality is high, which suggests that technology and governance are complements rather than substitutes.

At the level of cooperatives, Nasiroh et al. (2025) find that KSPPS Artha Bahana Syariah applies PSAK 107 in recording ijarah-based financing and that its application-based digital system supports the efficiency and accessibility of reports, while disclosure of costs and risks to members remains incomplete. Sahrani et al., (2024) similarly report that the digitalisation of Islamic social finance improves transparency and reach but is limited by gaps in public understanding. Taken together, these studies suggest that in Islamic microfinance the binding constraint on reporting quality lies less in the sophistication of the technology than in data governance, disclosure practice and human capacity. They also indicate that technology can support, but cannot by itself guarantee, sharia compliance, which ultimately rests on contract structure and on supervision by the DPS.

Theoretical Framework: *Technology-Organisation-Environment* and Technological Readiness

This study adopts the *Technology-Organisation-Environment* (TOE) framework as its analytical lens. TOE explains organisational adoption of an innovation through three contexts: the technological context, comprising the technologies available to and already in use by the organisation; the organisational context, comprising size, structure, resources, human capital and managerial support; and the environmental context, comprising

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regulation, competitive pressure, market demand and the availability of external support. The framework has become dominant in studies of AI adoption by small and medium-sized organisations precisely because it accommodates resource constraints and external dependence, which individual-level models such as the Technology Acceptance Model do not capture (Badghish & Soomro, 2024).

TOE is appropriate here for two reasons. First, the unit of analysis is the cooperative rather than the individual accountant. Second, the field evidence in this study concerns exactly the three TOE contexts: system capability and connectivity (technological), IT staffing, training, capital and managerial decisions on system procurement (organisational), and OJK and Ministry of Cooperatives regulation, DSN-MUI fatwas, DPS supervision and vendor dependence (environmental). Because none of the cooperatives studied has yet adopted AI, the framework is applied in its pre-adoption form: rather than explaining adoption outcomes, it is used to assess readiness, understood as the degree to which the three contexts are conducive to future adoption. Readiness in the technological context is operationalised through the three enabling conditions identified earlier, namely real-time data availability, algorithmic capability and computing power

Research Methodology

Research Design

This research is a field study with a descriptive qualitative approach. The approach was chosen because the objective is to understand how reporting is actually carried out inside the cooperatives, what the systems in use can and cannot do, and how the people who operate them experience their limitations, none of which can be captured by measurement of predefined variables alone.

Research Setting and Its Selection

The study was conducted at four KSPPS in Pati Regency, Central Java: KSPPS Yaumi MAS, KSPPS Harapan Umat (Harum), KSPPS Artha Bahana Syariah (ABS) and KSPPS BMT Berkah Al-Fath Mulia. All four are registered with the PBMT association in Pati and operate under the same regulatory environment, which allows differences between them to be attributed to institutional rather than jurisdictional factors. The four also differ substantially in scale and system maturity: Yaumi MAS operates around twenty branches, ABS operates nineteen branches and one central operational office, Harum operates on a smaller regional scale, and Berkah Al-Fath Mulia currently operates two branches. This deliberate variation makes it possible to compare levels of digital readiness rather than to describe a single configuration.

Informants and Sampling

Informants were selected purposively on the criterion of direct involvement in financial reporting or in the management of the reporting system, and the set was then extended through snowball sampling, in which each initial informant identified further staff whose work bears on recording, closing and supervision. Ten key informants participated. Supporting information was obtained from members and from front-office staff who are

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not directly responsible for reporting. Data collection continued until responses on the core themes became repetitive and no new categories emerged.

Table 2. Characteristics of Key Informants

No	KSPPS	Position	Years of service	Relevance to the study
1	Yaumi MAS	Manager	> 5	Strategic decisions on technology adoption and financial policy
2	Yaumi MAS	Finance staff	> 5	User of the reporting system and principal source of recording data
3	Yaumi MAS	IT staff	> 5	Responsible for implementation and maintenance of the system
4	Harapan Umat (Harum)	Manager	> 5	General decision-maker and assessor of technology needs
5	Harapan Umat (Harum)	Finance staff (also handling the IT of the finance programme)	> 5	Point of contact between reporting practice and system administration
6	Artha Bahana Syariah (ABS)	Manager	> 5	Determines policy direction and the vision for technology implementation
7	Artha Bahana Syariah (ABS)	Finance staff	> 5	Executes reporting and monitors the accuracy of recorded data
8	Artha Bahana Syariah (ABS)	IT staff	> 5	Understands the infrastructure and the capability of the in-house system
9	BMT Berkah Al-Fath Mulia	Manager	> 5	Decision-maker with full knowledge of the cooperative's business flow
10	BMT Berkah Al-Fath Mulia	Finance staff concurrently responsible for IT	> 5	User, operator and technical custodian of the reporting system

Source: Primary data processed, 2025.

Data Collection

Data were collected through semi-structured interviews, direct observation and documentation. The interview protocol was developed from the operational indicators of transparency and accuracy set out below and from the three enabling conditions of AI, and it was reviewed and validated in a focus group discussion held before fieldwork; a second focus group discussion was held after analysis to confirm the findings with practitioners. Interviews were semi-structured: a fixed list of questions covered the system in use, its history, the daily closing process, error handling, reconciliation, data security, staff training and internal supervision practice, while follow-up questions were free to develop from the answers given. Each interview lasted approximately 45-60 minutes, was conducted at the head office of each cooperative, and was recorded with the informant's consent and transcribed in full; the transcripts are retained by the researchers.

Observation focused on the reporting systems themselves. The researchers observed the entry of transactions by front-office and finance staff, the daily closing routine, the generation of periodic statements, the menu structure of each application, and the use

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of the mobile version of the application by field marketing staff. Documentation comprised monthly and annual financial statements, daily closing records, records of recording differences, internal supervisory unit examination reports, backup and system-maintenance records, and application licence or rental agreements.

Operationalisation of AI Adoption and Digital Readiness

Because the term AI is used loosely by practitioners, this study did not ask informants whether they use AI and record the answer. Instead, each system was assessed against the definitional criterion set out in Table 1: a system counts as AI only if some component of it learns from data, generates predictions or classifications, or makes decisions that are not encoded as explicit rules. Evidence was sought in three ways: through direct questioning about the functions of each module, through observation of the system in operation, and through documentation of the modules supplied by the vendor or built in-house. Where no such component could be identified, the cooperative was classified as not having adopted AI, regardless of how advanced its digital infrastructure might be.
Digital readiness for AI adoption was then assessed separately, using the three enabling conditions and the criteria set out in Table 3. Readiness describes the technological base on which AI could be built; it does not imply that AI is present.

Table 3. Assessment Framework for AI Adoption and Digital Readiness

Enabling condition	Indicator observed	High readiness	Moderate readiness
Data availability	Whether transaction data from all service points are recorded in a single system and updated continuously	All branches and field staff record online; data are current at all times	Part of the operation records manually; data are synchronised in batches
Algorithmic capability	Type of processing performed: rule-based, descriptive, or learning and predictive	Rule-based processing operating continuously across the whole transaction flow	Rule-based processing limited to back-office routines
Computing power	Capacity of servers or hosted services to process the transaction volume without interruption	Adequate for continuous multi-branch operation	Functional for existing routines but not scaled for continuous processing
AI component	Presence of a module that learns from data, predicts or classifies without explicit rules	Not required for readiness; its presence would indicate adoption	Not required for readiness; its presence would indicate adoption

Source: Developed by the authors, 2025.

Indicators of Transparency and Accuracy

Transparency and accuracy were assessed through the indicators presented in Table 4. Each indicator was addressed in the interview protocol, corroborated by observation, and where possible verified against documents.

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Table 4. Operational Indicators of Reporting Transparency and Accuracy

Concept	Indicator	Evidence used
Transparency	Timeliness of reporting	Whether daily closing can be completed on schedule; interval between transaction and its appearance in the head-office report
	Accessibility of information	Which parties can obtain which reports, through which channel, and how quickly
	Completeness of disclosure	Coverage of the statements produced and of the information given to members
	Comprehensibility	Form in which information reaches members and supervisors and the assistance required to interpret it
Accuracy	Input validation	Whether the system detects typographical or duplicate entries at the point of input
	Reconciliation capability	Whether the system reconciles recorded balances with physical cash and locates the source of any difference
	Incidence and type of error	Errors reported by staff and recorded in closing documents, and the effort required to resolve them
	Audit trail and internal verification	Whether a recorded entry can be traced to its origin, and how records are verified by the internal supervisory function

Source: Developed by the authors, 2025.

Validity and Data Analysis

The validity of the data was tested through triangulation. Source triangulation compared the accounts of managers, finance staff and IT staff within the same cooperative; technique triangulation compared interview statements with what was observed in the system and with what the documents recorded; and time triangulation involved returning to informants on separate occasions, including the confirmation focus group discussion held after analysis. Data were analysed using the interactive model of Miles and Huberman through the stages of data reduction, data display and verification, carried out concurrently with data collection so that unclear or incomplete answers could be pursued in subsequent rounds.

Result and Discussion

Result

Level of AI Adoption and Digital Readiness in Financial Reporting

Assessed against the definitional criterion in Table 1, none of the four KSPPS has adopted Artificial Intelligence in its financial reporting system. The applications in use, Imf@ at Yaumi MAS and Harum, Artos System (OS) at ABS and Baraty at Berkah Al-Fath Mulia, perform recording, posting, balance checking, report generation and, in three cases, continuous multi-branch synchronisation. In every case the processing is rule-based. No module was identified, through questioning, observation or documentation, that learns from historical data, produces predictions or classifies transactions without explicit rules.

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Informants at all four cooperatives confirmed that no such function exists in their systems; the manager of Harum observed that automated detection of input errors is not available and suggested it as a request to the vendor for a future update, which itself indicates the absence of the capability.

What does vary between the cooperatives is the strength of the digital base on which such capability could be built. Applying the criteria in Table 3, three cooperatives display a high level of digital readiness and one displays a moderate level. Table 5 presents this classification. It should be read as a description of enabling infrastructure, not as a measure of AI implementation.

Table 5. Categorisation of KSPPS by Level of Digital Readiness for AI Adoption

No	KSPPS	System	Digital readiness level	Observed condition
1	KSPPS Yaumi MAS	Imf@	High readiness; AI not adopted	Around twenty branches recording online and in real time, including field marketing staff using the mobile version; in-house IT capacity; Linux environment with duplicated backup. Processing is rule-based; no learning or predictive module identified.
2	KSPPS Artha Bahana Syariah (ABS)	Artos System (OS)	High readiness; AI not adopted	In-house system covering nineteen branches and one central operational office; data connected, real time and of large volume; dedicated internal supervisory unit. Processing is rule-based; the system cannot detect differences between records and physical cash automatically.
3	KSPPS Harapan Umat (Harum)	Imf@	High readiness; AI not adopted	Online and real-time recording since 2018, usable on mobile devices for field marketing; separate server and application. Processing is rule-based; automated detection of input errors is explicitly absent.
4	KSPPS BMT Berkah Al-Fath Mulia	Baraty	Moderate readiness; AI not adopted	Application online since 2023, but field marketing still operates manually and cash-office reports are transmitted to head office and synchronised in batches, so the data available at any moment are not fully current. Computing capacity is functional for existing routines rather than for continuous processing.

Source: Primary data processed, 2025.

Current Transparency of Reporting and the Scope for AI

Interviews and observation show that the level of digitalisation is closely related to the transparency indicators defined in Table 4. In the three cooperatives with high readiness, transactions recorded at a branch or in the field appear in the head-office system immediately, so that management can monitor performance without waiting for a periodic submission, and daily closing can in principle be completed on the same day. At Berkah Al-Fath Mulia, by contrast, reports from the cash office are sent to head office and then synchronised into the central records, so that the information available at head office at any

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given moment lags behind events in the field; timeliness in the sense used here is therefore not fully met.

Accessibility differs in a similar way. At Yaumi MAS, field marketing staff work directly in the application on their mobile devices, so member transactions are visible in the system at the moment they occur. Members themselves obtain information through the counter and through the mobile banking facilities offered by each cooperative. Comprehensibility remains dependent on staff explanation in all four cases; no cooperative provides members with an interface that answers questions about balances or products without human intervention. Table 6 sets out the current conditions alongside the AI applications that these conditions could support. The right-hand column describes possibilities identified during the research, not functions currently in operation.

Table 6. Current Transparency Conditions and Potential (Not Yet Implemented) AI Applications

No	Entity	System	Current condition (observed)	Potential AI application (not yet implemented)
1	Yaumi MAS and Harum	Imf@	Recording is online and in real time; members obtain information through staff at the counter or through mobile banking.	A natural-language assistant could allow members to obtain balance, transaction history and product information without staff mediation, which would improve accessibility. No such facility exists at present.
2	Yaumi MAS	Imf@	Field marketing staff enter transactions directly in the application, so records are created at the point of service.	Analysis of member behaviour could support personalised notifications and reporting. This would require a learning component that the system does not have.
3	ABS	Artos System (OS)	Data from all branches are connected and current, and the volume accumulated is substantial.	The accumulated data could feed interactive dashboards for supervisors and management. At present, reports are generated in fixed formats.
4	All four cooperatives	All systems	Access to the system requires familiarity with the application; members depend on staff explanation.	Voice or conversational query facilities could ease access for users unfamiliar with the application. This is an opportunity, not an observed outcome.

Source: Primary data processed, 2025.

Current Accuracy of Reporting and the Scope for AI

On the accuracy indicators, the field evidence is more mixed and identifies the problems that most concern the cooperatives themselves. Input validation is the clearest gap. At Yaumi MAS and Harum, a typographical error or a duplicated entry leaves the accounts out of balance and blocks daily closing, and staff must search manually until the error is located. At ABS, the system itself does not produce differences, but differences

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arise between recorded balances and physical cash, and the application cannot locate them automatically, so cashiers check entries one by one. Recording is also exposed to connectivity: when the internet is unstable or unavailable, data do not enter in real time, which affects both timeliness and the risk of duplicated entry when the connection returns. On the audit trail, integration has produced a clear gain. Where recording is connected and systematised, as informants at Yaumi MAS emphasised, every entry is attributable to the account that created it and can be traced back to its origin, which strengthens control over the record itself. Verification of those entries, however, remains a human task in all four cooperatives: it is carried out through the routine examinations of the internal supervisory unit and through the checking performed at closing, rather than continuously by the system. At Berkah Al-Fath Mulia the trail is weaker still, since entries created in the field are recorded manually before being synchronised, so the origin of a figure cannot always be established from the system alone. Table 7 sets out these conditions and the AI applications they would justify.

Table 7. Current Accuracy Conditions and Potential (Not Yet Implemented) AI Applications

No	Aspect	Current condition without AI (observed)	Potential AI application (not yet implemented)
1	Data input and daily closing	In Imf@, a typographical error or duplicate entry leaves the accounts unbalanced and prevents closing; the error must be located by manual search.	Automated input validation could flag anomalous entries at the point of input on the basis of historical patterns, shortening daily closing. This capability is absent from the systems studied.
2	Reconciliation and cash differences	At ABS the system records no internal differences, but differences with physical cash occur and cannot be traced automatically, so the cashier checks entries individually. Harum reports comparable differences between amounts and recorded values.	Intelligent reconciliation could compare recorded entries with cash and digital transaction data and indicate the probable source of a difference, reducing manual checking time.
3	Connectivity	When the connection is unstable or lost, data do not enter in real time and the process is delayed.	Queue management with verified synchronisation on reconnection could reduce the risk of lost or duplicated data. Existing systems handle this manually.
4	Audit trail	Where recording is connected, every entry is attributable to the account that created it; at Berkah Al-Fath Mulia, entries made in the field are recorded manually before synchronisation, so their origin cannot always be established from the system.	Automated tracing of the origin and subsequent alteration of an entry could strengthen the trail without additional manual work.
5	Internal verification	Verification of recorded entries relies on periodic examination by the internal supervisory unit and on	Continuous analysis of recording patterns could support the internal supervisory function between

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checking at closing, rather than on continuous monitoring by the system.	examinations. No such analysis is performed at present.

Source: Primary data processed, 2025.

Opportunities for Artificial Intelligence Implementation

The opportunities identified in this study derive from the coincidence of a strong digital base with unresolved operational problems.Three of the four cooperatives already possess the two conditions that AI most requires: transaction data that are current and complete, and infrastructure capable of processing them continuously. At the same time, the problems that consume most staff time, locating input errors before closing and tracing differences between records and cash, are pattern-recognition problems of exactly the kind for which learning systems are suited. The strongest near-term opportunity is therefore internal control: validation at the point of input and reconciliation support, which address daily accuracy directly.

A second opportunity concerns the accessibility of information to members. Cooperatives already operate mobile banking facilities. A conversational interface built on these facilities could reduce members' dependence on staff explanation and support education about sharia products. A third opportunity concerns security: despite existing backup practice and the use of Linux at Yaumi MAS, the malware incident experienced by Harum indicates the value of adaptive threat detection. Finally, adoption need not require large capital outlay, since cloud-based services allow capability to be rented rather than built, which matters for institutions whose current systems are themselves rented at around seven million rupiah per year.

Challenges of Implementing Artificial Intelligence Based on Findings in the Field

The challenges identified fall into three groups: technological, organisational and environmental, following the TOE contexts adopted as the analytical framework.

a. Technology: infrastructure, connectivity and data governance

Even though the cooperatives have adopted online systems, the obstacle most frequently reported is an unstable or interrupted internet connection, which prevents data from entering in real time. This constraint is critical because Imf@ and Artos depend on connectivity for real-time operation. Initial data quality is a second technological weakness: the systems in use do not validate input, so typographical and duplicate entries produce imbalances that require manual searching, and Artos cannot reconcile records with cash automatically. Data governance and security risks are real rather than hypothetical: Harum was affected by malware for four days as a result of a lapse in backup practice, and although Yaumi MAS uses Linux and duplicated backup for protection, malware risk and server downtime remain serious technical constraints.

b. Organisation: human resources, capital and vendor dependence

Technical capacity is thinly distributed. Yaumi MAS maintains in-house IT expertise and reports no difficulty in resolving system problems, whereas at Harum the finance function handles the application directly and at Berkah Al-Fath Mulia a single member of staff combines finance and IT responsibilities. Training is short: ABS reports two to three days of instruction supported by a manual that staff master while working. Capital

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constrains what can be acquired: the cooperatives rent their reporting applications rather than owning them, at a cost of around seven million rupiah per year, and depend on the vendor for functional improvements, so that a capability as basic as automated input validation can only be requested and awaited. Any move toward AI would therefore require both a skills base that does not yet exist and a procurement model different from the present one.

c. Environment: regulation and external dependence

The regulatory environment shapes what cooperatives may do with their systems, since the functions an application may offer are bounded by the permitted scope of KSPPS activity. No specific guidance yet exists on the use of AI in cooperative financial reporting, on the treatment of member data or on responsibility for decisions supported by algorithms, which leaves adopters exposed to regulatory uncertainty. Sharia governance adds a further requirement, since any system affecting the recording of contracts must remain auditable by the Sharia Supervisory Board.

Discussion

Digital Readiness, Transparency and Accuracy

The findings require a conclusion more cautious than the one suggested by the literature. What was observed in Pati Regency is not the implementation of Artificial Intelligence but the completion of a digital foundation on which AI could be built. Three of the four cooperatives have reached the point at which transaction data are complete, current and centrally held, and infrastructure processes them without interruption; one has not, because part of its operation remains manual and synchronisation occurs in batches. Describing the first group as advanced adopters of AI, as an earlier reading of the same evidence might suggest, would confuse a prerequisite with the thing itself.

Judged against the indicators defined in this study, real-time digitalisation improves transparency substantially. Timeliness is met where recording is continuous, since transactions appear centrally as they occur and closing is not delayed by the transmission of reports; accessibility improves because management and supervisors can consult current figures without requesting them. Where synchronisation occurs in batches, both indicators weaken, and reports reach head office after a delay that no amount of subsequent processing can recover. Comprehensibility, however, has not improved anywhere: members still depend on staff to interpret what they are shown, and this is the transparency indicator on which digitalisation alone has had the least effect.

The effect on accuracy is more limited than the transparency findings might suggest, and this is the more important result. Real-time recording removes one class of error, that arising from transcription between systems, and management at Yaumi MAS attributes its strengthened control over entries to the fact that everything is connected and systematized. It does not, however, address errors that occur at the point of input, because no system studied validates entries as they are made; nor does it reconcile records with physical cash; nor does it verify entries continuously, since verification still depends on periodic examination by supervisory staff. These three gaps are precisely the ones that rule-based

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automation cannot close and that learning systems could, which is why the case for AI in these institutions rests on internal control rather than on reporting speed.

The Sharia Dimension of Digital Reporting

For KSPPS, transparency and accuracy are elements of amanah, and the technology that supports them acquires a normative significance it would not have in a conventional institution. Complete and timely records make it possible to demonstrate that a contract has been executed as agreed, that ujrah or margin has been recognised as the contract specifies rather than as interest, and that the presentation of statements follows sharia accounting standards. Real-time systems assist this demonstration by producing a continuous audit trail that the Sharia Supervisory Board and the internal supervisory unit can examine. This aligns with the finding of Nasiroh et al. (2025) that an application-based digital system supports transparency and efficiency at a KSPPS in the same regency, while disclosure of costs and risks to members remains incomplete.

The limits of this contribution should be stated precisely. Technology, whether rule-based or intelligent, can support sharia-compliant reporting; it cannot ensure sharia compliance. Compliance is determined by the structure of the contract, by the substance of the transaction and by the judgement of the Sharia Supervisory Board, none of which is a property of a reporting system. What a well-designed system can do is make non-compliance visible sooner, make the record harder to falsify and make disclosure to members easier. A system that learns from data would additionally raise governance questions of its own, since a recommendation whose basis cannot be explained is difficult to reconcile with the accountability that sharia supervision requires.

Interpretation through the TOE Framework

Read through the TOE framework, the pattern observed is coherent. In the technological context, three cooperatives satisfy the conditions for adoption and one does not, and the difference corresponds to scale: the institutions with around twenty and nineteen branches operate fully online, while the institution operating two branches retains manual field operations. In the organisational context, readiness is weaker than the technological picture suggests, since IT capacity is concentrated in one cooperative, training is measured in days, and applications are rented rather than owned, which places the pace of functional improvement in the hands of vendors. In the environmental context, regulation currently defines the permitted scope of cooperative activity without yet providing guidance on what responsible use of AI would involve.

This distribution suggests that the binding constraint on AI adoption in Islamic microfinance is organisational and environmental rather than technological, a reading consistent with Mawardi et al. (2024), who find that the contribution of technological development to Islamic financial development materialises only where institutional quality is adequate, and with Rahman et al. (2023), for whom organisational readiness rather than technical availability governs AI adoption in banking services. It also indicates the form that

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useful policy would take: knowledge sharing between cooperatives, subsidy or shared procurement of infrastructure, structured training, and regulatory guidance addressing data protection and accountability for algorithmic outputs. Without these, the disparity between larger and smaller cooperatives will widen, since the institutions least able to invest are also those with the least supervisory capacity and therefore the greatest need for stronger internal control.

Opportunities and Challenges Reconsidered

The opportunities identified in the results section should be understood as an agenda rather than as findings about performance. Input validation, intelligent reconciliation, continuous monitoring of recording patterns and conversational access to information are applications that the field evidence justifies, in the sense that each corresponds to a documented and unresolved problem in these cooperatives. None has been tested in this setting, and this study offers no evidence about the magnitude of benefit any of them would deliver. The value of stating them lies in their specificity: they are derived from what staff actually struggle with daily rather than from a general account of what AI can do.

The challenges, by contrast, are observed. Connectivity failures, absent input validation, a malware incident lasting four days, thinly staffed IT functions, short training, rented systems and regulatory silence on AI are all documented in the field data. They also stand in a definite relationship to the opportunities: monitoring system requires reliable connectivity and clean input to function, so the sequence matters. Improving input validation and data governance is a precondition for anything more sophisticated, which suggests that these cooperatives should strengthen the foundation before acquiring intelligence to sit on top of it.

Conclussion

This study set out to establish how far AI has been adopted in the financial reporting of KSPPS in Pati Regency, how the systems in use affect transparency and accuracy, and what constrains future adoption.

On the first question, none of the four cooperatives has adopted Artificial Intelligence. Their systems, Imf@, Artos System and Baraty, perform rule-based recording, posting, balance checking and reporting, and contain no component that learns from data, predicts or classifies without explicit rules. What differs between them is digital readiness for future adoption: KSPPS Yaumi MAS, KSPPS Artha Bahana Syariah and KSPPS Harapan Umat display a high level of readiness, since their data are complete, current and centrally integrated and their infrastructure processes them continuously, while KSPPS BMT Berkah Al-Fath Mulia displays a moderate level, since part of its operation remains manual and data are synchronised in batches. These cooperatives are therefore at a pre-adoption stage. On the second question, real-time digitalisation has improved transparency more than accuracy. Timeliness and accessibility are satisfied where recording is continuous and weaken where it is not, but comprehensibility for members has not improved in any of

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the four cooperatives. Accuracy has improved only in part: transcription errors have been reduced and the audit trail has been strengthened where recording is connected, yet input validation is absent everywhere, reconciliation with physical cash remains manual, and verification of entries still depends on periodic examination rather than on the system. On the third question, the barriers are principally organisational and environmental rather than technological. They comprise unstable connectivity, weak initial data validation, exposure to malware, thinly staffed and briefly trained IT functions, dependence on rented systems and on vendor development schedules, limited capital, and the absence of specific regulatory guidance on the use of AI and on accountability for algorithmic outputs. The opportunities correspond to documented problems rather than to demonstrated results: validation at the point of input, reconciliation support, continuous monitoring of recording patterns and conversational access to information for members are applications that the evidence justifies exploring, but this study did not test them and makes no claim about the benefit they would produce. In relation to sharia accountability, the appropriate conclusion is that digital systems, and prospectively AI, can support sharia-related reporting and service by producing a continuous and auditable record, making non-compliance visible earlier and easing disclosure to members. They cannot by themselves ensure sharia compliance, which rests on contract structure, transaction substance and the judgement of the Sharia Supervisory Board.

Bibliography

Abdullah, A. A. H., & Almaqtari, F. A. (2024). The impact of artificial intelligence and Industry 4.0 on transforming accounting and auditing practices. *Journal of Open Innovation: Technology, Market, and Complexity*, *10*(1), 100218. https://doi.org/10.1016/j.joitmc.2024.100218

Anggadini, S. D., Zosanti, O. M. P., Mutmainah, U. G., & Saputra, H. (2021). Pemanfaatan Teknologi pada Kualitas Laporan Keuangan Perusahaan. *Journal Of Information Sistem, Applied, Management, Accounting and Research*, *5*(3), 644–649.

Awwad, B. S., Alkababji, M. W., & Razia, B. S. (2024). Artificial intelligence and the quality of accounting information in Palestinian industrial companies. *Journal of Financial Reporting and Accounting*. https://doi.org/10.1108/JFRA-07-2024-0417

Badghish, S., & Soomro, Y. A. (2024). Artificial Intelligence Adoption by SMEs to Achieve Sustainable Business Performance: Application of Technology–Organization–Environment Framework. *Sustainability (Switzerland)* , *16*(5). https://doi.org/10.3390/su16051864

Durongkadej, I., Hu, W., & Wang, H. E. (2024). How artificial intelligence incidents affect banks and financial services firms? A study of five firms. *Finance Research Letters*, *70*(August), 106279. https://doi.org/10.1016/j.frl.2024.106279

Eriana, E. S., & Zein, D. A. (2023). Artificial Intelligence. *Angewandte Chemie International Edition*, *6(11)*, 1.

Juniardi, E. (2024). Peran Dan Praktik Artificial Intelligence Akuntansi : *Jurnal Revenue*, *4*(2), 885–898.

Kokina, J., Blanchette, S., & Davenport, T. H. (2025). International Journal of Accounting

Vol 13, No 2: Agustus 2026 232-251
ISSN: 2460-9889 (Print)
ISSN: 2580-3565 (Online)

Challenges and opportunities for artificial intelligence in auditing : Evidence from the field ☆. *International Journal of Accounting Information Systems*, *56*(September 2023), 100734. https://doi.org/10.1016/j.accinf.2025.100734

Kureljusic, M., & Karger, E. (2024). Forecasting in financial accounting with artificial intelligence – A systematic literature review and future research agenda. *Journal of Applied Accounting Research*, *25*(1), 81–104. https://doi.org/10.1108/JAAR-06-2022-0146

Mawardi, I., Al Mustofa, M. U., Widiastuti, T., & Ghozali, M. (2024). The influence of institutional quality, economic freedom, and technological development on Islamic financial development in OIC countries. *Journal of Open Innovation: Technology, Market, and Complexity*, *10*(2), 100279. https://doi.org/10.1016/j.joitmc.2024.100279

Nasiroh, F., Aini, Q., & Fitriyani, Y. (2025). Hajj Financing Transparency in Islamic Cooperatives: Evidence from KSPPS Artha Bahana Syariah. *Dinar: Jurnal Ekonomi Dan Keuangan Islam*, *12*(1), 102–116. https://journal.trunojoyo.ac.id/dinar/article/view/28768

Qudah, H., Malahim, S., Airout, R., Alomari, M., Hamour, A. A., & Alqudah, M. (2023). Islamic Finance in the Era of Financial Technology: A Bibliometric Review of Future Trends. *International Journal of Financial Studies*, *11*(2). https://doi.org/10.3390/ijfs11020076

Rahman, M., Ming, T. H., Baigh, T. A., & Sarker, M. (2023). Adoption of artificial intelligence in banking services: an empirical analysis. *International Journal of Emerging Markets*, *18*(10), 4270–4300. https://doi.org/10.1108/IJOEM-06-2020-0724

Resalia Resalia, Heni Nurmayana Soleha, Alya Bahira, & Rudi Sanjaya. (2024). Pengaruh Artificial Intelligence dalam Pembuatan Laporan Keuangan. *Jurnal Rimba : Riset Ilmu Manajemen Bisnis Dan Akuntansi*, *2*(4), 75–81. https://doi.org/10.61132/rimba.v2i4.1330

Rina Septiriana, S. R. W., & Darma, P. E. (2024). Application of artificial intelligence in the prevention of fraud in financial statements. *Jurnal Ekonomi*, *13*(1), 2278–2290. https://doi.org/10.54209/ekonomi.v13i01

Sahrani, S., Damirah, D., & ... (2024). Financial Literacy: Digital Islamic Finance in Community Economic Development. … *of Islamic* …, *12*(1), 37–50. https://conferences.uin-malang.ac.id/index.php/iconies/article/view/3000

Santoso, J. T. (2023). Kecerdasan Buatan. In *Yayasan Prima Agus Teknik*. Yayasan Prima Agus Teknik.

Seethamraju, R., & Hecimovic, A. (2020). Impact of artificial intelligence on auditing - An exploratory study. *26th Americas Conference on Information Systems, AMCIS 2020*, *September 2020*.

Soegiarto, D., & Mulyani, U. R. (2022). Pelatihan Mendeteksi FRAUD Pada Koperasi di Kabupaten Kudus. *Muria Jurnal Layanan Masyarakat*, *4*(2), 80–85. https://doi.org/10.24176/mjlm.v4i2.7474

Tampubolon, F. M., & Hasibuan, A. B. (2019). Pengaruh Komitmen Organisasi, Kompetensi Sumber Daya Manusia Dan Pemanfaatan Teknologi Informasi Terhadap Kualitas Laporan Keuangan Pemerintah. *Oikos: Jurnal Kajian Pendidikan Ekonomi Dan Ilmu Ekonomi*, *3*(1), 55–65.

Vol 13, No 2: Agustus 2026 232-251
https://journal.trunojoyo.ac.id/dinar/index
ISSN: 2460-9889 (Print)
DOI: https://doi.org/10.21107/dinar.v8i2.9954
ISSN: 2580-3565 (Online)

Wamba-Taguimdje, S. L., Fosso Wamba, S., Kala Kamdjoug, J. R., & Tchatchouang Wanko, C. E. (2020). Influence of artificial intelligence (AI) on firm performance: the business value of AI-based transformation projects. *Business Process Management Journal*, *26*(7), 1893–1924. https://doi.org/10.1108/BPMJ-10-2019-0411

Weygandt, J. J., Kimmel, P. D., & Kieso, D. E. (2015). *Financial Accounting IFRS, 3rd Edition-dikompresi_compressed*.

Yusuf, M. F. M., Ika Maya Sari, Ahmad Hamid, & Ilham Akbar Garusu. (2023). Integrasi Teknologi Artificial Intelligence Dalam Sistem Akuntansi Modern. *Journal of Trends Economics and Accounting Research*, *4*(1), 230–234. https://doi.org/10.47065/jtear.v4i1.902

Zemánková, A. (2019). Artificial intelligence and blockchain in audit and accounting: Literature review. *WSEAS Transactions on Business and Economics*, *16*, 568–581.