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Exploring the Knowledge Gap and Implementation Challenges of Management Accounting Practices among the Farmer Business Groups within the Tanzanian Cocoa Sub-sector

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Abstract

Studies have shown that knowledge and implementation of accounting practices, particularly management accounting (MA), pose significant challenges for small businesses in general, with limited attention given to small agribusiness groups. This study specifically explored knowledge gaps and challenges related to the implementation of MA practices among cocoa farmer business groups (FBGs) in Tanzania. Primary data were collected from 87 cocoa FBGs operating in the Kyela, Rungwe, and Kilombero districts, using a mixed research design. Qualitative data were analyzed through thematic analysis, while quantitative data were examined using one-way analysis of variance (ANOVA), supplemented by Tukey's range and Dunnett's tests. The findings revealed that Tanzanian cocoa FBGs possessed limited knowledge of MA practices. This condition, combined with a lack of awareness, unstructured business operations, financial constraints, and insufficient readiness among leaders, hindered effective implementation. These results highlight the critical need for FBG management to strengthen their knowledge of MA practices. Improving cocoa agribusiness structures and securing financing for operations, including the adoption of advanced accounting systems, are essential steps forward. Moreover, FBG leaders must be persuaded of the importance of MA practices in daily operations to foster willingness to adopt such systems.

Keywords: cocoa agribusiness; farmer business groups; implementation challenges; knowledge; management accounting practices;

INTRODUCTION

Management accounting (MA) plays a crucial role in various aspects of daily business conduct ranging from budgeting, cost control, performance measurement to decision appraisal (Ruiz & Collazzo, 2021). These managerial practices not only ensure business sustainability but also drive agricultural firms to acquire the competitive advantages over rivals (Namazi & Rezaei, 2024). A systematic literature review revealed that MA practices are not only lower but also different in small and medium enterprises (SMEs) compared to larger entities (Ylä-Kujala et al., 2023). The situation is even worse in small scale agribusiness among the SMEs, where smallholder farmers are said to lack elementary accounting skills for farm management (Poppe et al., 2023). In large extent, the poor

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performance of these agribusinesses around the globe particularly in developing countries is associated with unsound financial management which is greatly attributed to effect of improper accounting (Gyamera et al., 2023).

Tanzania in particular, despite the growing importance of agricultural sector, farmer business groups (FBGs) engaged in cocoa farming among other agri-SMEs face significant challenges in implementing effective MA practices (Mang'ana et al., 2024). The study among few others did not go further into exploring the factors behind a scant implementation status of MA practices by such agri-SMEs particularly the cocoa FBGs. To narrow down this gap, this study firstly assessed the knowledge gap among cocoa FBGs on specific areas of MA practices as recommended earlier by Malauri et al., (2022). It then went further to explore the specific factors behind the limited implementation of MA practices among the cocoa FBGs in Tanzanian context. The choice for cocoa sub-sector as a case in this study was backed by a fact that, it was the fastest growing agribusiness sector in the country in terms of exports and general favourable market terms to growers (Lwesya, 2025; Molela, 2017).

As per the recommendation by Ankrah et al. (2022), this study assessed the FBGs' knowledge on budgeting as one of the MA practices that agri-SMEs need to take into account from farming to selling stage. Another area of concern that this study tried to explore the FBGs' knowledge was the cost control, which as in accordance to Brenya et al. (2023) defines their financial sustainability. More importantly, smallholder farmers are required to have basic knowledge on performance measurement where different techniques may be employed to measure agribusiness performance including economic benefits and technical efficiency (Mariyono, 2020). The circle of management accounting practices culminates with the decision analysis, where agri-SMEs need to evaluate the entire financial performance and make proper decision accordingly (Mang'ana et al., 2023).

Understanding the experiences of Tanzanian cocoa producers in management accounting practices was of paramount importance of knowing where to intervene to improve the sub-sector's performance. Likewise, the success stories could be shared among other agri-SMEs in the country and elsewhere in developing economies to serve the purpose of developing the agri-SMEs into becoming the hubs of food security in the globe (Ortiz-Miranda et al., 2022).

THEORETICAL LITERATURE REVIEW

Conceptual Definition of Cocoa Farmer Business Group (FBGs)

As a collective effort, smallholder cocoa farmers in Kyela, Rungwe and Kilombero form small groups going with the name farmer business groups (FBGs) that are comprised of 2 to 50 members living in close proximity (Molela, 2017). The main aim of their establishment is to collectively process wet cocoa of its members and sell dry cocoa in bulk either directly or through AMCOS. These farmer groups are considered to be an integral associations for smallholder cocoa farmers, for they enhance the farmers' bargaining power, hence help to increase their economic status (Kuzilwa & Mpeta, 2017).

FBGs offer a range of services aimed at enhancing individual cocoa farmers' voice in terms of

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prices and market reliability (Molela, 2025). Generally, FBGs have a relatively low startup cost, making them accessible for voiceless smallholder cocoa farmers with little harvests (Esther et al., 2025). There are currently more than 150 FBGs across Tanzania mainland with only 87 being active because of the valid registrations at their respective district councils (National Bureau of Statistics [NBS], 2024). It is the requirement by law for FBGs to have licensing and proper training to ensure that they meet industry standards and can provide quality services to clients who are smallholder cocoa farmers in this case (Adams et al., 2024). The choice to deal with FBGs in this study rather than individual cocoa farmers was driven by the prevailed trading arrangement of collective selling as communicated earlier by Molela (2017) and Kuzilwa & Mpeta (2017).

Diffusion of Innovation (DOI) Theory

Howaldt et al. (2025) contended that, the DOI theory was promulgated by Everrett Rogers in 1962 to explain how the new ideas, innovations and practices emanate from the sources and eventually spread within a community. The theory puts down the five major factors that are of paramount importance in explaining the adoption and diffusion process including relative advantages, compatibility, complexity, trialability and observability (Overbye-Thompson & Hamilton, 2025). Singh & Strzelecki (2026) analyzed the theory by putting down three important steps in adoption in relation to such factors including knowledge gain, persuasion and adoption.

The theory is relevant to this study based on the importance of knowledge as one of the elements used in explaining the adoption and implementation of the system as recommended by Howaldt et al. (2025). Lund (2025) put it clear that, interest in innovation and a subsequent adoption must be preceded with the users' knowledge which is acquired through either the observation, trialability or learning. However, the knowledge alone cannot provide a complete answer on the adoption and implementation of MA practices by cocoa FBGs, hence UTAUT theory was added further to provide more explanations.

Unified Theory of Acceptance and Use of Technology (UTAUT)

UTAUT is the merger of two previous widely used theories including technology acceptance model (TAM) and theory of planned behavior (TPB) (Al-Mamary et al., 2024; Venkatesh et al., 2016). According to Venkatesh et al. (2016) who are credited as the proponents, the theory is defined by four elements as the determinants of technology acceptance and implementation including performance acceptance, effort acceptance, social influence and enabling conditions. These elements are relevant to MA adoption and implementation by smallholder cocoa farmers in the context that, smallholder farmers have limited resources both finance and materials (Molela, 2025). The fact that, the adoption and eventual successful implementation of accounting systems depend highly on external forces through training, motivation and financial support makes the theory being the most relevant in assessing challenges faced by cocoa FBGs in MA implementation (Utaminingsih et al., 2024).

According to Al-Okaily et al. (2023) performance acceptance model defines such variables as

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awareness and knowledge on MA by farmers which are among the variables under investigation in this study. The same applies to effort acceptance, where FBGs leaders are compelled to set aside budget for acquisition of the systems and its eventual maintenance. This also goes hand in hand with facilitation to attend relevant training and workshops to acquire required knowledge for effective systems implementation (Al-Okaily et al., 2023). Social influence shapes how the farmers interpret and perceive the benefits of accounting systems in their business operations (Nguyen et al., 2023). More importantly, cooperative societies and policy makers play a significant role in creating an enabling environment for the smooth implementation of accounting systems, including the provision of relevant training, facilitation of proper infrastructure, and offering the needed resources (Li et al., 2024).

Knowledge of MA Practices among the Tanzanian Cocoa Farmers

García-Cornejo et al. (2025) conducted a study on the farmers' knowledge on MA with more focus on dairy and beef farming. The study conducted a meta-analysis by populating data from different previous studies and revealed a moderate knowledge. Likewise, Gottlieb and Hansson (2024) conducted similar study of investigating the Swedish farmers' knowledge on financial literacy by focusing more on MA. The study revealed high levels of knowledge as previously reported in the Swedish Farm Accountancy Data Network farmers. All these studies however, dealt very scant with smallholder farmers leave alone small cocoa producers, hence leaving a gap to conduct research on investigating the smallholder farmers' knowledge on MA in Tanzania in particular.

Every business of all kinds around the globe emphasizes accounting as an essential tool in making business enterprises succeed or fail because it helps the firms to analyze profitability and manage costs effectively (Mahlendorf et al., 2023). There are different practices to be considered in MA implementation by cocoa FBGs in particular including budgeting, planning, cost management, capital structure and cashflow analysis (Ankrah et al., 2022; Brenya et al., 2023). These elements all together are vital tool for generating valuable information in decision-making (Chang et al., 2023). Decision can be made to adjust the activities to reduce the cost of their operations and improve their productivity if they effectively follow the accounting protocols in the implementation of each MA practice (Chang et al., 2023). These were further proved in the recent study of Zaitsev (2023) that MA implementation and the sustainability of small businesses of all kinds have a significant relationship. To assess the cocoa farmers' knowledge of MA practices in such areas suggested by previous studies, the following research questions were asked.

Question 1: How do FBGs prepare and monitor cocoa farm budget during a season in Tanzania?

Question 2: How far ahead do FBGs plan for cocoa aggregation exercise and sales in Tanzania?

Question 3: How do FBGs track and record the costs of operations in Tanzanian cocoa agribusiness?

Question 4: How do FBGs decide between using members' personal savings, group funds, or external loans in Tanzania?

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Question 5: How do FBGs monitor the inflow and outflow of cash in the entire chain of Tanzanian cocoa agribusiness?

Implementation Challenges of MA Practices in Tanzanian Cocoa Farming Agribusiness

Profitability is a key indicator of success in the FBGs' operations (Grzelak & Staniszewski, 2025). It reflects the business's ability to generate income, manage expenses effectively and provide services that attract and retain members (Donkor et al., 2023). In which in order to achieve such goal, cocoa FBGs like any other agribusiness firms are obliged to adopt and effectively implement MA practices among other accounting systems (Namazi & Rezaei, 2024). Proper implementation of MA improves budgeting and planning, track revenue, manage expenses, assess the return on funds committed to cocoa business as well as ensures financial transparency (Raspati & Simanjuntak, 2024). This information enables FBGs to make informed decisions, identify areas for cost-saving and optimize their cocoa business operations for greater profitability (Ruiz & Collazzo, 2021). Furthermore, precise implementation of MA aid in analyzing the market trends, allowing FBGs to tailor their services and marketing strategies (Adha et al., 2024). Overall, meticulous implementation of MA is a cornerstone for sound financial management and cost control in small agribusinesses (Ruiz & Collazzo, 2021).

Several studies were conducted to assess the factors that drive the implementation of MA by small and medium enterprises (SMEs) where cocoa FBGs are amongst including Cele et al. (2022). It was revealed that, limited access to international markets, inflation rate, interest rate and production locations were the major implementation challenges that faced SMEs. Mang'ana et al. (2024) explored the extent of implementation of financial management among the agri-SMEs in general without specifically targeting a particular agribusiness sub-sector. The study revealed a correlation between limited knowledge and scant implementations of financial management by the Tanzanian agribusinesses. All these previous studies did not exhaustively excavate the statuses and challenges associated with the implementation of MA practices by the smallholder cocoa farmers but rather in general way. To narrow down this research gap, this study tested the six hypotheses as summarized in Figure 1.

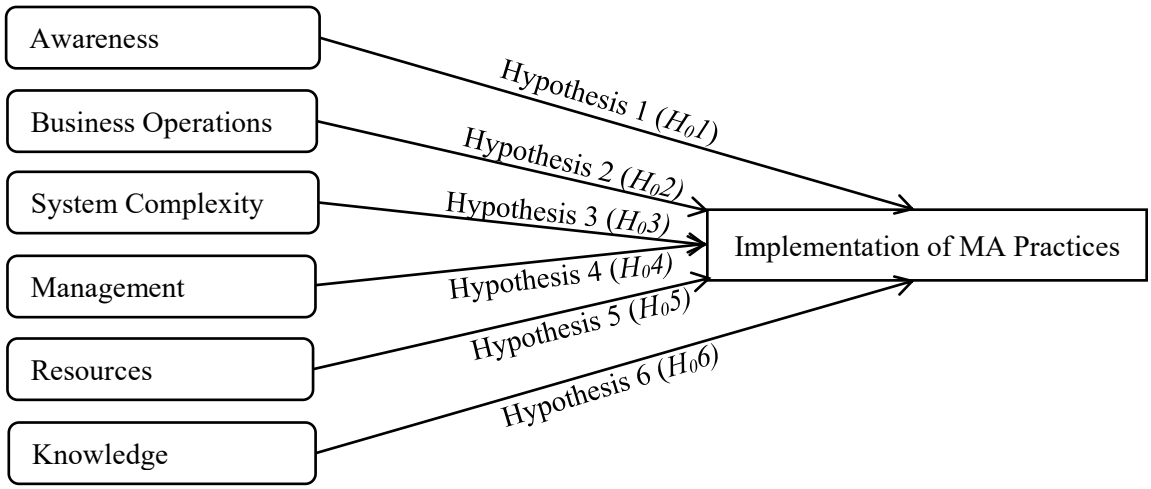

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Figure 1. Conceptual Framework

Source: Author (2025)

Testing of the six hypotheses summarized in figure 1 was aimed at ascertaining the statistically significant effects of cocoa FBGs' awareness, business operations, system complexity, management readiness, resources and their knowledge on MA practices implementations.

RESEARCH METHODS

The study employed a mixed research design where both qualitative and quantitative approaches were used in data collection, processing, analysis and interpretation of results. According to Takona (2024), the design was appropriate for this study because of its integration of both numerical and non-numerical data in testing the hypotheses and answering the research questions respectively.

Primary data were collected using the restructured questionnaire and interview guide which were both adopted, customized, cross-checked by third parties and subsequently pre-tested before being used as recommended by Cheung (2023) and Gazaway et al. (2022). Both tools were used simultaneously to collect data in Kyela, Rungwe and Kilombero districts, Tanzania. These districts were ranked on top in terms of cocoa production in Tanzania as per the information from NBS (2024).

Qualitative data were processed and interpreted based on thematic analysis method by linking patterns to five main themes including *budgeting, planning, cost accounting, capital structure* and *cash flow knowledge*. On the other hand, quantitative data were analyzed using the Analysis of Variance (ANOVA) that was run concurrently with Tukey's range and Dunnett's tests. The motive behind the choice of the model was to confirm the statistical significance of means differences of results between and within the three groups of data collected from Kyela, Rungwe and Kilombero districts as per the recommendations by Okoye & Hosseini (2024). According to Chatzi & Doody (2023), ANOVA was the most appropriate model for this study because of its relevance in generalizing the results from the three distant districts to the entire Tanzanian population.

The units of analysis were all eighty-seven (87) active registered FBGs distributed proportionally on 5:3:2 between Kyela (*44 FBGs*), Rungwe (*26 FBGs*) and Kilombero (*17 FBGs*) districts and sampled using census sampling technique. The units of inquiry were the management of FBGs including chairpersons, managers and treasurers. These individuals were targeted because they are the ones involved in daily operations of the groups as the representatives hence, they provided relevant information as per the focus of the study. Table 1 shows a distribution of respondents between districts:

Table 1. Study Population and Sample

Details	Kyela	Rungwe	Kilombero	Total
Population	132	78	51	261
Sample	99	65	45	209

Source: NBS (2024)

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NB: Sample size was computed using Yamane Formula of 1967 below;

Sample "*n*" $= \frac{N}{1 + N(e^2)}$

Where, *N* stands for population size and;
e is the margin of error of 5%.

Test analysis using ANOVA assumed that, mean outcomes across Kyela (μ_k), Rungwe (μ_r) and Kilombero (μ_i) are the same. Null hypotheses were tested using *F*-test distribution that compares the mean squares between and mean squares within the three categories namely; Kyela, Rungwe and Kilombero. *P*-values were also based upon in drawing the conclusion as the complement to F-test results. The tested general null hypothesis (H_0) is as mathematically expressed below;

$H_0 = \mu_k = \mu_r = \mu_i$

Likewise, factor loading was conducted as the preliminary requirement of the model to confirm the associations of items with their respective constructs based on a benchmark of 0.7 score. The findings showed that, factors of all constructs loaded above 0.7 with reference made to systems awareness, hence signifying the strong associations between the items and their respective constructs.

RESULTS AND DISCUSSION

Respondent Characteristics

The descriptive statistical results revealed a number of features that characterized the study population across the three districts as summarized in Table 2.

Table 2. Descriptive Characteristics of the Population

Details	Measure	Kyela	Rungwe	Kilombero	Average
Age - Mean	Years	15.42	14.60	7.84	12.62
Size - Farmers	Members	32	27	36	32
Assets - Mean	TZS.	26,966,500	23,875,000	34,909,711	28,583,737
Turnover - Mean	TZS.	161,032,000	145,764,000	216,099,000	174,298,333

Source: Descriptive Statistical Analysis (2025)

The Tabel 2 shows that in average a single FBG was composed of 32 smallholder cocoa farmers who were the full paid-up members. As per the constitutions of farmer groups, Rwela (2023) stated that a farmer becomes a registered member after having fulfilled the mandatory joining conditions including the payments of initial subscription and the regular membership fees. With 12.62 years in operations, a single FBG was found to have the total assets amount of TZS. 28,583,737 as summarized in Table 2. The core agribusiness operation undertaken by cocoa FBGs is to process the stocks of wet cocoa aggregated from individual member farmers and subsequently sell the dry cocoa beans as reported by Molela (2017). Furthermore, it was found out that, a single FBG used to generate and average of TZS. 174,298,333 of the annual turnovers from the core agribusiness operations. These reported figures could have been higher had the management accounting practices been in place as far as Tanzanian cocoa agribusiness operations are concerned.

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Knowledge Gaps in MA Practices among Tanzanian Cocoa FBGs

The first specific objective of this study was to explore the knowledge gaps in MA practices among the Tanzanian cocoa FBGs. Table 3 summarizes the responses of FBGs with regards to knowledge on management accounting practices. Based on the responses, the level of knowledge has been categorized into three classes including "*Low*", "*Medium*" and "*High*". The classification was based solely on the themes that aligned with the pre-determined codes and patterns on responses in line with what were similarly done by Ndemewah et al. (2019) and Jakobsen (2024).

Table 3. FBGs' Knowledge on Management Accounting Practices

Research Questions	Themes (MA Practices)	Kyela District	Rungwe District	Kilombero District	Average Scores
Question 1	Budgeting	High=3	Medium=2	High=3	2.67
Question 2	Planning	Medium=2	Medium=2	Medium=2	2.00
Question 3	Cost Accounting	Low=1	Low=1	Low=1	1.00
Question 4	Capital Structure	Low=1	Low=1	Medium=2	1.33
Question 5	Cash Flow Analysis	Low=1	Low=1	Low=1	1.00
Average Scores		1.60	1.40	1.80	1.60

Source: Thematic Analysis Results (2025)

The overall findings of knowledge on MA practices among the cocoa FBG in Tanzania was 1.60 which is slightly above the "*Low* ($0<level\leq 1.5$)" and ranks at the bottom of the "*Medium* ($1.5<level\leq 2.5$). This finding is slightly consistent with the findings by McKinney (2016) who reported a low knowledge and implementation level of MA practices by cocoa farmers in Southern Belize.

Categorically, knowledge on budgeting was revealed to be relatively the highest among the Tanzanian cocoa FBGs, with the score of 2.67 ranking at the top. The findings differ with those of Kinyondo & Ntegwa (2017) who reported a low understanding of budgeting practices by smallholder farmers. The budgeting in cocoa agribusinesses in Tanzania involves the forecast of wet cocoa aggregation from member farmers, drying expenses, sales volume, unit price and administrative costs. Other budget items mentioned by FBGs include the government cess, infrastructure development and the overall operational financing arrangements.

Knowledge on planning was literally medium as revealed from themes embedded in FBGs' responses, which ranked the second in level with an average score of 2.00. The finding resembles with the one reported by Sempore et al. (2015). According to the study, seasonal plans by smallholder farmers are dramatically affected by uncertain weather conditions, hence they developed a model to help lessen the situation. Themes from FBGs' responses revealed patterns related to plans that included costs and revenues for the coming financial season. The planning in general was not effective because of poor records keeping as earlier communicated by McKinney (2016).

Furthermore, themes from cocoa FBGs' responses revealed the low level of knowledge on cost accounting and cash flow analysis practices, with each having scored a 1.00 point. The finding is

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consistent with the one reported by Demchuk et al. (2025) who testified that a continual reliance on manual costing system was a problem in the overall costing practice. It was revealed that, cocoa FBGs lacked necessary cost accounting techniques including the knowledge on direct costs and overheads. Likewise, they were not familiar with difference cost accounting techniques that are important in cost computations and price determination. On the other hand, the finding on cash flow knowledge differs with that of Ngakantsi (2022) who reported a moderate high level of understanding of cash flow by commercial farmers. Themes from cocoa FBGs' responses showed a lack of understanding of items that generate and erode cash from the operating activities, financing activities and investing activities. The knowledge on analyzing the cash inflows and making informed decisions from the matter was also found from the thematic analysis to be too low.

Lastly, the interview with FBGs revealed low knowledge on capital structure as far as cocoa agribusiness financing is concerned. As reported earlier by Molela (2017), cocoa FBGs had little knowledge on how to raise external finance as the supplement to internal finance. It was difficult to ascertain from the conversations on how and when FBGs realize a need for external finance and certainly for what purposes. Notwithstanding a score for knowledge on capital structure of 1.33 was higher than 2.00 scores on cost accounting and cash flow, it was ranked at a low level. On district-wise, it was FBGs in Kilombero that had the highest knowledge on MA practices of all with 1.80 score, while those in Rungwe scored the lowest with 1.40 score.

Challenges in Implementing MA Practices among Cocoa FBGs in Tanzania

The second specific objective of this research was to explore the challenges that smallholder cocoa FBGs encounter in implementing MA practices in their daily agribusiness operations. Using a one-way ANOVA, the effects of various factors to MA implementation were assessed by comparing mean scores between and within Kyela, Rungwe and Kilombero districts. Such factors include; awareness, business operations, system complexity, management readiness, financial constraints and knowledge. Mean scores of from the three districts were measured and subsequently compared to test the variations of effects of such factors with respect to MA implementation.

F distribution test ratio was used to compare the explained variance referred to as between-group variability against the unexplained variance referred to as within-group variability as recommended by Janczyk & Pfister (2023). Generally, the observations summarized in between-group variability and within-group variability were found to follow the F-distribution with statistically significant values of $F = 4.17$ and $p<0.001$ at a significance level of 5%. The results signify that the group means were all independent of one another in terms of variance but on the other side they differed accordingly from each other.

As recommended by Okoye & Hosseini (2024), Tukey's range and Dunnett's tests were concurrently conducted to confirm the results from ANOVA. The two tests were conducted under the

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assumptions that the three districts were independent and that data collected from each followed a normal distribution pattern as depicted by the quantile-quantile (Q-Q) plot, see Figure 2.

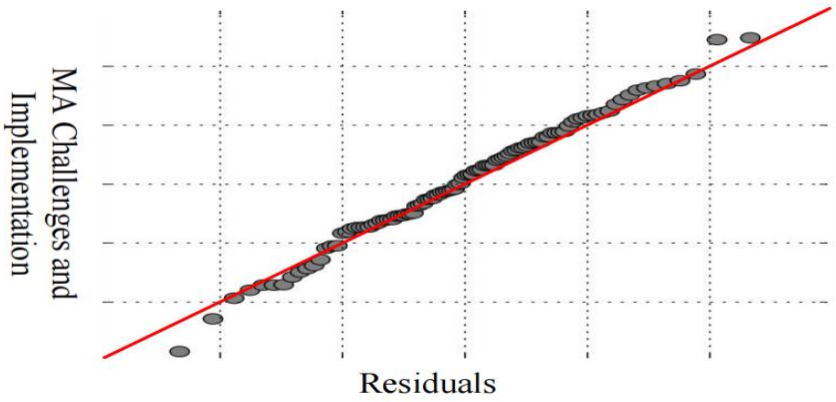

Figure 2. Normal Probability Plot of Residuals

Source: Inferential Statistical Results (2025)

Table 4 below summarizes the findings of multiple comparisons of differences between the mean variances with regards to effects of challenges on MA implementation. ANOVA inferential results revealed that, the control variable namely awareness was statistically different from other independent variables namely business operations, system complexity, management readiness, financial resources and knowledge. In this case, the awareness variable was controlled in Dunnett's test while at the same time it's effect was compared with those of other independent variables in Tukey's range test as recommended by Omari et al. (2025). The supplemental analysis was aimed at conforming the initial test results on differences of statistical significance.

Table 4. Tukey's and Dunnett's Test Results

Null Hypothesis	Variables	Tukey' Test (*p*-value)	Dunnett's Test (*p*-value)	Decision on Null Hypothesis (H_0)
H_01	Awareness	1.000*	1.000*	N/A
H_02	Business Operations	0.037	0.022	Rejected
H_03	Systems Complexity	0.009	<0.001	Rejected
H_04	Management Readiness	0.001	0.045	Rejected
H_05	Financial Resources	0.002	0.001	Rejected
H_06	Knowledge	<0.001	0.010	Rejected

Source: Inferential Statistical Results (2025)

The results from Table 4 denote that, challenges associated with business operations, systems complexity, management readiness, financial resources and knowledge hampered FBGs to implement MA practices. The findings applied equally the same in three districts as revealed from ANOVA results of F = 4.17 and p<0.001.

Generally, cocoa FBGs lacked elementary knowledge of MA practices which is crucial successful implementation of MA practices. Issues related to informal governance, poor organizational structure, limited leadership capacity and poor records keeping were among the key challenges associated with

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the business operations of FBGs. The adoption and eventual implementation of different practices of MA require compatible business operations which is enabled through good governance, formal organizational structure, good leadership and proper bookkeeping. Short of any of these elements renders the implementation exercise of MA practices by cocoa FBGs being difficult. Unreliable market was also found to impede FBGs into committing themselves in long-term business operations including adoption of standardized accounting systems (Molela, 2017). FBGs are automatically unincentivised to engage in capital budgeting because of unpredictable prices and low bargaining power in cocoa business deals.

Systems complexity also hinders the smooth implementation of MA practices by FBGs mainly due to fragmented systems, manual accounting practice and limited technical capacity among the operational staff. It was discovered that, seasonal nature of business renders it difficult to standardize accounting operations due to unpredictable fluctuations of income and expenses. Operators in FBGs lack technical skills to implement MA practices because of limited extension services, lack of proper training and limited exposure in formal accounting environment. Most of MA systems have not been customized to meet the operational needs and capacity of smallholder farmers (Namazi & Rezaei, 2024). In that case, farmer groups tend to rely heavily on manual accounting processes.

Implementation of MA practices requires ambition and willingness from leaders of farmer groups which were found lacking in this study. FBG managers are not willing to upgrade themselves for better performance of their associations hence continue to embrace traditional ways of operations including accounting practices. Being unaware of challenges related to MA implementation in cocoa agribusiness and the importance of the system itself to operational and financial performance is the clear indication of lack of management readiness to adopt the system (Ngakantsi, 2022). The adoption and eventual successful implementation of any system in improving the agribusiness operations begins with the readiness of management or leaders to champion changes. The practice goes hand in hand with staff development in specific areas of interest as well as commitment of fund for capital development.

FBGs suffer the extreme financial deficits especially during the cocoa off seasons to enable them to afford the training cost for staff and systems maintenance. This thought of financial difficulties hinders farmer groups into taking initiatives to allocate budget for systems adoption and implementation thereon. Problems associated with financial constraint include unaffordability to install the systems and develop the infrastructure that is compatible with the systems functioning. Seasonal income trend and lack of savings among FBGs have been reported as the main reasons behind the problem of financial scarcity enhance the farmers' bargaining power, hence help to increase their economic status (Kuzilwa & Mpeta, 2017).

Knowledge is measured in a number of ways including financial literacy, interpretation of financial data, perception towards the relevance of MA practices in FBGs operations (Ruiz & Collazzo, 2021). As it is presented in Table 3, personnel in FBGs had limited knowledge on different elements of MA that are relevant in cocoa agribusiness. It was discovered that, FBGs did not have structured plans for

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training and staff development in areas related to accounting operations. They neither hired individuals who are professionals in MA and other important areas of accounting. In that case, it becomes very difficult for them to find relevance of MA in their business operations.

CONCLUSION

Several challenges have been discovered to impede an adoption and eventual successful implementation of MA practices by FBGs in Tanzania including unstructured business operations, systems complexity, financial constraints, unwilling leadership and limited knowledge. These factors in general are the backups of weak governance, market instability, limited technical know-how and lack of commitment to recurrent and capital budgeting. Holding the lack of awareness as the reference point in data analysis was important in drawing a constructive conclusion that FBGs should strive to become aware of the challenges and benefits for MA implementation. Being knowledgeable of the systems challenges and the eventual benefit after adoption is the starting point to deal with all other challenges behind the systems adoption and implementation.

It is recommended that, FBGs should first strive to become aware of challenges associated with the adoption and eventual implementation of MA in their agribusiness operations. Through regular training and attendance of workshops on accounting practices, the farmer group leaders and their associates would become acquainted of MA practices and their contributions to operational and financial performance. This can only be achieved by allocating the budget for such activities in both short-run and long-run goals. Specifically, it is recommended to improve governance and organizational structure by formalizing the operational discipline and switching from manual to computerized accounting.

It is also particularly important to commit funds to both recurrent and capital expenditure. This item should be reflected in working capital budgeting and plan by allocating funds to training and workshops. More importantly, the FBGs should have long-term plans by allocating funds to capital items including the purchase of accounting systems and development of infrastructure that suit such systems

Based on the nature of FBGs, it is difficult for them to act alone in the entire move of switching from manual to sophisticated systems which are compatible with MA operations without involving policy makers. Policy makers have the responsibilities of engaging stakeholders to champion the supportive agenda that fund MA adoption and implementation thereafter. This strategy will not only encourage FBGs to fully participate in accounting systems agenda but also get financial support to finance their recurrent and capital budgeting.

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