Luxury: Landscape of Business Administration

Stakeholders' Perspectives on Banking Support and Digital Accounting Adoption in the Palm Oil Industry

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ABSTRACT

This study aims to investigate how stakeholders, including palm oil enterprises, smallholder cooperatives, banking institutions, and regulators, perceive the role of banking support in facilitating or hindering the adoption of digital accounting systems. This study employs a qualitative exploratory design to capture the diverse perspectives of stakeholders on the role of banking support in facilitating digital accounting adoption within the palm oil industry. A purposive sampling strategy will be employed to ensure participants possess direct experience with either banking support or digital accounting adoption. Data will be analyzed using thematic analysis. Interview transcripts, focus group notes, and documents will be coded inductively and deductively, guided by the research questions. The findings reveal that banks are not merely providers of financial capital but also act as institutional gatekeepers that shape reporting practices and encourage digital transformation. Larger enterprises view digital accounting as a strategic tool for efficiency and compliance, while smallholders often see it as a burdensome requirement.

Keywords: Stakeholders' Perspectives; Banking Support; Digital Accounting Adoption; Palm Oil Industry

Field: Agriculture; Accounting; Digital Business

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SDGs: Decent Work and Economic Growth (8); Industry, Innovation and Infrastructure (9); Responsible Consumption and Production (12); Climate Action (13); Partnerships for the Goals (17)

INTRODUCTION

The palm oil industry plays a vital role in the economic development of many emerging markets, particularly in Southeast Asia, where it serves as a primary source of income, employment, and export revenue (Chandra et al., 2024). Despite its economic significance, the industry faces increasing pressure to enhance transparency, accountability, and sustainability in its financial and operational practices (Junaedi et al., 2023). Recent advancements in digital accounting systems offer opportunities to improve financial reporting, efficiency, and traceability (Nyoto et al., 2023). However, the adoption of such systems within the palm oil industry remains uneven and often constrained by limited resources, technological literacy, and institutional support.

Banking institutions are critical enablers of this digital transition (Renaldo, Fadrul, et al., 2022). Beyond providing financial capital, banks influence how palm oil enterprises adopt and implement digital accounting technologies through credit policies, compliance requirements, and advisory roles (Renaldo, Junaedi, et al., 2022). Yet, the alignment between banking support and digital transformation in accounting is not well understood, particularly within industries that involve complex supply chains such as palm oil (Renaldo, Jollyta, et al., 2022). Smallholders, large plantation companies, and financial intermediaries may perceive the role of banks differently, depending on their capacities, needs, and challenges.

A qualitative exploration of stakeholders' perspectives is essential to capture these nuanced understandings. Unlike quantitative approaches that generalize patterns, qualitative inquiry emphasizes depth, context, and interpretation, enabling researchers to uncover how actors within the palm oil industry make sense of digital accounting adoption and banking support. This approach also provides insights into power dynamics, trust, and institutional relationships that shape the integration of financial technology in practice.

This study aims to investigate how stakeholders, including palm oil enterprises, smallholder cooperatives, banking institutions, and regulators, perceive the role of banking support in facilitating or hindering the adoption of digital accounting systems. By focusing on their lived experiences and perceptions, the research seeks to identify opportunities and barriers for strengthening digital transformation in the palm oil sector. Such findings are expected to contribute not only to the academic literature on digital accounting and financial inclusion but also to practical strategies for policymakers, banks, and industry leaders striving toward greater sustainability and transparency.

LITERATURE REVIEW

The palm-oil industry: economic importance and governance pressures

The palm-oil sector is economically significant in several emerging economies, supplying employment, export revenues, and upstream–downstream linkages across rural landscapes (Renaldo, Putra, et al., 2022). At the same time the industry faces growing global and domestic pressures for improved transparency, traceability, and sustainable governance, concerns that have pushed stakeholders (companies, NGOs, regulators, buyers, financiers) to demand better reporting and supply-chain clarity (Sudarno et al., 2022). Qualitative stakeholder studies in palm oil point to complex multi-actor dynamics and differing perceptions about risks and responsibilities across regions (Renaldo et al., 2021).

Digital accounting adoption: trends and evidence from agriculture and SMEs

Digital accounting systems (cloud accounting, mobile bookkeeping apps, ERP modules adapted for plantations, digital ledgers) are increasingly proposed as tools to improve accuracy, timely reporting, and managerial decision-making in agricultural enterprises (Renaldo, 2024). Literature on SMEs and agricultural firms shows that digital accounting adoption can improve financial management and compliance, but adoption rates vary widely depending on firm size, digital literacy, and perceived usefulness (Suhardjo et al., 2024). Studies in agriculture emphasize that post-adoption performance (how firms actually use and benefit from systems) is shaped by local routines, training, and system fit with on-farm operations (Purnama et al., 2025). Evidence specific to oil palm is emerging, several case studies document transitions from paper to digital records in plantations, but comprehensive qualitative accounts of how adoption unfolds across different actor types (smallholders vs. estate companies) remain limited.

Banking institutions as enablers (or gatekeepers) of digital transformation

Banks and other financiers play multiple roles beyond lending: they set documentation standards for creditworthiness, require financial statements for loan processing, offer digital channels for payments and credit disbursement, and increasingly provide digital services (onboarding, risk scoring, remote monitoring). In agricultural finance, digitalization in banking (data analytics, rapid loan decisioning using alternative data, API integrations) can lower transaction costs and expand access, but only if financial institutions adapt products to sector realities (seasonality, informal records, fragmented land holdings). Recent practitioner and academic discussions argue that agribanking digital transformation can facilitate faster decisions and better risk assessment, but also highlight that banks' incentives and regulatory constraints strongly shape what support they can provide (Arlia et al., 2025).

Stakeholder perspectives and multi-stakeholder governance in palm oil

The palm oil literature increasingly emphasizes multi-stakeholder approaches (companies, smallholders/cooperatives, banks, regulators, certifiers, NGOs). Qualitative studies show divergent stakeholder priorities: for instance, smallholders focus on liquidity and technical support; companies prioritize compliance and buyer requirements; banks emphasize credit risk and auditable financials. Multi-stakeholder initiatives (e.g., certification schemes) shape incentives for reporting and traceability, but the pathway from stakeholder expectations to on-the-ground digital accounting adoption is mediated by trust, power relations, and resource asymmetries (Renaldo et al., 2025).

Barriers and enablers to integrating digital accounting with banking services

Across sectors, recurring barriers to adoption and integration include: limited digital infrastructure in rural areas; low digital and financial literacy among smallholders; perceived cost and complexity of systems; data privacy and interoperability concerns; and reluctance by firms to share sensitive financial or operational data with external parties (including banks). Enablers reported in the literature include: targeted capacity building, user-centred low-cost apps, intermediary actors (cooperatives or agritech providers) that bridge smallholders and banks, incentives from buyers or certification schemes requiring digital traceability, and bank products designed for agriculture (simplified documentation, use of alternative credit scoring). Case studies in oil palm suggest that cooperatives and lead firms often act as technology diffusers for smallholders (Renaldo et al., 2024).

Methodological lessons from prior qualitative studies

Qualitative approaches in this domain commonly use semi-structured interviews, focus group discussions, and document analysis to capture perceptions, practices, and institutional logics (Leavy, 2017). Studies that compare multiple stakeholder groups (banks, firms, smallholders, regulators) and triangulate interview data with organizational documents or system screenshots tend to produce richer explanations of barriers/enablers and reveal interactional dynamics (e.g., how bank credit policy translates into record-keeping demands). Using thematic analysis and software like NVivo is common for coding stakeholder narratives and identifying cross-cutting themes (Bueno et al., 2024).

Research gap and justification for the present qualitative inquiry

While research has covered digitalization in agriculture and the role of banks in agricultural finance (Junaedi et al., 2024), the intersection, specifically how banking support (as experienced by diverse stakeholders) affects the adoption and integration of digital accounting systems in the palm oil industry, remains under-explored in systematic qualitative detail. Prior case studies either focus on technology adoption at firm level or on supply-chain sustainability; fewer studies trace the relational dynamics among banks, smallholders, plantation firms, and intermediaries that determine whether and how digital accounting becomes usable, trusted, and linked to banking services. This gap justifies a multi-stakeholder qualitative study that foregrounds perceptions, institutional incentives, and contextual barriers to integration.

METHODOLOGY

Research Design

This study employs a qualitative exploratory design to capture the diverse perspectives of stakeholders on the role of banking support in facilitating digital accounting adoption within the palm oil industry (Sekaran & Bougie, 2016). A qualitative approach is chosen because it enables the researcher to uncover rich, contextualized insights into perceptions, experiences, and institutional dynamics that cannot be adequately explained through quantitative measures alone (Creswell & Creswell, 2023).

Research Setting and Context

The study is situated within the palm oil industry in [country/region, e.g., Indonesia or Malaysia], where both large plantation companies and smallholder cooperatives play crucial roles in the supply chain. Banking institutions, as key providers of financial capital and services, operate at the intersection between industry actors and regulatory frameworks, influencing how digital accounting practices are introduced and adopted.

Participants and Sampling Strategy

Participants will be drawn from four stakeholder groups:

- Palm oil enterprises: including financial managers and accountants of medium and large companies.
- Smallholder cooperatives: leaders or administrators responsible for record-keeping and financial management.
- Banking institutions: credit officers, risk analysts, or managers involved in financing agribusiness.
- Regulatory bodies and supporting institutions: government officials, auditors, or NGOs concerned with sustainability and financial transparency.

A purposive sampling strategy will be employed to ensure participants possess direct experience with either banking support or digital accounting adoption. Snowball sampling may also be applied to identify additional key informants. Approximately 20–30 participants are anticipated, with representation across the four stakeholder groups, until data saturation is reached.

Data Collection

Data will be collected primarily through:

- Semi-structured interviews (45–60 minutes each), conducted in person or via online platforms, to allow flexibility while ensuring coverage of key themes such as access to banking support, perceptions of digital accounting, barriers to adoption, and integration challenges.
- Focus group discussions (FGDs) with smallholder representatives to capture collective perceptions and experiences.
- Document analysis, including policy documents, financial reporting guidelines, and digital accounting implementation reports, to triangulate interview findings.

Data Analysis

Data will be analyzed using thematic analysis. Interview transcripts, focus group notes, and documents will be coded inductively and deductively, guided by the research questions. Coding will be supported by qualitative analysis software (e.g., NVivo or Atlas.ti). Themes will be generated to capture patterns across stakeholder perspectives, with attention to similarities and divergences among groups.

The analysis will follow these steps:

- Transcription and familiarization with the data.
- Initial coding of meaningful units.
- Categorization of codes into broader themes.
- Comparison across stakeholder groups to identify convergences and contradictions.
- Development of an interpretive narrative linking themes to theoretical and practical implications.

Trustworthiness

To ensure rigor, the study will apply the criteria of credibility, transferability, dependability, and confirmability:

- Credibility through triangulation of interviews, FGDs, and document analysis.
- Member checking by sharing preliminary findings with selected participants for validation.
- Dependability by maintaining an audit trail of research decisions and coding processes.
- Transferability by providing thick descriptions of the research context and participants.

Ethical Considerations

Ethical approval will be sought from the relevant institutional review board. Participants will be informed about the purpose of the study, and informed consent will be obtained prior to participation. Anonymity and confidentiality will be strictly maintained, with pseudonyms used in reporting findings.

RESULTS AND DISCUSSION

Banking Support as a Critical Enabler of Digital Accounting Adoption

Across stakeholders, banking institutions were consistently identified as key enablers in promoting digital accounting adoption. Palm oil enterprises and smallholder cooperatives noted that loan applications increasingly required standardized financial statements, which encouraged them to adopt digital systems. Bank officers confirmed this, stating that digital records improved transparency and reduced the perceived risk of lending to agribusiness firms.

This finding aligns with prior literature that positions banks not only as financial intermediaries but also as institutional actors shaping reporting practices. By embedding digital requirements in loan assessments, banks indirectly accelerate the digitalization of accounting in palm oil enterprises. However, this influence can be both enabling and restrictive, depending on the flexibility of banks in accommodating smallholders with limited digital literacy.

Divergent Stakeholder Perceptions of Digital Accounting Benefits

Palm oil companies perceived digital accounting systems as tools for improving internal efficiency, compliance, and external credibility with financiers and international buyers. In contrast, smallholder cooperatives viewed these systems primarily as administrative burdens imposed by banks or certification schemes. Regulators and NGOs emphasized their potential for enhancing traceability and sustainability reporting.

The divergence highlights a perception gap. Larger firms see digital accounting as value-adding, while smallholders often see it as externally imposed. This echoes the stakeholder theory perspective, which argues that organizations respond differently to institutional pressures depending on their resource base. Bridging these divergent views requires capacity-building initiatives and simplified digital tools tailored to smallholders.

Barriers to Integration of Digital Accounting and Banking Services

Participants identified several challenges:

- Limited digital literacy among smallholder cooperatives.
- High cost of digital systems for smaller enterprises.
- Lack of interoperability between accounting software and banking platforms.
- Data security concerns, particularly regarding sensitive financial records shared with banks.

These barriers reflect structural and technical gaps that hinder seamless integration. The finding reinforces earlier studies on digital adoption in agriculture, which note that infrastructure and literacy remain persistent obstacles. For palm oil, the issue is compounded by the fragmented structure of the sector, where thousands of smallholders may lack access to affordable digital solutions. Banks' reluctance to adapt their platforms to such realities exacerbates the gap.

Trust and Institutional Relationships as Determinants of Adoption

Trust emerged as a recurring theme. Smallholder representatives expressed concerns that banks might misuse financial data, while some company accountants doubted the confidentiality of cloud-based systems. Conversely, bank officers emphasized that transparent, auditable records were essential for reducing lending risk.

The role of trust illustrates the socio-institutional nature of digital accounting adoption. Adoption is not purely a technical decision but is embedded in relationships between enterprises, banks, and regulators. This supports institutional theory, which suggests that legitimacy and trust shape organizational responses to new practices. Building mutual trust, through data governance frameworks, training, and transparent communication, appears critical for sustainable adoption.

Emerging Opportunities for Multi-Stakeholder Collaboration

Despite challenges, stakeholders identified opportunities:

- Banks collaborating with NGOs and cooperatives to train smallholders.
- Regulators incentivizing digital adoption through compliance credits or subsidies.
- Technology providers partnering with financial institutions to design integrated platforms tailored for the palm oil sector.

These opportunities underscore the potential of multi-stakeholder approaches. Collaborative initiatives could lower costs, enhance literacy, and harmonize reporting standards. This echoes global calls for digital ecosystems in agriculture, where technology adoption is most effective when financial institutions, governments, and industry actors co-create solutions.

CONCLUSION

Conclusion

This study explored how diverse stakeholders perceive the role of banking support in digital accounting adoption within the palm oil industry. The findings reveal that banks are not merely providers of financial capital but also act as institutional gatekeepers that shape reporting practices and encourage digital transformation. Larger enterprises view digital accounting as a strategic tool for efficiency and compliance, while smallholders often see it as a burdensome requirement. Barriers such as limited digital literacy, cost, interoperability issues, and trust

concerns persist, yet opportunities for multi-stakeholder collaboration provide pathways toward more inclusive digital transformation.

Implications

Theoretical Implications. The study enriches stakeholder theory by demonstrating how banking institutions influence technological adoption differently across groups with unequal resources. It extends institutional theory by showing that trust and legitimacy concerns are as critical as technical capabilities in shaping digital adoption in agribusiness.

Practical Implications. For banks: Integrating training and simplified reporting requirements can expand financial inclusion for smallholders. For palm oil enterprises: Digital accounting adoption enhances transparency, which strengthens credibility with both banks and international buyers. For policymakers/regulators: Policies that subsidize digital systems or mandate interoperability standards can reduce adoption barriers. For NGOs/technology providers: Partnerships with banks and cooperatives can accelerate capacity building and create user-friendly solutions tailored to rural contexts.

Limitations

The study relied on a purposive sample limited to selected regions and stakeholders, which may not fully represent all palm oil contexts. The qualitative design emphasizes depth over breadth, limiting generalizability of findings. Access constraints meant that some banking institutions and large corporations were underrepresented. The study captured perspectives at a single point in time, which may not reflect evolving policies or technological changes.

Recommendations

Strengthen capacity-building programs targeting smallholder cooperatives to improve digital literacy and confidence in accounting systems. Develop integrated digital platforms that allow interoperability between accounting software and banking systems, supported by regulatory frameworks. Enhance trust mechanisms, such as transparent data governance policies and clear communication between banks and enterprises, to reduce skepticism about data use. Encourage multi-stakeholder initiatives, bringing together banks, regulators, cooperatives, and technology providers to co-create scalable solutions.

Future Research

Conduct comparative studies across regions or countries to examine how regulatory environments shape banking support and digital adoption. Explore longitudinal research designs to track how stakeholder perceptions evolve as digital systems mature. Investigate the role of fintech innovations (e.g., mobile banking, blockchain-based ledgers) in bridging gaps between smallholders and financial institutions. Apply mixed-method approaches to quantify the impact of digital accounting on financial inclusion, sustainability reporting, and firm performance. Examine gender and generational dimensions in smallholder cooperatives to see how adoption dynamics differ among user groups.

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