International Review of Practical Innovation, Technology and Green Energy (IRPITAGE) | ISSN (e): 2808-8611
Volume 6 No. 2 (2026)

GUIDANCE ON THE IMPLEMENTATION OF DIGITAL PLATFORM-BASED SHARIA ACCOUNTING IN CALIFORNIA PAPAYA FARMING BUSINESS TO IMPROVE FINANCIAL ACCOUNTABILITY AND ECONOMIC INDEPENDENCE IN PASIR MATOGU VILLAGE, MUARATAIS DISTRICT, SOUTH TAPANULI REGENCY

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Received: 11/08/2026 | **Revised:** 20/08/2026 | **Accepted:** 15/09/2026 | **Published:** 30/09/2026

Abstract

Papaya California agriculture serves as a highly lucrative sector in the rural economy due to its continuous harvesting cycle. However, smallholder farmers in Pasir Matogu Village, Muaratais District, South Tapanuli Regency, consistently grapple with systemic vulnerabilities in financial management and severe capital limitations due to an over-reliance on limited government fertilizer subsidies. This community service to society (PKM) program delivers an institutional solution by implementing digital platform-based Sharia accounting and business proposal formulation for California papaya farmer groups in Pasir Matogu Village. Utilizing a highly participatory and continuous mentoring methodology, the intervention structured five strategic phases: baseline observation, mindset transformation, digital accounting application training, professional business proposal coaching, and evaluation. The empirical outcomes demonstrate a profound paradigm shift among participants. Farmers successfully established strict boundaries between papaya business cash and domestic savings, digitized daily transactions, and utilized accurate financial ledgers to construct bankable farmer group business proposals. This empowerment enabled the farmer groups to expand beyond standard government fertilizer assistance and actively pitch for external formal capital injection. Financial accountability significantly improved, mitigating transparency conflicts regarding shared costs and substantially strengthening the farmers' institutional capacity for long-term village economic autonomy in Pasir Matogu Village, Muaratais District, South Tapanuli Regency.

Keywords: Sharia Accounting, Digital Platform, California Papaya, Business Proposal, Capital Injection, Pasir Matogu Village, South Tapanuli

INTRODUCTION

The agricultural sector is a fundamental pillar of the Indonesian economy, acting as the largest labor absorber in rural areas and a safety valve for national food security (Munthe et al., 2023). This sector's contribution is significant to the distribution of income among lower-income communities and the creation of regional economic stability (Munthe et al., 2023). However, most small-scale farmers still face complex operational challenges, limited access to formal financial institutions, and fundamental managerial governance constraints (Yolanda, 2024). One of the most crucial weaknesses inherent in traditional farming is its low market orientation and weak competitiveness due to unstructured financial management (Toisuta, 2012). Therefore, inclusive and sustainable capacity-building policies are needed to transform farming businesses to become strongly competitive in the modern economic landscape (Yolanda, 2024).

In Pasir Matogu Village, Muaratais District, South Tapanuli Regency, horticultural commodities such as California papaya (Carica papaya L.) have very high economic potential due to their long productivity period and weekly harvest frequency. However, this great potential has not been able to provide optimal welfare for local farmers due to poor cash flow management and limited capital. A classic problem that continues to recur in the field is the phenomenon where farmers feel confused because the money from the sale of weekly harvests seems to "disappear" without a trace. This condition is triggered by three main habits: (1) mixing papaya farming cash with household cash in total, (2) ignoring small-scale but routine operational costs such as purchasing additional fertilizers,

pesticides, fruit wrapping materials , logistics transportation gasoline, and daily picking labor wages, and (3) the tendency to only record weekly gross sales turnover without evaluating the burden of initial investment costs such as the procurement of superior California seeds and the installation of plastic mulch. Limited financial literacy and the absence of a valid bookkeeping record ultimately led to a more serious macro problem in Pasir Matogu Village: the acute dependence of farmer groups on passive stimulus assistance, such as subsidized fertilizer allocation quotas from the government. However, the volume of subsidized fertilizer is often scarce or insufficient to meet the actual needs of California papaya generative phase land, which requires intensive nutrient supply. Furthermore, farmer groups are unable to apply for larger capital injections from banks, Islamic financial institutions, or private sector Corporate Social Responsibility (CSR) partnership funds. The main obstacles to this denial of capital access are the inability of farmer groups to present accountable historical cash flow reports and the lack of a bankable business proposal (Damayanti, 2025).

Theoretically, failure to improve financial governance at the rural micro-enterprise level often stems from low levels of financial literacy and a lack of understanding of operational risk management (Damayanti, 2025). Many informal sector entrepreneurs assume that accounting records are merely a time-consuming administrative formality required only by large corporations. However, without clear financial data visualization, entrepreneurs will never be able to detect economic disincentives or cost overruns in the crop care chain (Fuadi et al., 2021). As a result, capital allocation becomes inefficient, and farming businesses remain trapped in a stagnant subsistence cycle with no room for long-term capital accumulation.

In the sociological context of agrarian communities, this financial vulnerability is exacerbated by the intense pressure to meet urgent domestic needs, so that the cash from the papaya harvest, which circulates rapidly each week, is often used as a non-productive emergency fund (Sarfiah et al., 2019). When farmers lack a clear delineation between working capital and living expenses, they tend to experience a gross revenue illusion because they feel they always have cash on hand each week. Farmers forget about the obligation to set aside capital for plant maintenance during the generative phase, purchasing micro NPK fertilizer, and preparing for replanting unproductive plants. This fluctuating, instinct-based management pattern ultimately undermines the economic stability of farming households when faced with the risk of fluctuating fruit prices at the middleman level or plant pest and disease attacks.

Therefore, community service interventions should not only address the mechanical aspects of application introduction, but also address the restructuring of economic behavior through a value approach inherent in society (Kurniawan & Alhifni, 2022). The application of Islamic accounting values offers a strong ethical framework because it transforms financial record-keeping from a mere technical obligation to a manifestation of trust and moral responsibility (Satria et al., 2025). When the principles of transparency and fairness are integrated with the practicality of digital financial platforms, farmers' psychological barriers to the complexity of accounting formulas can be significantly reduced. This integration is crucial for building independent economic resilience, where every tactical agricultural decision is based on honest, valid, and openly accountable data (Wijana, 2024).

To address these issues, the Community Service (PKM) program is designed to provide concrete solutions through mentoring in the implementation of digital platform-based Sharia accounting and the preparation of farmer group business proposals. The program, implemented in Pasir Matogu Village, Muaratais District, South Tapanuli Regency, utilizes neat digital cash records as the primary tool in developing credible group business proposals. The long-term goal of this community service program is to transform the bargaining position and institutional capacity of farmer groups, empowering them with the courage and financial legitimacy to submit independent proposals for external investment funding, rather than passively awaiting the distribution of conventional subsidized fertilizer quotas.

LITERATURE REVIEW

1. Community Empowerment and Business Independence

Community empowerment through ongoing training and mentoring programs has been empirically proven to increase the capacity, independence, and competitiveness of micro-entrepreneurs in various regions. Training focused on management strategies and strengthening business image directly contributes to increased sales volume growth (Liena Prajogi, 2024). Program interventions based on optimizing local assets have proven effective in increasing business management literacy, expanding market penetration, and driving the economy in rural areas (Satria et al., 2025). Entrepreneur independence can be accelerated through the implementation of andragogy (adult learning) methods combined with direct work experience in the field (A. Kurniawan & Anas Alhifni, 2022). A key factor in the success of this long-term empowerment program lies in the strong synergy between the academic sector,

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professional practitioners, local governments, and the active participation of the partner community itself (Liena Prajogi, 2024).

2. Access to Financial Institution Capital and the Role of Business Proposals

One of the biggest stumbling blocks in the escalation of smallholder agricultural businesses is the phenomenon of capital constraints, or limited access to capital due to information asymmetry between farmers and formal banking (Yolanda, 2024). Farmer group business proposals act as strategic communication instruments, presenting feasibility analyses, cash flow projections, Return on Investment (ROI) calculations, and crop cultivation risk management (Winduro et al., 2025). Farmer groups that can present structured business plans with sound accounting data attachments have a much higher chance of obtaining productive financing from banking institutions or Islamic venture capital, which radically frees farmers from the limitations of a single subsidy scheme.

3. Sharia Accounting as a Foundation for Business Ethics

Sharia accounting is a financial recording system that focuses not only on material results but also places divine values and the welfare of the community as its primary foundation (Kurniawan & Alhifni, 2022). The implementation of Sharia accounting requires the upholding of four ethical principles in daily business conduct:

a. Honesty: Prohibition on manipulating numbers or hiding financial transactions.
b. Trust: Having full responsibility in managing business funds, especially those involving group capital or third party investment cooperation.
c. Transparent: Ensuring that all financial records are open, objective, and can be periodically checked for accuracy by interested parties.
d. Fair: Ensure that the rights and obligations of each group member or cooperation partner are distributed proportionally and clearly written to avoid social conflict.

4. Digital Platforms and Strengthening Rural Digital Literacy

The adoption of digital platform-based information technology in the micro-business ecosystem can impact up to 78% of marketing competitive advantage and internal management efficiency (Mavilinda et al., 2021). Digital transformation has transformed transaction procedures into more practical virtual spaces without the barriers of physical buildings (Arifianto et al., 2020). For rural communities, digital literacy training is not only directed at mastering basic computer skills but also includes skills in evaluating financial information, managing digital transactions securely, and upholding digital business ethics (Wijana, 2024). The use of digital bookkeeping applications (such as BukuWarung, Majo, Excel Mobile, and Google Sheets) provides a bridge for farmers to migrate from conventional, error-prone recording systems to a neat, automated, and accurate financial database system (Prihatiningtyas et al., 2024).

METHOD

1. Activity Approach

The implementation method used in this community service program is an active participatory approach based on continuous mentoring (Continuous Mentoring Approach). Through this approach, target partners are not positioned as passive recipients of materials, but are actively involved as the main subjects from the initial stages of problem identification, designing the California papaya financial simulation, implementing daily digital practices, to the workshop for drafting the joint capital proposal.

2. Location and Target Target

The Community Service Program (PKM) is being intensively implemented in Pasir Matogu Village, Muaratais District, South Tapanuli Regency, North Sumatra. The program's primary targets are independent farmers and California papaya farmer group administrators in Pasir Matogu Village who are strongly committed to improving their financial administration and intend to apply for external business capital.

3. Program Implementation Stages

The series of program implementation methods is divided into five measurable strategic stages as follows:

1) Initial Observation and Problem Mapping (Baseline Assessment):
Conducting an initial field visit on Sunday, August 16, 2026 to map the daily/weekly cash flow of papaya farmers in Pasir Matogu Village, analyzing initial seed capital, coordinating with village officials, and mapping the group's capital history.

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Figure 1. Coordination between the service to society team and village officials at the Pasir Matogu Village Office

2) Socialization of Mindset Shifting :
   Holding an educational forum on the urgency of separating farm business money from family domestic money and internalizing the principles of honesty, trustworthiness, transparency, and fairness in managing farmer group capital to build a bankable financial profile.
3) Digital Financial Platform Technical Training (Digital Accounting Training): Conducting an interactive workshop on operating an Android-based financial recording application on each farmer's device. The material focused on introducing weekly harvest income and periodic fertilizer expenditures.
4) Workshop and Coaching Clinic for Preparing Business Proposals (Business Proposal Coaching):
   Intensively mentored farmer group administrators in Pasir Matogu Village in preparing a feasibility business proposal for a California papaya plantation. Data from the digital cash application was integrated as an attachment to the proposal's financial analysis.
5) Impact Monitoring and Evaluation (Monitoring & Evaluation):
   Assess the level of partners' understanding regarding the structure of business proposals, the ease of operating digital cash books, and accompany the process of finalizing group proposals so they are ready to be submitted to funding institutions.

RESULTS AND DISCUSSION

Result

The implementation of the digital-based sharia accounting mentoring program and the preparation of this capital proposal has resulted in a real transformation in the managerial competency and financial accountability aspects of target partners in Pasir Matogu Village, Muaratais District, South Tapanuli Regency, which culminated in the agenda of material presentation and targeted training on Saturday and Sunday, August 22–23, 2026:

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Figure 2. Presentation of Material on Implementation of Sharia Accounting Digital Platform Based by Resource Person



Figure 3. Farmer Group Participants Participating in a Slide Visualization-Based Presentation Session

1) Increasing Awareness of Sharia Accounting Principles:
   Farmer partners experienced an increased theoretical and practical understanding of the importance of clean bookkeeping. Farmers realized that the lack of honest and transparent financial records was a major source of capital leakage, hindering the growth of California papaya farming businesses.
2) Cash Flow Separation Habituation (Wallet Separation):
   The most fundamental success of this program is the elimination of the habit of mixing business capital with household spending money. Farmers now clearly divide cash flow into two separate accounts: cash for papaya farming operations and cash for household consumption. Costs for organic fertilizer, pesticides, duct tape, newspaper for fruit wrapping, and labor wages are taken entirely from the business cash flow.
3) Digitizing Cash Books on Gadgets (Smartphones):
   Farmers' smartphones have been successfully optimized as digital financial assistants. Using apps like Google Sheets mobile or BukuWarung, farmers in Pasir Matogu Village can input transaction amounts directly in the field immediately after the middleman weighs the fruit. This eliminates the risk of losing records of small transactions.
4) Preparation of a Simple Profit and Loss Report (Remaining Operating Result):

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Through daily bookkeeping challenges provided during the mentoring period, farmer partners independently aggregated weekly transaction data into valid monthly profit and loss reports. The following is aggregated financial bookkeeping data from representatives of the California papaya farmer group partners:

5) Preparation of Credible Farmer Group Business Proposal Documents:
As a result of the proposal workshop, the management of the California papaya farmer group in Pasir Matogu Village successfully compiled a comprehensive business development plan proposal. Unlike conventional, narrative-subjective proposals, this proposal integrated real and objective financial data sourced directly from the farmer group's daily/weekly digital cash recapitulation. The proposal document included a land investment feasibility structure, long-term harvest capacity estimates, a Break Even Point (BEP) analysis, and a plan for allocating external capital injections. This significantly increased the farmer group's bankability in the eyes of potential investors or financial institutions.





Figure 4. Photo Session with the service to society Implementation Team, Students, and the Core Management of the Farmer Group in the Village Hall

6) Paradigm Shift from Passive-Subsidy to Proactive-Investment: This mentoring intervention triggered a strong psychosocial paradigm shift among the farmers assisted in Pasir Matogu Village, Muaratais District. The farmer group now has the motivation and collective awareness to free itself from narrow dependence on subsidized fertilizer quotas from government agencies with limited allocations. By having a formal and credible business proposal, the farmer group began to actively design an agenda for submitting working capital financing to external commercial funding institutions and Islamic financing institutions to realize the expansion of the area of cultivated land for California papaya.

Discussion

The implementation of digital-based sharia accounting and the preparation of business proposals have had a profound psychological and sociological impact on strengthening the institutional structure of California papaya farmers in Pasir Matogu Village, South Tapanuli Regency. From an internal farmer group perspective, financial transparency established through an open digital ledger has proven effective in reducing suspicion among members regarding the allocation of operational funds for shared pick-up transportation to the main market. Every expenditure on group activities can be tracked in real time by all members, thereby increasing mutual trust (social trust), which is the main capital for strengthening the Poktan institution when formulating a long-term vision in the farmer business proposal document.



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Figure 5. Direct Monitoring of California Papaya Plantations Owned by Residents

However, the transformation process from manual to digital systems is not without technical obstacles that require strategic adaptations. Based on field evaluations, three main obstacles were identified during the implementation of the mentoring:

1. Device Specification Limitations:
   Not all farmers have smartphones with sufficient memory to run demanding financial applications. The solution is to direct mentoring using lightweight Google Sheets -based templates or centralized record-keeping on group administrators' devices.
2. Farmers' Lack of Skills Using Digital Platforms:
   Age and professional background factors mean that most farmers in Pasir Matogu Village are still unfamiliar with and lack the skills to operate digital bookkeeping applications, which they consider unfamiliar. This technological gap (gaptek) issue was addressed tactically by the PKM team through personalized coaching clinics, the creation of concise visual guides (simplified user interfaces), and the active involvement of KKN students to intensively mentor farmers step -by-step until they become proficient.
3. Habitual Consistency:
   Changing the habit of never recording to mandatory weekly post-harvest records requires a high degree of mental resilience. This obstacle was overcome by implementing a weekly evaluation system at the farmer group level so that members could remind each other and review evidence of transactions during the farmer group's social gatherings.

At a macro level, the implications of the success of this program of neat financial records and ownership of validated business proposals linearly boost farmers' bargaining position vis-à-vis formal financial institutions and the modern retail industry supply chain. Farmer groups in Pasir Matogu Village with measurable financial track records and well-thought-out business plan proposals have a much greater opportunity to gain access to collateral-free sharia-compliant working capital financing for the expansion of their California papaya plantations. From a simple digital ledger and the development of a draft group business proposal, this integration moves systematically toward strengthening the added value of local fruit agricultural products, streamlining market distribution, and creating a strong village economic independence free from the shackles of dependence on a single subsidy.

CONCLUSION

This community service program concluded that the implementation of sharia accounting can be applied simply without complicating horticultural commodities and can be accelerated as a basis for creating instruments for expanding group businesses. Through an adaptive digital platform approach, California papaya farmers in Pasir Matogu Village, Muaratais District, South Tapanuli Regency have successfully transformed their financial management paradigm to become more accountable, honest, trustworthy, and transparent. The digitization of smartphone-based cash books has been empirically proven to help farmer groups detect weekly operational budget leaks while providing a solid and bankable financial database. This valid digital cash flow data has been successfully transformed into a fundamental attachment in the preparation of a credible farmer group business proposal. The successful preparation of this group business proposal ultimately opens the door to independence for farmers to proactively seek capital injections from external commercial financial institutions, expand the economic scale of cultivation, and free themselves from acute dependence on government fertilizer subsidy programs to realize sustainable rural economic sovereignty.

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