

## Analysis of Farm Accounting Practices and Wealth Creation of Rural Farmers in Akwa Ibom State, Nigeria

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### Abstract

*The paper examines the analysis of farm accounting practices and wealth creation of rural farmers in Akwa Ibom State. A multi-stage sampling method was applied and 381 respondents were used for the study. Rural farmers were drawn from six Akwa Ibom State Agricultural Development Programme field Structure Zones. The objectives of the study included to: determine the various types of farm account practiced by rural farmers, examine wealth creation level of rural farmers, and establish the relationship between farm accounting practices and wealth creation amongst rural farmers in Akwa Ibom State. The study reveals that rural farmers mostly kept records of debtors and creditors while majority rarely kept record as they considered it to be time consuming. The result obtained from wealth creation showed that majority (58.27%) of the farmers experienced an increase in income. The result of the multinomial regression showed that farmers accounting practices on preparation of balance sheet shows that there is a significant relationship in increase in income ( $P < 0.05$ ) and increase in physical assets of rural farmers ( $P < 0.05$ ). More so, farm accounting practices on debtors' record and creditors' record were significantly related to increase in income ( $P < 0.01$ ) and physical asset ( $P < 0.01$ ) of the farmers. Farmers' accounting practices on preparation of cash flow statement, Cash receipt book, sales and purchases day book was only significant on increase in income ( $P < 0.05$ ). The farm accounting practices on profit and loss statement affected income ( $P < 0.01$ ) and investment in other businesses and services ( $P < 0.05$ ). Farmer's practices on records management showed a significant relationship in all the response variables as follows: increase in income ( $P < 0.01$ ), increase in physical asset ( $P < 0.05$ ), ability to 'meet family and other responsibilities' ( $P < 0.05$ ), investment in other business and services' ( $P < 0.05$ ) and improvement in knowledge and skill ( $P < 0.05$ ). The study therefore recommended that an enabling environment where farm accounting training with qualified extension personnel should be provided by government also formation of cooperatives which will help pull their resources to farm at large scale to ease the burden of preparing accounts for scattered farm plots and enhance their wealth creation capacities.*

**Key words:** Farm Accounting, Wealth Creation, Accounting Practices

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## INTRODUCTION

Agriculture is a fundamental component of Nigeria's economy, contributing significantly to the country's GDP and providing employment for a substantial portion of the population, particularly in rural areas (National Bureau of Statistics, 2020). Akwa Ibom State, located in the southeastern region of Nigeria, is predominantly agricultural, with a significant number of its residents engaged in various farming activities. Despite the critical importance of agriculture in Akwa Ibom State, many farmers face challenges in maximizing their wealth due to inadequate farm accounting practices. Farm accounting encompasses various activities such as recording farm purchases, tracking utilization of farm inputs, maintaining records of livestock, and documenting equipment procurement (Goncalves & Lopes, 2014). These practices also include tracking crop cultivation, seed planting, cultural activities, and quantities harvested. Effective farm account and record-keeping provide essential information for farm planning, credit sourcing, performance monitoring, research, and decision-making.

Farm accounting is a vital and necessary aspect of operating even the smallest farming enterprise. They serve as important tool in effective farm administration. Without a proper understanding of record practices and its current and future implications, farmers may develop less important to record keeping. According to Etuk and Akpan (2023), farm accounting is prerequisite to effective farm management decision and projection of future profitability of the enterprise with the overall aim of maximizing farm profit and wealth creation. Therefore, one of the strategies of wealth creation is farm accounting practice.

Farm accounting is vital in the preparation of profits and loss account, provision of information on farm history and extent of production of the farm. Farm accounting handles the process of recording, summarizing, analyzing and controlling financial activities permitting users of the information to make informed judgments and decisions. Abayomi and Adegoka (2016) described business record keeping as the systematic documentation of transaction in an orderly manner. Etuk, Okoro and Umoren (2018) mentioned that a good record keeping system assists decision-making decisions. As vital as record keeping where many have failed, it is still seen as an important issue to be addressed (Benjamin, Jakins and Hall 2020). Nigerian farms have no legal obligation to publish financial statements, and when farmers use accounts, they typically only do so to comply with tax and subsidy requirements (Matei,& Onofrei ,2021).

However, the agricultural sector, despite its significance, has traditionally received limited attention from accounting researchers, practitioners, and standard setters (Manteaw, *et al.*, 2021; Etuk, 2021). This lack of focus has resulted in accounting principles that do not adequately address the unique characteristics and information needs of agricultural businesses and farmers. Studies by James and Peter, (2019) have shown that implementing proper accounting practices can enhance farm management and improve overall farm performance. Farmers who adopt formal record-keeping systems and financial accounting are better equipped to make informed financial decisions, such as cash flow projections, ultimately leading to increased wealth creation.

In Nigeria, policymakers and agricultural experts agree that the potential for wealth creation lies significantly in agricultural production, particularly among small-scale farmers (Olawunmi, 2007). Despite this potential, small-scale farmers in Nigeria, including those in Akwa Ibom State, face numerous challenges such as poverty, lack of education, limited access to social amenities, and inadequate farming inputs and implements (James & Peter, 2019). These challenges result in low productivity and limited wealth creation. Furthermore, many

farmers have not effectively utilized available technologies and agricultural information, which hinders their ability to maximize their wealth (Olatunji, et. al. 2012 and Matei & Onofrei, 2021).

The reluctance of farmers to prepare accounting reports and utilize financial information is influenced by several factors, including the small scale of farming operations, subsistence-based practices, weather dependency, and lack of managerial sophistication (Brigham & Houston, 2021). Additionally, the lack of legal requirements for financial reporting and the focus on compliance with tax and subsidy regulations further limit the adoption of comprehensive accounting practices among farmers (Effiong, et al., 2014; Ishola, et. al., 2021). As a result, the potential for wealth creation through improved farm accounting practices remains underexploited in Akwa Ibom State.

Farmers seem not to place significance on farm accounting record, in spite of its importance. Adedapo and Adekunmi (2019) opined that many farmers do not have positive attitude towards keeping farm accounting. Akwa Ibom Agricultural Development Programme having rediscovered the low capacity of farmers in farm record and accounting keeping, instituted a training programme on farm record and accounting keeping with the aim of improving the entrepreneurship and wealth creation of rural farmers in Akwa Ibom State.

The wealth creation potential of rural farmers in Akwa Ibom State is significantly constrained by inadequate farm accounting practices. While agriculture plays a crucial role in the state's economy, many farmers fail to achieve substantial economic gains due to poor financial management. This deficiency in accounting practices leads to inefficient resource utilization, lack of financial planning, and ultimately, reduced income and savings. Moreover, the absence of systematic record-keeping impedes farmers' ability to access credit and other financial services essential for expanding their agricultural operations (Adetunji, 2012).

Despite the demonstrated benefits of effective farm accounting practices in enhancing financial performance, the adoption of such practices among rural farmers in Akwa Ibom State remains low. This gap hinders their ability to make informed financial decisions and improve their economic outcomes (Barry, et al. 2012). Furthermore, the lack of tailored accounting principles for agriculture exacerbates the problem, as existing standards do not adequately address the specific needs of farmers. Addressing this gap is crucial for developing targeted interventions that can improve the economic well-being of rural farmers in Akwa Ibom State. Therefore, this study seeks to evaluate the current farm accounting practices among rural farmers, assess their impact on wealth creation, identify the challenges faced in implementing these practices, and recommend strategies for improvement. By doing so, the study aims to provide valuable understanding of how enhanced accounting practices can contribute to the economic empowerment of rural farmers in the region. The study will answer the following research questions:

- I. What are the various types of farm account practices by rural farmers in Akwa Ibom State?
- II. What are the wealth creation level of rural farmers in Akwa Ibom State?
- III. Is there relationship between farm accounting practices and wealth creation amongst rural farmers in Akwa Ibom State?

The main objective of the paper was to analyze farm accounting practices and wealth creation of rural farmers in Akwa Ibom State. Other specific objectives of the study were:

- i. determine the various types of farm account practices by rural farmers in Akwa Ibom State.
- ii. examine wealth creation level of rural farmers in Akwa Ibom State.
- iii. establish the relationship between farm accounting practices and wealth creation amongst rural farmers in Akwa Ibom State.

### **Theoretical Review**

#### **Resource-Based View (RBV)**

The Resource-Based View (RBV) theory, initially proposed by Birger Wernerfelt (1984) and further developed by Jay B. Barney (1991), emphasizes that sustainable competitive advantage and superior performance result from valuable, rare, inimitable, and non-substitutable resources possessed by a firm. These strategic resources serve as the foundation for developing capabilities that lead to long-term success (Barney, *et al.*, 2001).

In the agricultural context, RBV suggests that effective farm accounting practices can be viewed as valuable and potentially rare resources (Etuk and Akpan, 2023). Farm accounting involves systematic recording and analysis of financial transactions, performance metrics, and resource utilization. By accurately tracking inputs (such as seeds, fertilizers) and outputs (crop yields), farmers can optimize resource allocation, reduce costs, and improve productivity (Akpabio *et al.* 2020 and Gonçalves & Lopes, 2014). This capability enables farmers in Akwa Ibom State to leverage their existing resources effectively, thereby enhancing their wealth creation potential. RBV advocates argue that leveraging existing resources to capitalize on external opportunities is often more viable than acquiring new capabilities for each new opportunity (Eniola & Entebang, 2014). Tangible resources (e.g., financial and physical capital) and intangible resources (e.g., knowledge, skills, organizational processes) play critical roles in enhancing firm performance and innovation capabilities (Hewitt-Dundas, 2006).

#### **Application to Farm Accounting Practices of rural farmers**

Farm accounting practices, including comprehensive record-keeping and financial management, allow farmers to identify strengths and weaknesses within their operations. This strategic assessment helps in allocating resources efficiently, making informed decisions on investments in agricultural inputs, and optimizing production processes. By aligning farm accounting practices with RBV principles, farmers can enhance their competitive advantage, improve operational efficiency, and ultimately increase wealth creation.

Therefore, the Resource-Based View (RBV) theory provides a robust framework for understanding how farm accounting practices contribute to wealth creation among rural farmers in Akwa Ibom State. By emphasizing the strategic importance of resources and capabilities, RBV guides agricultural strategies that optimize resource use, improve financial performance, and foster sustainable development in rural communities.

#### **Agency Theory**

Agency Theory, developed by Michael Jensen and William Meckling (1976), explores the relationships and conflicts that arise between principals (farmers) and agents (managers or other stakeholders) due to divergent interests and information asymmetry. The theory posits

that effective governance mechanisms and transparent information systems are essential to mitigate these conflicts and align the interests of principals and agents (Barry et al., 2012).

In the context of agriculture, Agency Theory underscores the importance of farm accounting practices as crucial governance mechanisms. Farm accounting involves systematic recording and reporting of financial transactions, performance metrics, and resource utilization. By providing clear and accurate financial information, farm accounting enhances transparency, accountability, and trust between farmers and stakeholders (Barry et al., 2012). This transparency reduces agency costs associated with information asymmetry and facilitates better decision-making regarding resource allocation and investment in agricultural inputs.

### **Application to Farm Accounting Practices of rural farmers**

Farm accounting practices guided by Agency Theory help farmers in Akwa Ibom State to effectively monitor and manage their financial resources. Clear financial reporting enables farmers to assess their financial health, track profitability, and evaluate the efficiency of their operations. Moreover, transparent financial information enhances farmers' ability to access credit and other financial services essential for expanding their agricultural activities (Barry et al., 2012).

Agency Theory also emphasizes the role of incentives and monitoring mechanisms in aligning the interests of farmers and stakeholders. By implementing robust farm accounting practices, farmers can demonstrate their commitment to sound financial management, thereby building trust with investors, lenders, and other partners. This trust enhances access to resources and support systems necessary for improving farm productivity and overall economic outcomes.

Therefore, Agency Theory provides a valuable theoretical framework for understanding how farm accounting practices contribute to wealth creation among rural farmers in Akwa Ibom State. By promoting transparency, accountability, and effective governance, Agency Theory guides agricultural strategies that optimize resource use, improve financial performance, and foster sustainable development in rural communities.

### **METHODOLOGY**

This study was conducted in Akwa Ibom State. Akwa Ibom State is situated in the coastal Southern part of Nigeria lying between latitudes  $4^{\circ} 32'$  and  $5^{\circ} 33'$  North and Longitudes  $7^{\circ} 25'$  and  $8^{\circ} 25'$  East ( Etuk, and Umoh, 2014, Etuk et al.,2020 and Etuk,2021). The population of this study consists of Rural Farmers in Akwa Ibom State. Multi-Stage Sampling was applied for Study. In the first stage, stratified random sampling was used and Akwa Ibom State Agricultural Development Programme (AKADEP) field Structure and grouped into six AKADEP Zones namely Abak, Eket, Etinan, Ikot Ekpene, Oron and Uyo Zones. In the second stage, simple random selection of 20% of AKADEP blocks in each of the Zones. The use of 20% was to reduce the sampling error to the barest minimum, a total of Nine blocks were selected for this Study. In third stage, application of simple random selection of 20% to selected cells in each of the selected block, therefore two cells were selected from each of the zones. In the fourth stage, proportional sampling method was used to determine the sample size in each selected cells based on the variation in the population of farmers across the selected cell as indicated in Table 1. In order to achieve this, the YaroYamane formula was employed as follows:

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

Where n = the infinite population, N = Sample Size, E = Level of significance (0.05) and 1 = Unit (constant)

Based on the application of the Yaro Yamane formula for sample size determination and the population of farmers registered with All Farmers Association of Nigeria (AFAN), Akwa Ibom State Branch in 2017 as cited by Obot (2021), the population of farmers is determined as follows:

$$n = \frac{7826}{1 + 7826(0.05)^2} \quad n = \frac{7826}{20.55} = n = 380.827 = 381 \quad \text{Therefore, } n = 381$$

Fifth Stage: Having sampled the cells as well as determined the sample of size for the study, in this stage, the sampling of respondents in each selected cell for questionnaires administration and interview were carried out. Simple random sampling was employed for the selection of 381 respondents for the study as indicated in Table 1.

**Table 1: Sampling frame and farmers' sample size selection in akadep cell**

AKADEP Zone	AKADEP Blocks (20%)	Cells (20%)	Population AFAN2021 By Obot (2021)	Sampled Population
Abak	Ikot Ekang Utu Etim Ekpo	Ikot Obong Utu		
		Ikot Esop	561	27
Eket	Mkpat Enin	Ikot Osung		
		Otuk	687	33
Etinan	Etinan	Ekpene Obom	621	30
		Mbioto 2	812	40
Ikot Ekpene	Obot Akara Ini	Abak ukpom	596	29
		Nto Etto	674	33
		Obotme	689	34
		EkoiAtan Ubom	561	27
Oron	Okobo	Etieke Offi	497	24
		Uyo		
Uyo	Ikpa Itu	Ikot Obong	796	39
		Ikot Abiyak	621	30
<b>6</b>	<b>9</b>	<b>12</b>	<b>7826</b>	<b>381</b>

**Source: Authors Compilation 2023**

Data for the study were collected from primary and secondary sources. Questionnaire was used to elicit information from the respondents. The questionnaire was derived from specific objective of the study. Data obtained for the study were analyzed using both descriptive and inferential statistical tools such as frequencies, percentages, means, ranks and Multinomial Regression Model.

The Multinomial Regression Model is expressed as follows:

$$P (Y_i = m) = \frac{\exp (Z_{mi})}{[1 + \sum_{h=2}^m \exp (Z_{hi})]} \quad (1)$$

$Y$  denotes the random variables taking on the value of (0, 1, 2, 3, 4, ...15) for a non-negative integer  $j$ , while  $x''$  denotes a set of conditioning variables. In this study,  $Y$  represents the farm accounting behavior variables while  $X$  represents wealth creation variables of rural farmers. The Study assumes that probability of wealth creation variable by any farmer is dependent on probability of any level of farm accounting record utilize  $d$ . The parameter estimates of MNL Model provide direction of the effect of the independent variables on the dependent variable; hence the estimate represents neither the actual magnitude of change not the probabilities (Green 2000 as cited by Henri-Ukoha, 2020) where:

$$Y_i = \ln(P_m / P_1) = \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + \beta_{10} X_{10} e_i \quad (2)$$

Where:

$Y_0$  = Record,  $Y_1$  = Increase in income,  $Y_2$  = Increase in physical asset,  $Y_3$  = Ability to meet family and other responsibilities,  $Y_4$  = Investment in other businesses and services,  $Y_5$  = Improvement in Knowledge and Skill,  $Y_6$  = Increase in working Capital.

The explanatory variables are:

Balance Sheet,  $X_1$  = Bank statement,  $X_2$  = Records Management,  $X_3$  = Cash flow statement,  $X_4$  = Cheques journal,  $X_5$  = Cash receipt book,  $X_6$  = Sales day book,  $X_7$  = Purchase day book,  $X_8$  = Debtors record,  $X_9$  = Creditors record,  $X_{10}$  = Payroll,  $X_{11}$  = Sales invoices,  $X_{12}$  = Stock records,  $X_{13}$  = Profit and Loss Statement,  $X_{14}$  = Tax Returns,  $X_{15}$  = Farm Budgeting

## DISCUSSION OF FINDINGS

### Level of Farm Accounting Record Utilized by Rural Farmers in Akwa Ibom State

Table 1 assesses the level of farm accounting record utilized by rural farmers in Akwa Ibom State. A 4-point Likert Scale of Always Kept (AK), Often Kept (OK), Rarely Kept (RK) and Never Kept (NK) was used for the assessment of various types of farm account records kept in the study. The benchmark mean score was 2.5 for each record type. This implies that variables with mean scores above 2.5 are accepted as regularly kept records by the farmers while variables with mean scores below 2.5 were regarded as poorly kept records in the study. From the result obtained in Table 1, sixteen (16) different farm account types were presented to the respondents to select the ones kept by the. Out of the sixteen variables, only two (2) variables had mean scores above 2.5. These variables were debtors' records ( $\bar{X} = 3.13$ ) and creditors' records ( $\bar{X} = 2.76$ ).

From the result, the most kept farm account record in the study was debtors' record. Debtors' record constitutes a record of all buyers who purchased farm produce/products on credit with a promise to pay at an agreed future date. The implication of this result is that the respondents understood the effect of excessive debt on farm business which include among others, running the business at a loss; especially if the debts/debtors are forgotten. This makes it pertinent to keep up-to-date record of buyers owing the farmers to ensure adequate and timely follow-up in order to recover the debts. The second most kept farm account record in the study is creditors' record. Creditors' record constitutes a record of sellers from which the respondents purchase farm inputs/products on credit (i.e. sellers whom the respondents are indebted to). The implication of this result is that the respondents understand that failure to keep records of creditors can hinder a smooth business relationship with their creditors which could arise from its calculated credit or breach of contract on the part of the farmer due to absence of records. Table 1 further shows that the farmers also kept other farm account records although their mean scores were not up to the benchmark mean score of 2.5. such records were: stock record ( $\bar{X} = 2.44$ ), sales invoices ( $\bar{X} = 2.35$ ), profit and loss (P & L) statement ( $\bar{X} = 2.31$ ), farm budgeting

record ( $\bar{X}$  =2.27), records management ( $\bar{X}$  = 2.11), cheque journal ( $\bar{X}$  =2.08), cash flow statement ( $\bar{X}$  =2.07), purchases day statement ( $\bar{X}$  = 2.07), balance sheet ( $\bar{X}$  = 2.05) and payroll ( $\bar{X}$  =2.04). The least kept farm account records in the study were: cash receipt book ( $\bar{X}$  = 2.03), sales day book ( $\bar{X}$  =2.03), bank statement ( $\bar{X}$  =2.01) and tax returns ( $\bar{X}$  =1.53). Records on bank statement and tax returns were the lowest. This is expected because most rural farmers do not own nor operate business accounts. Those who own bank accounts mostly use them for private purposes and not for farm business. Furthermore, the ones who operate farm business accounts would rather prefer to get bank statements printed out by their banks when needed instead of keeping such records by themselves. This has contributed to the poorly kept bank statement record in the study. On the other hand, the farmers rarely kept records of tax returns due to multiple taxation system practiced in the local markets where the farmers have to pay numerous taxes to different groups under different sub-heads, when they take their farm produce to the market for sales.

Table 1: Level of farm accounting record utilized by rural farmers in Akwa Ibom State

Type of Farm Account Record	Always Kept	Often Kept	Rarely Kept	Never Kept	Mean
Balance Sheet	26 (6.8)	71 (18.6)	182 (47.7)	102 (26.7)	2.05
Banktement	28 (7.3)	51 (13.3)	201 (52.7)	101 (26.5)	2.01
Records Management	21 (5.5)	98 (25.7)	166 (43.5)	96 (25.1)	2.01
Cash Flow Statement	56 (14.6)	51 (13.3)	138 (36.2)	136 (35.6)	2.07
Cheques Journal	34 (8.9)	54 (14.1)	203 (53.2)	90 (23.6)	2.08
Cash Receipt Book	32 (8.3)	46 (12.1)	206 (54.0)	97 (25.4)	2.03
Sales Day Book	31 (8.1)	41 (10.7)	220 (57.7)	89 (23.3)	2.03
Purchases Day Book	34 (8.9)	39 (10.2)	230 (60.3)	78 (20.4)	2.07
Debtors Records	160 (41.9)	126 (33.0)	80 (26.9)	15 (3.9)	3.13
Creditors Records	150 (39.3)	138 (36.2)	83 (21.7)	10 (2.6)	2.76
Payroll	40 (10.4)	50 (13.1)	178 (46.7)	113 (29.6)	2.04
Sales Invoices	51 (13.3)	67 (17.5)	229 (60.1)	24 (8.9)	2.35
Stock Record	56 (14.6)	87 (22.8)	208 (54.5)	30 (7.8)	2.44
Profit and Loss (P & L) statement	40 (10.4)	82 (21.5)	218 (57.2)	41 (10.7)	2.31
Tax Returns	2 (0.5)	13 (3.4)	170 (44.6)	196 (51.4)	1.53
Farm Budgeting Record	43 (11.2)	86 (22.5)	184 (48.2)	68 (17.8)	2.27

Source: Field Survey, 2023

### Wealth Creation of Rural Farmers in Akwa Ibom State

Table 2 shows the distribution of rural farmers based on wealth creation in the study area. From the result obtained, 222 (58.27%) of the farmers experienced an increase in income while 159 (41.73%) of farmers did not. On the other hand, 182 (47.18%) of farmers had an increase in physical assets while 199 (52.23%) of farmers did not. Whereas 172 (45.14%) of farmers had increased ability to meet family and other responsibilities. Furthermore, a rise in investment in other businesses and services outside farming was indicated by 151 (39.63% of the respondents against 230 (60.37%) who never had such experience. An improvement in knowledge and skills was experienced by 184 (48.29%) while 19 (57.71%) of the respondents did not experience an improvement in their knowledge and skills level. Lastly, there was an

increase in working capital for 161 (42.26%) of the respondents against 220 (57.74%) who could not increase their working capital. Generally, the result obtained from Table 2 implies that majority of the rural farmers did not experience any improvement in their physical assets, ability to meet family and other responsibilities, working capital, knowledge and skills neither did they experience a rise in investment in other businesses and services while majority of farmers only experienced improvement in farm income.

Table 2: Distribution of respondents based on wealth creation

Variable	Yes	No
Increase in income	222 (58.27)	159 (41.73)
Increase in physical asset	182 (47.78)	199 (52.23)
Ability to meet family and other responsibilities	172 (45.14)	209 (54.86)
Investment in other business and services	151 (39.37)	230 (60.37)
Improvement in knowledge and skills	184 (48.29)	197 (51.71)
Increase in working capital	161 (42.26)	220 (57.74)

Source: Field Survey, 2023

### Relationship between Farm Accounting practices and Wealth Creation of Rural Farmers in Akwa Ibom State

From the result in Table 3, the result of the multinomial logit shows that accounting practices on balance sheet, bank statement, record management, cash flow statement, cheque journals, cash receipt book, sales day book, purchase day book, debtors record, creditors records, profit and loss statement, tax returns and farm budgeting record affected farmers' wealth creation. The Log-likelihood Chi-square ( $X^2$ ) is significant at  $P < 0.01$ ) indicating that the model has a good fit.

Farmers' practices on preparation of balance sheet shows that there is a significant relationship in increase in income ( $P < 0.05$ ) and increase in physical assets of rural farmers ( $P < 0.05$ ). This implies that a unit increase in positive behavior of farmers in balance sheet will increase farmers' income and physical assets by 21.22% and 11.34% respectively in the study area. Farmers' practices on records management shows a significant relationship in all the response variables as follows: increase in income ( $P < 0.01$ ), increase in physical asset ( $P < 0.05$ ), ability to meet family and other responsibilities ( $P < 0.05$ ), investment in other business and services ( $P < 0.05$ ) and improvement in knowledge and skill ( $P < 0.05$ ). This implies that a unit increase in the positive practices on accounting record management will lead to increase in wealth creation by 16.31%, 14.43%, 13.45% and 11.45% respectively.

Farmers' practices on preparation of cash flow statement were only significant on increase in income ( $P < 0.05$ ). This implies that a unit increase in farmers' behavior will increase the probability of increasing the farmers' income. Cash receipt book practices of farmers was only related to increased income of farmers ( $P < 0.05$ ). By implication, a unit increase in positive practices on farmers on cash receipt book will lead to 4.43% increase in farmers' income. Farmers' positive practices in sales ( $P < 0.05$ ) and purchases day books ( $P < 0.05$ ) were significant to increased income. This is an indication that a unit increase in the use of sales and purchase day books in the farming business will lead to increase in the farmers' income by 8.34% and 7.96% respectively. Farm accounting practices on debtors' record and creditor's record were significantly related to increase in income ( $P < 0.01$ ) and physical asset ( $P < 0.01$ ) of the farmers. It implies that a unit increase in both debtors and creditors accounting keeping will lead to increase in income and physical assets of the farmers (2.24% and 3.45%) respectively. The farm accounting practices of profit and loss statement affected income ( $P <$

0.01) and investment in other businesses and services ( $P < 0.05$ ). Therefore, an increase in the unit of using profit as loss statement will lead to the increase in farmers' income and investment.

**Table 3: Result of the Multinomial Logit of Farm Accounting and Wealth Creation of Rural Farmers in Akwa Ibom State**

Variables	Increase in income	Increase in physical asset	Ability to meet family and other responsibilities	Investment in other business and services	Improvement in knowledge and skills
Bank Statement	0.3158 (0.7149)	0.0714 (0.6284)	0.8196 (0.7493)	0.1343 (0.1886)	0.2156 (0.4314)
Records Management	0.1613 (3.1234)**	0.1443 (2.0113)	0.1345 (1.789)*	0.1145 (3.0131)**	0.1106 (1.9378)*
Cash Flow Statement	0.1134 (1.4345)*	0.0754 (0.11e – 06)	0.1314 (0.3124)	0.1678 (0.2217)	0.3463 (0.4314)
Cheques Journal	0.2113 (0.2143)	0.0134 (0.1478)	0.0014 (0.089)	0.0363 (0.0419)	0.3139 (0.3986)
Cash Receipt Book	0.0443 (2.1384)	0.1434 (0.2439)	0.3678 (0.3519)	0.2249 (0.2036)	0.3803 (0.2930)
Sales Day Book	0.0834 (2.0138)*	0.3183 (0.3167)	0.2134 (0.1799)	0.1787 (0.1696)	0.4113 (0.3996)
Purchases Day Book	0.0796 (2.1345)*	0.7143 (0.7013)	0.2819 (0.2014)	0.3972 (0.3778)	0.6734 (0.6189)
Debtors Records	0.0245 (2.6175)**	0.0159 (2.1831)**	0.3513 (0.3079)	0.5134 (0.4334)	0.7435 (0.6989)
Creditors Records	0.0345 (2.1346)**	0.0145 (2.0114)*	0.4587 (0.4035)	0.1785 (0.1600)	0.3463 (0.3419)
Payroll	0.0468 (0.7489)	0.3144 (0.2466)	0.1043 (0.1032)	0.0173 (0.1293)	0.2638 (0.2713)
Sales Invoices	0.6134 (0.0112)	0.3323 (0.1769)	0.1838 (0.1988)	0.2145 (0.3328)	0.1043 (0.1024)
Stock Record	0.4134 (0.1116)	0.3442 (0.2451)	0.4767 (0.5007)	0.3668 (0.3111)	0.1342 (0.1425)
Profit and Loss (P & L) statement	0.0346 (2.0087)**	0.4756 (0.3134)	0.6784 (0.1874)**	0.4314 (2.423)*	0.2146 (0.2215)
Tax Returns	0.1478 (0.1184)	0.0078 (0.4781)	0.0043 (0.1746)	0.7113 (0.5188)	0.0896 (0.1384)
Farm Budgeting Record	0.3149 (0.1313)	0.2146 (0.1733)	0.1134 (0.0934)	0.1893 (0.1311)	0.0768 (0.0134)
<b>LR Chi-square</b>	<b>3.0113</b>	<b>2.1213)*</b>	<b>0.1493</b>	<b>1.3434</b>	<b>1.7463</b>
<b>Probability</b>	<b>301</b>				
<b>Pseudo R<sup>2</sup></b>	<b>37.61</b>				
<b>Log-likelihood R<sup>2</sup></b>	<b>0.7984</b>				

Source: Field Survey, 2023, Source: Computation from Eview Version 8.0 2023. Note: \*\*\*significant at 1%, \*\*significant at 5%, \*significant at 10%.

## Conclusion

Farm account record keeping is one of the necessary practices for a successful farming business. However, the rural farmers in the study mostly kept farm accounts regarding debtors' records and creditors' records. Generally, majority of the farmers rarely kept written records. The study concluded that farmers that practiced record management, Cash flow Statement, Sales day book, Purchase daybook, Debtors record, Creditors record, Profit or loss statement, significantly affected increase in income of rural farmers. It also concluded that farmers that practiced debtor and creditors record significantly affected their physical asset. There was also a significant relationship between record management, profit or loss statement and ability to meet family and other responsibilities. Profit or Loss statement and record management significantly affected investment in other business, furthermore there was a significant relationship between record management and improvement in knowledge and skill of farmers.

## RECOMMENDATIONS

Based on the findings of the Study, the following recommendations were made:

- Government should set out modalities to regulate tax collection which hinders effective farm accounting of tax returns considering the multiple taxation system the rural farmers are exposed to when they take farm produce to the market for sale.
- Government should encourage farmers' engagement in mechanized farming and provision of subsidies such as fertilizers and other farm inputs/incentives to only farmers who can present their up-to-date farm accounts. This will arouse the declining interest of the farmers in keeping farm account records.
- Farmers should be encouraged to form and join cooperatives which will enable them to pull their resources together to farm at a large scale. This will reduce the burden of preparing farm accounts for scattered farm plots and enhance their wealth creation capacities.
- Farm accounting training/lessons which are tailored to suit the need and literacy level of rural farmers should be prepared and taught to rural farmers in a manner and language that they can easily understand and incorporate in their farm business.

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