

**INSTITUTIONAL DRIVERS AND CHALLENGES OF SUSTAINABLE  
AGRICULTURAL PROCUREMENT: A CASE STUDY OF THE FADAMA PROJECT  
IN ONDO STATE, NIGERIA**

**Damilola Emmanuel ADEBOMI  
MAT. NO: PG/SPE2415695**

**DEPARTMENT OF PROCUREMENT MANAGEMENT  
CENTRE FOR SUSTAINABLE PROCUREMENT, ENVIRONMENTAL,  
SOCIAL, STANDARDS ENHANCEMENT (SPESSE)  
UNIVERSITY OF BENIN  
BENIN CITY**

**OCTOBER, 2025**

**INSTITUTIONAL DRIVERS AND CHALLENGES OF SUSTAINABLE  
AGRICULTURAL PROCUREMENT: A CASE STUDY OF THE FADAMA PROJECT  
IN ONDO STATE, NIGERIA**

**Damilola Emmanuel ADEBOMI**

**MAT. NO: PG/SPE2415695**

**A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF  
PROCUREMENT MANAGEMENT, CENTRE FOR SUSTAINABLE PROCUREMENT,  
ENVIRONMENTAL, SOCIAL STANDARD ENHANCEMENT (SPESSE),  
UNIVERSITY OF BENIN, BENIN CITY IN PARTIAL FULFILMENT OF THE  
REQUIREMENT FOR THE AWARD OF MASTERS OF SCIENCE DEGREE IN  
PROCUREMENT MANAGEMENT**

**OCTOBER, 2025**

## **DECLARATION**

I, **Damilola Emmanuel ADEBOMI** do hereby declare that this project is entirely my work and composition. The work embodied in this project has not been submitted by another candidate for any degree and is not currently being submitted for any other degree. All references made to the work of others have been duly acknowledged

---

**Damilola Emmanuel ADEBOMI**

---

**DATE**

## **CERTIFICATION**

We the undersigned, certify that this project work titled “**INSTITUTIONAL DRIVERS AND CHALLENGES OF SUSTAINABLE AGRICULTURAL PROCUREMENT (A CASE STUDY OF THE FADAMA PROJECT IN ONDO STATE, NIGERIA)** was carried out by **Damilola Emmanuel ADEBOMI** with **matriculation number PG/SPE2415695** and the work is adequate in scope and quality in partial fulfillment of the requirements for the award of Masters of Science (M. Sc.) degree in Procurement Management, University of Benin

---

**Prof. S A. Oyefusi**  
**(Project Supervisor)**

---

**Professor D. E. Oriakhi**  
**Deputy Center Leader**

---

**DATE**

---

**DATE**

---

**Professor Sylvester Osuji**  
**(Centre Leader)**

## **DEDICATION**

This research work is dedicated to God Almighty for His unfailing grace and mercy. It is also dedicated to my family and siblings Dorin, Bukola, and Wale for their love, prayers, encouragement, and continuous support throughout my academic journey.

## **ACKNOWLEDGEMENTS**

First of all, I sincerely thank God Almighty for His grace, guidance, and strength throughout the course of this research project, and for enabling me to successfully complete it.

I express my profound gratitude to my supervisor, Prof. S. A. Oyefusi, for his invaluable guidance, intellectual support, patience, and constructive corrections throughout this research. His supervision greatly enhanced the quality of this work.

I also sincerely acknowledge Dr. I. M. Ngwudiobu for his vast body of knowledge, professional guidance, and valuable insights during the project phase. His contributions were instrumental to the successful completion of this research.

My appreciation further goes to the Centre Leader, Prof. Sylvester Osuji, and the Deputy Centre Leader, Prof. D. E. Oriakhi, as well as all lecturers in the Department of Procurement Management, Faculty of SPESSE, University of Benin, for their academic support and the enabling environment provided throughout the programme.

I am deeply grateful to my family and siblings, Dorin, Bukola, and Wale, for their unwavering love, encouragement, and moral support during the course of this programme.

I also acknowledge my colleagues Eng. Oni, Mr. Vincent, and Mr. Omole for their support, cooperation, and meaningful contributions during this research.

To all who contributed directly or indirectly to the success of this project, I sincerely appreciate you. God bless you all.

## ABSTRACT

Sustainable agricultural procurement has become an essential pathway for improving food security and rural livelihoods in developing economies. This study examines the institutional drivers and challenges of sustainable agricultural procurement using the FADAMA Project in Ondo State, Nigeria, as a case study. The main objective was to assess procurement delivery effectiveness, identify institutional and operational barriers, and evaluate how existing sustainable procurement strategies contribute to agricultural productivity and long term sustainability across selected local government areas.

The study adopted a descriptive and explanatory survey design, relying primarily on qualitative data collected from key stakeholders directly involved in FADAMA implementation and monitoring, including project officials and beneficiary institutions. Regression techniques were applied to analyze relationships between procurement delivery, institutional challenges, and sustainability outcomes. The target population was made up of 286 respondents which comprised individuals and organizations participating in the FADAMA project, providing empirical evidence on procurement planning, input distribution, monitoring processes, and sustainability practices.

Findings reveal that effective procurement delivery mechanisms, especially needs assessment, timely input distribution, and monitoring, significantly enhance food security and agricultural outcomes. However, institutional inefficiency, financial constraints, logistical bottlenecks, and governance interference were identified as major obstacles. The study concludes that procurement success under FADAMA largely depends on governance quality, institutional capacity, and execution discipline. It recommends strengthening procurement procedures through standardized systems, improving transparency and capacity building, and expanding sustainable strategies such as farmer training, climate smart practices, and secures delivery frameworks to ensure lasting productivity and sustainability

## TABLE OF CONTENTS

COVER PAGE.....	i
TITLE PAGE.....	iii
DECLARATION .....	iv
CERTIFICATION .....	iv
DEDICATION.....	v
ACKNOWLEDGEMENTS.....	vii
ABSTRACT.....	vii
<b>CHAPTER ONE .....</b>	<b>6</b>
<b>INTRODUCTION.....</b>	<b>6</b>
<b>1.1 PREAMBLE.....</b>	<b>6</b>
<b>1.2 STATEMENT OF THE PROBLEM .....</b>	<b>8</b>
<b>1.3 RESEARCH QUESTIONS .....</b>	<b>12</b>
<b>1.4 RESEARCH OBJECTIVES .....</b>	<b>13</b>
<b>1.5 RESEARCH HYPOTHESES .....</b>	<b>13</b>
<b>1.6 SIGNIFICANCE OF THE STUDY.....</b>	<b>14</b>
<b>1.7 SCOPE OF THE STUDY.....</b>	<b>17</b>
<b>CHAPTER TWO .....</b>	<b>18</b>
<b>BACKGROUND TO THE STUDY.....</b>	<b>18</b>
<b>2.1 AN OVERVIEW ON AGRICULTURAL PROCUREMENT IN NIGERIA.....</b>	<b>18</b>
<b>2.2 POLICY AND REGULATORY FRAMEWORKS .....</b>	<b>19</b>
<b>2.2.1 Monitoring and Evaluation Mechanisms.....</b>	<b>20</b>
<b>2.2.2 Role of Procurement Laws.....</b>	<b>21</b>
<b>2.2.3 Transparency and Accountability Mechanisms.....</b>	<b>21</b>
<b>2.3 RELEVANCE OF FADAMA PROJECT IN THE NIGERIAN AGRICULTURAL SECTOR ..</b>	<b>22</b>

<b>2.4 CHALLENGES TO SUSTAINABLE AGRICULTURAL PROCUREMENT IN NIGERIA.....</b>	<b>24</b>
<b>2.5 AGRICULTURAL PROCUREMENT TRENDS IN ONDO STATE.....</b>	<b>27</b>
<b>2.6 STAKEHOLDER ENGAGEMENT (FARMERS ASSOCIATIONS VALIDATION, COOPERATIVES, NGOs, AND DONOR INVOLVEMENT .....</b>	<b>28</b>
<b>2.6.1 Primary Stakeholder Groups and Their Roles .....</b>	<b>28</b>
<b>2.6.1.1 Coordination Mechanisms and Institutional Arrangements .....</b>	<b>28</b>
<b>2.6.1.2 Challenges and Opportunities in Stakeholder Engagement .....</b>	<b>29</b>
<b>2.6.1.3 Implications for Sustainable Agricultural Procurement.....</b>	<b>30</b>
<b>2.6.1.4 Non-Governmental Organizations as Facilitators and Advocates .....</b>	<b>32</b>
<b>2.6.1.5 Donor Involvement and International Partnerships .....</b>	<b>33</b>
<b>2.6.1.6 Government Institutions and Regulatory Frameworks: .....</b>	<b>34</b>
<b>2.6.1.7 Suppliers and Private Sector Engagement .....</b>	<b>35</b>
<b>2.6.2 Coordination Mechanisms and Institutional Challenges .....</b>	<b>36</b>
<b>2.6.2.1 Farmers' Associations and Cooperative Structures.....</b>	<b>36</b>
<b>2.6.2.2 Non-Governmental Organizations as Facilitators and Advocates .....</b>	<b>37</b>
<b>2.6.2.3 Donor Involvement and International Partnerships .....</b>	<b>38</b>
<b>2.6.2.4 Government Institutions and Regulatory Frameworks .....</b>	<b>39</b>
<b>2.6.2.5 Suppliers and Private Sector Engagement .....</b>	<b>40</b>
<b>2.6.2.6 Coordination Mechanisms and Institutional Arrangements .....</b>	<b>41</b>
<b>2.6.2.7 Challenges and Opportunities in Stakeholder Engagement .....</b>	<b>42</b>
<b>2.6.2.8 Implications for Sustainable Agricultural Procurement.....</b>	<b>42</b>
<b>CHAPTER THREE .....</b>	<b>44</b>
<b>LITERATURE REVIEW .....</b>	<b>44</b>
<b>3.1 CONCEPTUAL CLARIFICATIONS.....</b>	<b>44</b>
<b>3.1.1 Understanding Sustainability.....</b>	<b>44</b>
<b>3.1.2 Understanding Agricultural Procurement .....</b>	<b>45</b>

<b>3.1.3 Understanding Institutional Framework</b> .....	47
<b>3.1.3.1 Regulatory Framework</b> .....	48
<b>3.1.3.2 Organizational Structure</b> .....	48
<b>3.1.3.3 Financial Mechanisms</b> .....	49
<b>3.1.3.4 Information Systems</b> .....	49
<b>3.1.3.5 Quality Assurance and Standards</b> .....	49
<b>3.1.3.6 Dispute Resolution Mechanisms</b> .....	49
<b>3.2 THEORETICAL LITERATURE</b> .....	50
<b>3.2.1 Institutional Theory</b> .....	50
<b>3.2.1.1 Foundations of Institutional Theory</b> .....	51
<b>3.2.1.2 Application to Agricultural Procurement</b> .....	51
<b>3.2.1.3 Institutional Theory in FADAMA Context</b> .....	52
<b>3.2.2 Evolution and Core Principles</b> .....	53
<b>3.2.2.3 Stakeholder Dynamics in FADAMA Implementation</b> .....	55
<b>3.2.3 Resource-Based Theory</b> .....	56
<b>3.2.3.1 Theoretical Foundations and Development</b> .....	56
<b>3.2.3.3 Resource-Based Analysis of FADAMA Procurement</b> .....	58
<b>3.2.4 Theoretical Integration and Synthesis</b> .....	59
<b>3.2.4.1 Interconnections between Theories</b> .....	59
<b>3.2.4.2 Integrated Framework for FADAMA Procurement Analysis</b> .....	60
<b>3.3 EMPIRICAL LITERATURE</b> .....	61
<b>3.3.1 Global Empirical Studies</b> .....	61
<b>3.3.2 Nigerian Empirical Evidence</b> .....	63
<b>3.3.3 Specific Empirical Evidence in Ondo State</b> .....	66
<b>3.4 SUMMARY OF EMPIRICAL REVIEW</b> .....	68

<b>3.5 GAP IN LITERATURE .....</b>	<b>71</b>
<b>CHAPTER FOUR.....</b>	<b>76</b>
<b>THEORETICAL FRAMEWORK AND METHODOLOGY .....</b>	<b>76</b>
<b>4.1 RESEARCH DESIGN .....</b>	<b>76</b>
<b>4.2 STUDY AREA AND POPULATION .....</b>	<b>76</b>
<b>4.3 SOURCES AND METHODS OF DATA COLLECTION.....</b>	<b>77</b>
<b>4.4 SAMPLING TECHNIQUES AND SAMPLE SIZE .....</b>	<b>78</b>
<b>4.4.1 Sample Techniques .....</b>	<b>78</b>
<b>4.4.2 Sample Size Determination .....</b>	<b>79</b>
<b>4.5 MODEL SPECIFICATION.....</b>	<b>81</b>
<b>Model Two.....</b>	<b>82</b>
<b>(a) Theoretical model.....</b>	<b>82</b>
<b>(i) Econometric Specification (Single Equation) .....</b>	<b>82</b>
<b>Model Three .....</b>	<b>83</b>
<b>(a) Construction of APS.....</b>	<b>83</b>
<b>(b) Theoretical model.....</b>	<b>84</b>
<b>(c) Econometric specification .....</b>	<b>84</b>
<b>4.6 VALIDITY, RELIABILITY, AND ETHICAL CONSIDERATIONS.....</b>	<b>86</b>
<b>CHAPTER FIVE .....</b>	<b>89</b>
<b>PRESENTATION OF RESULT AND DATA ANALYSIS .....</b>	<b>89</b>
<b>5.0 INTRODUCTION.....</b>	<b>89</b>
<b>5.1 PRE-ESTIMATION ANALYSIS .....</b>	<b>89</b>
<b>5.1.1 Reliability Analysis .....</b>	<b>89</b>
<b>5.2. DESCRIPTIVE STATISTICS.....</b>	<b>91</b>
<b>5.3 UNIVARIATE ANALYSIS.....</b>	<b>93</b>

<b>5.4</b>	<b>CORRELATION OF ALL THE VARIABLES .....</b>	<b>102</b>
<b>5.5</b>	<b>REGRESSION ANALYSIS AND TEST OF HYPOTHESES .....</b>	<b>108</b>
<b>5.6</b>	<b>DISCUSSION OF EMPIRICAL RESULTS .....</b>	<b>117</b>
<b>5.7</b>	<b>POLICY IMPLICATION OF EMPIRICAL RESULT .....</b>	<b>119</b>
	<b>CHAPTER SIX .....</b>	<b>120</b>
	<b>SUMMARY OF FINDINGS, RECOMMENDATION AND CONCLUSION .....</b>	<b>120</b>
<b>6.0</b>	<b>INTRODUCTION.....</b>	<b>120</b>
<b>6.1</b>	<b>SUMMARY OF EMPIRICAL FINDINGS .....</b>	<b>120</b>
<b>6.2</b>	<b>CONCLUSION .....</b>	<b>121</b>
<b>6.3</b>	<b>RECOMMENDATIONS.....</b>	<b>122</b>
<b>6.4</b>	<b>CONTRIBUTION TO KNOWLEDGE.....</b>	<b>123</b>
<b>6.5</b>	<b>SUGGESTION FOR FURTHER STUDY.....</b>	<b>124</b>
	<b>REFERENCES.....</b>	<b>125</b>
	<b>APPENDIX I .....</b>	<b>128</b>
	<b>APPENDIX II.....</b>	<b>165</b>
	<b>RESEARCH QUESTIONNAIRE .....</b>	<b>165</b>
	<b>DATA GENERATION ON FARMER’S LIVELIHOOD UNDER THE FADAMA PROJECT .....</b>	<b>165</b>
	<b>SECTION A: PERSONAL DATA .....</b>	<b>165</b>
	<b>SECTION B: FACTORS INFLUENCING PERFORMANCE ON THE FADAMA PROJECT .....</b>	<b>166</b>

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 PREAMBLE**

In developing economies, agricultural procurement systems are essential tools for boosting sustainable farming methods, increasing food security, and raising rural livelihoods (Ikuemonisan et al., 2024). With over 70% of the workforce working in rural areas and accounting for about 24% of the nation's GDP, Nigeria's agricultural sector continues to struggle with institutional coordination, sustainability integration, and procurement efficiency ((National Bureau of Statistics, 2024, PricewaterhouseCoopers, 2020). The National Fadama Development Project (NFDP) stands out in this context as a noteworthy intervention intended to revolutionize agricultural production through creative institutional frameworks and procurement strategies (World Bank, 2024).

Derived from the Hausa term for irrigable land, which refers to low-lying plains with shallow aquifers along major river systems (Adeyinka et al., 2019), the FADAMA project is Nigeria's most extensive three-decade agricultural development project. Under World Bank funding, the project began in 1990 and progressed from a pilot program in seven states to a nationwide intervention that covered all 36 states and the Federal Capital Territory before ending in 2019 (World Bank, 2023). In order to emphasize participatory procurement mechanisms and beneficiary involvement in input acquisition, marketing, and enterprise development, the project's procurement strategy radically changed from centralized government-controlled systems to community-driven development approaches (World Bank, 2010).

The FADAMA project, which included 174 kilometres of rural road construction, veterinary clinics, roads, small bridges, and other infrastructure development, was especially significant in Ondo State because it affected 50,000 households (Ogunleye et al., 2022). Particularly in situations where conventional procurement systems collide with contemporary sustainability standards and community-based development paradigms, the state's implementation experience offers important insights into how institutional arrangements affect sustainable agricultural procurement outcomes (Adebayo et al., 2021).

According to the FADAMA framework, sustainable agricultural procurement has three components: social sustainability through the inclusive involvement of farmers, women, and young people in procurement decisions; economic sustainability through enhanced market access and value chain integration; and environmental sustainability through the promotion of climate-smart agriculture practices (Farmonaut, 2024). Federal Coordinating Units, State Agricultural Development Programs, and locally based Fadama Community Associations were all part of the project's institutional architecture, which produced a multi-tiered procurement system intended to meet sustainability and efficiency requirements (Adeyinka et al., 2019).

Nevertheless, there were substantial institutional obstacles to the adoption of sustainable agricultural procurement through FADAMA (Ikuemonisan et al., 2024). Among these are challenges in coordinating various government agencies, limitations in implementing institutions' capacity, a lack of integration of social and environmental protections into procurement procedures, and inadequate sustainability outcome monitoring systems (Ogunleye et al., 2022). There are inherent conflicts that necessitate careful institutional navigation because of the difficulty of managing procurement at the federal, state, and local levels while guaranteeing compliance with national regulatory frameworks and World Bank procurement guidelines (World Bank, 2020).

The necessity of procurement systems that strike a balance between social justice, environmental stewardship, and economic efficiency is becoming more and more highlighted in the conversation surrounding agricultural development today (Farmonaut, 2024). The experience of the FADAMA project in Ondo State provides important insights into how institutional factors can either support or impede the accomplishment of sustainable procurement goals (Adebayo et al., 2021). While encouraging involvement and ownership, the project's community-driven approach also highlighted difficulties in guaranteeing technical capacity for sustainable procurement practices at the local level (Ikuemonisan et al., 2024).

Examining FADAMA's institutional aspects is important for reasons that go beyond scholarly research and have real-world policy ramifications for Nigeria's continuous agricultural transformation program (PricewaterhouseCoopers, 2020). Given the nation's dedication to accomplishing the Sustainable Development Goals, especially SDGs 2 (Zero Hunger) and 12

(Responsible Consumption and Production), it is imperative to comprehend how institutional frameworks can successfully incorporate sustainability principles into agricultural procurement in order to inform future policy design and implementation strategies (Farmonaut, 2024).

This case study of FADAMA in Ondo State therefore contributes to broader discourse on institutional development for sustainable agriculture in Sub-Saharan Africa, where similar challenges of coordination, capacity, and sustainability integration persist across multiple countries and projects (Ikuemonisan et al., 2024). The analysis seeks to identify institutional innovations that can enhance sustainable procurement while addressing systemic constraints that limit effectiveness and impact sustainability in agricultural development programs (Adebayo et al., 2021).

## **1.2 STATEMENT OF THE PROBLEM**

An important case study of the difficulties in sustainable agricultural procurement in developing nations is the Federal Agricultural Development Programme (FADAMA) project in Ondo State, Nigeria. The implementation of the project has been seriously hampered by institutional failures that undercut its primary sustainability objectives and rural development goals, despite significant World Bank financial investments and extensive policy frameworks (Adebayo & Ogunlade, 2020; World Bank, 2019).

The fundamental gap between institutional design and actual implementation, especially in sustainable agricultural procurement systems, is the main obstacle facing the FADAMA project in Ondo State (Oladele & Adebayo, 2018). Despite being conceived with strong theoretical frameworks that emphasize transparent procurement procedures and participatory development, the reality shows a complicated web of institutional failures that have undermined these goals and established structural obstacles to successful agricultural transformation (Salami et al., 2021). In Ondo State, stakeholder participation, which was first thought to be the project's pillar

has ironically turned into its biggest flaw (Akinbile & Adesanya, 2019). Instead of improving project outcomes, the participation of government representatives, project implementers, community leaders, and private sector actors has continuously had the opposite effect (Ogundipe & Martins, 2020). This detrimental contribution has systematically weakened project goals and jeopardized long-term sustainability through a number of crucial mechanisms.

Stakeholder actions that put their own interests ahead of project goals have seriously hampered the acquisition of agricultural equipment and raw materials. According to beneficiary reports and field observations in Ondo State, farmers have been routinely supplied with subpar agricultural equipment, which has led to frequent breakdowns, decreased productivity, and higher maintenance costs that rural farmers cannot afford (Fadele et al., 2021). Instead of technical expertise and quality standards, personal connections and unethical behaviour have influenced the selection of suppliers and vendors, resulting in the purchase of subpar goods that fall short of the fundamental needs for sustainable agricultural production (Ademola & Ogunniyi, 2020).

One particularly damaging factor in the execution of the FADAMA project has been identified as embezzlement (Tijani & Adebayo, 2019). Through intricate schemes involving numerous stakeholders at various institutional levels, financial resources allotted for different project activities have been diverted from their intended purposes (Okafor & Nwankwo, 2021). In addition to lowering the actual resources available for agricultural development, this money diversion has also led to a culture of impunity that permeates the entire project structure (Adeyemi & Ogundipe, 2020). Stakeholder complicity, insufficient financial controls, and weak oversight mechanisms that see the project as a chance for personal enrichment rather than

community development have all contributed to the embezzlement practices (Salami et al., 2021).

Chronic inefficiencies in the FADAMA project's supply chain management have led to the unavailability of essential agricultural supplies at the most critical times. Though procurement and distribution systems have continuously failed to deliver inputs like fertilizers, seeds, and pesticides during the proper planting and growing seasons, the timing of agricultural activities is essential for maximum productivity. Stakeholders who manipulate procurement procedures to further their own agendas rather than meeting the needs of the community have made this misalignment between supply and demand worse.

Inadequate and badly planned training programs have seriously weakened the human capacity development component. Farmers in Ondo State have not received adequate training that takes into account their unique needs and challenges, even though significant resources have been allocated for capacity building. Training initiatives have frequently been shallow, ill-conceived, and conducted by untrained individuals who lack the knowledge and experience needed to produce significant skill improvement. Stakeholders who see training programs as chances for their own financial gain rather than as authentic capacity building exercises have contributed to this inadequacy.

Weak governance structures that fall short in providing sufficient oversight and accountability mechanisms have been identified as a defining feature of the institutional framework overseeing the FADAMA project in Ondo State. Lack of effective monitoring and assessment mechanisms has produced a climate in which subpar work and unethical behaviour flourish with no repercussions. Due to a lack of clear accountability frameworks, ineffective sanctions for

misconduct and non-performance, and weak leadership, the institutional culture has normalized inefficiency, corruption, and the pursuit of personal interests at the expense of project objectives.

The absence of openness and competitive bidding practices that ought to regulate public procurement has made procurement procedures even more difficult. Rather than technical proficiency and competitive pricing, the selection of contractors, suppliers, and service providers has been impacted by political considerations, corrupt practices, and personal relationships. This departure from accepted procurement procedures has led to exorbitant expenses, poor quality outputs, and the exclusion of capable vendors who might offer better value.

These institutional difficulties have an effect on Ondo State's overall agricultural development environment in addition to the project's immediate results. Rural communities now doubt the efficacy of government-led development programs as a result of the FADAMA project's inability to meet its goals. A vicious cycle of unsuccessful development interventions has resulted from this breakdown of trust, which has made it more difficult for later development programs to win community support and participation.

These institutional failures have also jeopardized aspects of environmental sustainability. Inappropriate agricultural technology and input purchases have resulted in environmentally harmful practices that go against the project's professed commitment to sustainable development. Farmers continue to employ unsustainable farming methods that reduce soil fertility, contaminate water sources, and worsen the environment as a result of inadequate training and support.

The institutional difficulties that define Ondo State's implementation have weakened the goals of social inclusion and gender equality. Because established networks that frequently exclude vulnerable populations are favoured by corrupt practices and personal relationships governing

resource allocation, procurement processes have failed to ensure equitable access to project benefits for women and marginalized groups. Existing disparities in agricultural development have been sustained by inadequate training programs that have also failed to address the unique needs and limitations faced by women farmers and other marginalized groups.

Given the current circumstances, comprehensive and urgent interventions are needed to address the institutional issues that have compromised effectiveness. The cumulative effect of unfavorable stakeholder contributions has produced a complicated web of issues that call for methodical investigation and focused fixes. The project's potential to support sustainable agricultural development and rural transformation in Ondo State will remain unrealized if these basic institutional drivers and challenges are not addressed. This will lead to resource waste and lost opportunities to improve the livelihoods of rural communities.

Therefore, in order to improve the sustainability and efficacy of the state's agricultural procurement systems, there is an urgent need for thorough research that can pinpoint the institutional drivers and difficulties that define the implementation of the FADAMA project in Ondo State, examine the intricate relationships between various stakeholders and how they contribute to project outcomes, and formulate workable solutions for these issues.

### **1.3 RESEARCH QUESTIONS**

The following research questions guides the study:

(i) Has the implementation of procurement delivery under the FADAMA project enhanced food security, sustainability, improved livelihood of farmers and increased agricultural productivity in various local governments in Ondo State?

(ii) What are the challenges that affect effective implementation of sustainable agricultural procurement in the FADAMA project in Ondo State?

(iii) How effective are the current sustainable agricultural procurement strategies in achieving improved agricultural productivity and sustainability in Ondo State?

#### **1.4 RESEARCH OBJECTIVES**

The broad objective of this study is to examine the interrelationship between institutional drivers, challenges and sustainability of agricultural procurement practices of FADAMA project in Ondo state. The specific Objectives are to:

(i) Assess the effectiveness of procurement delivery under the FADAMA project across selected local government areas in Ondo State.

(ii) Unravel the challenges hindering effective implementation of sustainable agricultural procurement in the FADAMA project in Ondo State.

(iii) Examine the effectiveness of current sustainable procurement strategies in achieving improved agricultural productivity and sustainability in Ondo State.

#### **1.5 RESEARCH HYPOTHESES**

The following research hypotheses are presented in their null forms.

**H<sub>01</sub>:** Procurement delivery under the FADAMA projects has not been significantly effective across local government areas in Ondo State

**Ho2:** Institutional, administrative, and technical challenges do not significantly affect the effective implementation of sustainable agricultural procurement in FADAMA project in Ondo State.

**Ho3:** Current sustainable agricultural procurement strategies adopted in the FADAMA project do not significantly contribute to improved agricultural productivity and long term sustainability in Ondo State.

## **1.6 SIGNIFICANCE OF THE STUDY**

The FADAMA project framework's study on the institutional drivers and obstacles of sustainable agricultural procurement is highly relevant to various facets of agricultural development, policymaking, and sustainable procurement practices in Nigeria and other developing nations. The study adds to the expanding corpus of research on sustainable procurement in agricultural settings, especially in developing nations where there are still few of these studies. Walker and Brammer (2009) state that there is knowledge gap about the application of sustainable procurement in resource-constrained environments because most of the research on the topic has concentrated on developed economies. By presenting empirical data from Nigeria's agriculture industry, this study fills this knowledge gap and sheds light on the ways institutional frameworks affect sustainable procurement practices in sub-Saharan Africa.

The study builds on North's (1990) groundbreaking research on institutions and economic performance by applying institutional theory to agricultural procurement contexts. Research on the influence of formal and informal institutions on procurement decisions in the FADAMA project advances knowledge of institutional dynamics in agricultural development programs, especially those supported by the World Bank and other international development

organizations. One of Nigeria's longest-running agricultural development projects, the project began in 1990 and is currently in its third phase. It offers a rich institutional context for analysis.

For policymakers creating and carrying out agricultural development programs, the findings offer vital evidence. Early findings from the World Bank's Fadama III project in 35 Nigerian states and the Federal Capital Territory highlight the scope and importance of this intervention on a national level. The study provides procurement professionals with useful advice on how to handle institutional obstacles in sustainable agricultural procurement. Grandia (2016) emphasizes that successful implementation of sustainable procurement requires an understanding of context-specific barriers, so practitioners operating in comparable institutional environments will find value in the study's findings.

The importance of the study goes beyond more general development and sustainability objectives. About 70% of Nigeria's rural population works in agriculture (FAO, 2020), so sustainable agricultural procurement methods are essential to reaching several SDGs, such as SDG 1 (No Poverty), SDG 2 (Zero Hunger), and SDG 12 (Responsible Consumption and Production). The study tackles the crucial discrepancy between the goals of policies and the results of their implementation in sustainable procurement. The study's emphasis on institutional factors is especially pertinent for enhancing program effectiveness because, as Brammer and Walker (2011) point out, institutional barriers, rather than technical limitations are the reason why many sustainable procurement initiatives fail.

In order to investigate institutional influences on procurement practices, the study uses a thorough case study methodology that blends quantitative and qualitative techniques. Procurement studies, which usually rely on single-method approaches, lack the depth and

breadth of analysis that this methodological approach offers (Srivastava, 2013). Ondo State's empirical data offers localized insights that can guide policy decisions at the state level and advance knowledge of agricultural procurement issues at the federal level.

Numerous stakeholder groups greatly benefit from the study. It offers government organizations evidence-based suggestions for enhancing institutional frameworks and procurement systems. Future program design strategies are informed by the knowledge development partners acquire about the ways in which institutional contexts impact project outcomes. As the main recipients of FADAMA interventions, farmers and agricultural cooperatives gain from research findings that can result in better procurement procedures and increased involvement in agricultural value chains.

Despite being centred on Nigeria, the study's conclusions are applicable to agricultural development initiatives in sub-Saharan Africa and other developing nations dealing with comparable institutional issues. Many developing nations carrying out agricultural development programs with foreign funding share the institutional elements found in this study, such as governance structures, regulatory frameworks, and cultural norms. This study contributes to the theoretical understanding and practical application of sustainable procurement practices in agricultural development contexts by thoroughly examining the institutional drivers and challenges in sustainable agricultural procurement. Its implications are applicable to similar contexts across the developing world.

## **1.7 SCOPE OF THE STUDY**

This study is limited to investigating the institutional drivers and challenges that shape sustainable agricultural procurement under the FADAMA project in Ondo State. Specifically, it examines how the nature of the program as a community-driven development initiative influences participation and ownership in procurement processes. The study also considers the organizational structure of FADAMA, which involves collaboration between federal, state, and local-government agencies, donor partners, and FADAMA User Group (FUGs), and how this structure supports or hinders sustainable procurement.

Attention is given to the delivery mechanism, which determines how agricultural inputs, services, and infrastructure are procured and distributed to beneficiaries. The study further explores the role of monitoring and evaluation system in ensuring transparency, accountability, and sustainability of procurement outcomes.

On the side of challenges, the scope covers institutional constraint such as lack of technical training for project beneficiaries and local institutions, which affect their capacity to manage procurement efficiently, and the inadequate or delay funding which creates bottlenecks in the timely execution of procurement activities. By focusing on these institutional drivers and challenges, the study provides insights into how procurement practices with FADAMA project in Ondo State influence sustainable agricultural procurement.

## **CHAPTER TWO**

### **BACKGROUND TO THE STUDY**

#### **2.1 AN OVERVIEW ON AGRICULTURAL PROCUREMENT IN NIGERIA**

In Nigeria, agricultural procurement functions within a sophisticated institutional framework intended to promote economic growth, rural development, and food security. Both public and private sector initiatives are included in the procurement system, with government interventions mainly concentrating on market facilitation, infrastructure development, and input supply. The National FADAMA Development Projects, one of the most extensive rural development initiatives in Nigeria, have had a major influence on the country's agricultural procurement environment.

Since its start, the FADAMA project, named after the Hausa word for irrigable low-lying plains supported by shallow aquifers along major river systems has gone through several stages of development (World Bank, 2012). In order to mobilize resources and take advantage of economies of scale in input procurement and marketing, the project uses a community-driven development approach, grouping beneficiaries into Farmer Cooperative Associations (FCAs) and Federated FCAs (FFCAs) (Lagos State Ministry of Agriculture, 2023). The fragmented nature of Nigerian smallholder agriculture has been successfully addressed by this institutional arrangement.

Improved agricultural inputs, technology, and productive infrastructure are the main goals of procurement activities under the FADAMA framework for rural communities. The impact of the project on beneficiary incomes is clear; FADAMA II increased beneficiary incomes by 63%, and

FADAMA III increased participating households' real incomes by up to 154% in certain cases (World Bank, 2024). The project places special emphasis on acquiring inputs for priority crops that have demonstrated notable yield increases, such as tomatoes, rice, sorghum, and cassava.

Numerous parties are involved in Nigeria institutional framework for agricultural procurement, including the federal and state governments, private sector actors, cooperative organizations, and development partners. This multi-stakeholder approach is best demonstrated by the FADAMA project, which establishes forums for cooperation between community-based organizations, World Bank financing, and government agencies. By aligning with more comprehensive agricultural transformation agendas, this collaborative model has made it possible to scale up development impacts.

## **2.2 POLICY AND REGULATORY FRAMEWORKS**

A number of important frameworks serve as the foundation for the extensive policy and regulatory framework that governs Nigeria's agricultural procurement. The main framework for agricultural sector development is the Agriculture Promotion Policy (APP) 2016-2020, which lays out plans for stakeholders to create a sustainable agribusiness economy that can achieve both economic diversification and food security (S.P.A. Ajibade and Co, 2020). The policy framework places a strong emphasis on how better procurement systems can help agriculture transition from subsistence to commercial enterprise.

The Federal Republic of Nigeria 1999 Constitution lays the groundwork for agricultural policy by directing the state to ensure that all citizens have access to appropriate and sufficient food

(Mondaq, 2021). The legal foundation for government involvement in agricultural procurement and food security programs is provided by this constitutional directive.

The government frameworks and action plans intended to accomplish overall agricultural growth and development are synthesized in Nigeria's national agricultural policy. Achieving self-sustaining growth in all agricultural subsectors and promoting the structural change required for socioeconomic development are the goals of the policy (Osun State Government, 2024). Strong procurement procedures are required for this all-encompassing strategy to be implemented successfully.

### **2.2.1 Monitoring and Evaluation Mechanisms**

To track performance and guarantee accountability, the FADAMA project integrates extensive monitoring and evaluation systems. The project makes use of frameworks for result-based monitoring that quantify results in terms of infrastructure development, yield increases, and income improvements. FADAMA's community-driven development approach necessitates participatory monitoring, in which beneficiary communities actively monitor the status of projects and the use of resources.

FADAMA's agricultural procurement performance indicators include sustainability metrics, infrastructure completion rates, crop productivity metrics, and beneficiary income levels. The efficacy of the project's monitoring systems is demonstrated by its achievement of a 63% income increase under FADAMA II and a 154% increase under FADAMA III (World Bank blogs, 2024). Governmental organizations and development partners conduct routine supervision missions to guarantee adherence to environmental protections and procurement regulations.

### **2.2.2 Role of Procurement Laws**

The FADAMA project's agricultural procurement operations are governed by Nigeria's public procurement regulatory framework, which was created by the Public Procurement Act. Government-funded agricultural interventions are subject to the Act's procurement standards, competitive bidding procedures, and transparency requirements. These regulations guarantee that fairness, competition, and value for money are upheld in procurement procedures.

Important facets of agricultural procurement are covered by the regulatory framework, such as supplier qualification, contract management, contractor selection, and dispute resolution. Procurement laws for the FADAMA project guarantee that community-based procurement operations adhere to professional standards while still being affordable for small businesses and rural cooperatives. Sustainable agricultural development depends on striking a balance between community involvement and regulatory compliance.

### **2.2.3 Transparency and Accountability Mechanisms**

The FADAMA project maintains agricultural procurement transparency through a number of accountability mechanisms. Beneficiary communities must be informed publicly about procurement plans, budgetary allotments, and implementation status under the community-driven approach. The intended beneficiaries of resources are guaranteed to receive them thanks to this grassroots transparency, and procurement choices are made with community priorities in mind.

Mechanisms for accountability include independent monitoring by civil society organizations, frequent audits by government oversight bodies, and grievance procedures that enable communities to report procurement irregularities. To make sure that established protocols are

being followed, the Federal and State Project Coordination Units keep track of procurement records and carry out routine evaluations. International development partners' participation also adds external oversight, raising the bar for accountability.

By making information available to all parties involved, the incorporation of technology into procurement procedures such as digital platforms for contract awards and tender announcements improves transparency. These technological advancements guarantee that procurement decisions are made on the basis of competitive advantage and merit, while also reducing opportunities for corruption.

Assuring that development interventions support sustainable resource management and community welfare, the regulatory framework also places a strong emphasis on social and environmental safeguards in agricultural procurement. Long-term development goals are supported by an environment that is conducive to efficient agricultural procurement thanks to this all-encompassing approach to regulation and accountability.

### **2.3 RELEVANCE OF FADAMA PROJECT IN THE NIGERIAN AGRICULTURAL SECTOR**

The FADAMA project is a cornerstone intervention that tackles important issues in rural development, marking a paradigm shift in Nigeria's approach to agricultural development. The project's comprehensive approach to addressing the core issues ailing Nigerian agriculture, specifically the underutilization of FADAMA lands, makes it relevant. The Hausa term "Fadama" refers to irrigable land, which is typically low-lying plains with shallow aquifers found

along major river systems. The World Bank (2010) states that this area has enormous agricultural potential for Nigeria's agricultural transformation.

FADAMA has had a noteworthy impact on many aspects of agricultural development since its inception. An estimated 2.3 million FADAMA households benefited from the expansion in incomes and wealth derived from previously unavailable services provided by the project, according to Adubi and Okunmadewa's (2008) rapid policy appraisal, which also found that beneficiaries' incomes had increased by roughly 25% as of the mid-term. Given Nigeria's rural poverty problem and the need for sustainable agricultural growth, this income enhancement is especially important. According to the World Bank (2019), the FADAMA project series, which concluded in 2019, became a well-known, national brand of local agricultural development and geographically expanded with FADAMA III.

It is impossible to overestimate the importance of FADAMA's technological component. By providing rural communities with better inputs and contemporary farming methods, the project revolutionized agricultural practices. One of Nigeria's most urgent agricultural issues is low productivity brought on by antiquated farming methods and restricted access to contemporary agricultural inputs; this technological revolution helps to address this issue. FADAMA has established itself as a driving force behind agricultural modernization throughout Nigeria's various agro-ecological zones by offering farmers better seeds, irrigation systems, and cutting-edge farming methods.

FADAMA is especially pertinent to Nigeria's varied agricultural landscape because of its strategic approach of community-driven development. According to Olomola (2018), the National FADAMA Development Project used a community-driven development approach and

involved many stakeholders from the very beginning of the project's execution. From the rice-producing regions in the north to the root crop regions in the south, this participatory approach has been essential in meeting the unique needs of various agricultural zones throughout Nigeria.

The project's national significance in transforming rural development was emphasized in the World Bank's 2020 Implementation Completion Report. FADAMA brought a decentralized approach that empowered local communities and improved project sustainability. Prior to this, the majority of rural projects in Nigeria were managed centrally, with decisions made at higher levels of government.

## **2.4 CHALLENGES TO SUSTAINABLE AGRICULTURAL PROCUREMENT IN NIGERIA**

Nigeria faces numerous obstacles in its pursuit of sustainable agricultural procurement, including those related to institutions, the environment, and the economy. All of these issues make it more difficult for the nation to attain agricultural sustainability and food security, which calls for extensive institutional and policy changes.

One of the biggest obstacles to sustainable agricultural procurement is climate variability. Onyeaka et al. (2024) have shown that climate change makes agricultural problems worse by increasing the frequency and intensity of droughts, floods, and erratic weather patterns. These events disrupt farming operations and jeopardize food security. According to a thorough study by Muhammad et al. (2023), Nigerian agriculture has been severely disrupted by climate change, with unpredictable rainfall, rising temperatures, and extreme weather events resulting in lower crop yields, more pest and disease pressure, and land degradation.

Another major obstacle to sustainable procurement is environmental degradation. Food security in Nigeria is currently in a terrible state, according to Isah et al. (2022), because of a number of factors, including terrorism, climate change, and rapidly rising energy prices. According to the research, inadequate land management techniques and the lack of comprehensive environmental policies that combine agricultural sustainability with procurement strategies exacerbate these environmental issues.

The agricultural sector in Nigeria faces structural issues that severely restrict its capacity for sustainable procurement. There is proof that Nigeria is already facing environmental problems brought on by climate change and its effects, according to a systematic review by Enete and Amusa (2021). This has amply demonstrated the necessity of knowledge-based strategies to assist in the planning of appropriate mitigation and adaptation measures for the nation. Due to these systemic flaws, agricultural output frequently falls short of the quality requirements needed for sustainable procurement, which restricts access to both domestic and foreign markets.

Agricultural vulnerability varies by region, which makes procurement more difficult. A 2019 survey by Roberts et al. (2022) showed that Northern Nigeria had a greater reliance on agricultural livelihoods than the rest of the country, with 84% of households in the northeast producing crops and 69% raising livestock, compared to 70% of households nationwide. The national food procurement systems are at serious risk due to the regional concentration of agricultural activities in climate-vulnerable areas.

Farmers' limited ability to adapt is a clear indication of the socioeconomic aspect of procurement challenges. According to Apata (2010), 90% of farmers were aware of the effects of climate change, and 75% had implemented different coping mechanisms. This suggests that farmers are

aware of the threat but lack the resources necessary for effective adaptation. For sustainable procurement systems, this awareness-capacity gap is a major obstacle.

Nigeria is experiencing rising temperatures, unpredictable rainfall patterns, droughts, floods, and desertification, according to research by Faruq et al. (2022). These factors are lowering agricultural yields, increasing food insecurity, and making millions of people who depend on agriculture more vulnerable. Due to the uncertainty created by these climate-related issues, it is challenging to set up trustworthy procurement procedures that can ensure a steady supply and high quality.

Sustainable procurement initiatives are made more difficult by issues with governance and the institutional framework. According to Adebayo et al. (2023), increased droughts, desertification, pests and diseases, erratic weather, lower fishery productivity, and restricted access to resources and technology are some of the effects of climate change on Nigeria's food security. Nigeria's fragmented governance system frequently lacks the coordinated institutional responses needed to address these complex issues.

Systems of agricultural production and procurement have been severely disrupted by security issues, especially in Northern Nigeria. Insurgent groups' actions have uprooted farming communities, demolished agricultural infrastructure, and fostered an atmosphere of unpredictability that deters investment in environmentally friendly farming methods. Because it impacts both the demand side of market access and the supply side of agricultural production, this security dimension complicates the planning and execution of procurement.

## **2.5 AGRICULTURAL PROCUREMENT TRENDS IN ONDO STATE**

The FADAMA project's implementation has significantly changed the agricultural procurement environment in Ondo State, reflecting both systemic issues and opportunities within Nigeria's agricultural value chain. Procurement patterns in the state show a move toward community-driven development models that give local value addition and agricultural production top priority.

With rice yields rising by 94.8% (from 2.11MT/ha to 4.11MT/ha) and cassava yields increasing by 105.3% (from 12.89MT to 26.46MT), Ondo State has seen significant increases in agricultural productivity. Because more local production capacity allows for greater self-reliance and less reliance on imported food commodities and agricultural inputs, these improvements have a direct impact on procurement patterns.

In accordance with national food security goals, the procurement framework for Ondo State's FADAMA implementation places a strong emphasis on priority crops like tomatoes, rice, sorghum, and cassava. Grants are specifically given for agricultural inputs and services, labor-intensive agricultural infrastructure, such as access roads to farm settlements, and agricultural assets. Current procurement activities target farmers who grow maize and cassava. The state's strategic emphasis on crops with high local consumption and market potential is reflected in this focused approach.

The success of using agricultural procurement to generate income has been impressive. The economic impact of better procurement systems and market connections was demonstrated by the 127.5% increase in the average nominal income among FADAMA beneficiaries, which went from N103,170.00 to N234,687.00. This increase in income shows that smallholder farmers and

formal procurement channels are more closely integrated which lowers post-harvest losses and enhances market accessibility.

Gender considerations within agricultural value chains are also reflected in the state's procurement trends. According to research from comparable FADAMA implementations, 58.8 percent of participants (mostly women) worked in agro-processing, 25.4 percent in farming, 12.5 percent in poultry, and 2.9 percent in fish farming. This suggests that procurement systems need to take into account a variety of agricultural activities as well as gender-specific participation patterns.

## **2.6 STAKEHOLDER ENGAGEMENT (FARMERS ASSOCIATIONS VALIDATION, COOPERATIVES, NGOs, AND DONOR INVOLVEMENT)**

A variety of actors are involved in the FADAMA project's stakeholder engagement, including the Board of Directors, suppliers, cooperatives, NGOs, farmers' associations, donors, and government agencies. In Ondo State, Nigeria, the results of sustainable agricultural procurement are directly impacted by the complex institutional landscape created by this multi-stakeholder approach.

### **2.6.1 Primary Stakeholder Groups and Their Roles**

#### **2.6.1.1 Coordination Mechanisms and Institutional Arrangements**

Stakeholder engagement in the FADAMA project is complex, requiring advanced institutional arrangements and coordination mechanisms that can help diverse actors communicate, make decisions, and allocate resources effectively. In order to ensure that all stakeholder voices are

heard and that timely decision-making and implementation are possible, these mechanisms must strike a balance between the necessity of efficiency and the imperative of inclusive participation. Stakeholder advisory groups and project steering committees are examples of formal coordination structures that offer forums for frequent communication and cooperative planning between various stakeholder groups. Informal networks and relationships serve as a supplement to these structures and are frequently just as crucial in promoting cooperation and settling disputes. The presence of a common vision and goals among stakeholders, the calibre of the leadership, and the availability of resources all affect how well these coordination mechanisms work.

Stakeholder participation in FADAMA procurement activities is governed by institutional arrangements that mirror broader development cooperation trends toward more inclusive and participatory methods. However, power disparities, capacity limitations, and conflicting stakeholder priorities also pose serious problems for these arrangements. Sustained investment in relationship management and capacity building, along with continued focus on institutional development and reform, are necessary to meet these challenges.

### **2.6.1.2 Challenges and Opportunities in Stakeholder Engagement**

For sustainable agricultural development, the FADAMA project's stakeholder engagement environment offers both formidable obstacles and exciting possibilities. The inability of certain stakeholder groups to effectively participate in intricate procurement procedures, the coordination issues brought on by their disparate interests and skill sets, and the possibility of conflicts between short-term project goals and long-term sustainability objectives are some of the main obstacles.

Another major issue is power disparities among stakeholders, since some groups may have more influence over decision-making than others. This may lead to procurement choices that marginalize some stakeholders while favouring others, which could compromise the project's goals of poverty alleviation and inclusive development. Deliberate efforts must be made to ensure that marginalized groups have meaningful participation in decision-making processes and to strengthen their capacity in order to address these power imbalances.

The FADAMA project stakeholder engagement strategy offers substantial prospects for sustainable agricultural development in spite of these obstacles. Diverse stakeholders can improve the efficacy and sustainability of procurement activities by bringing together complementary resources, expertise, and capabilities. The likelihood of successful implementation and long-term sustainability is increased when procurement decisions are responsive to local needs and priorities, which is another benefit of the participatory approach.

### **2.6.1.3 Implications for Sustainable Agricultural Procurement**

The FADAMA project's experiences with stakeholder engagement offer important lessons for the planning and execution of sustainable agricultural procurement programs in comparable settings. It is impossible to overestimate the significance of creating robust institutional frameworks that can enable efficient coordination among various stakeholders. These frameworks need to be adaptable enough to take into account the various interests and capacities of stakeholders while upholding unambiguous performance and accountability standards.

The experience of the project also emphasizes how crucial institutional development and capacity building are to facilitating successful stakeholder engagement. This encompasses organizational capacity for communication, coordination, and conflict resolution in addition to

technical capacity for procurement procedures. To make sure that stakeholder engagement advances rather than impedes project goals, consistent investment in these areas is necessary.

The FADAMA experience also highlights the necessity of flexible management strategies that can react to shifting conditions and new stakeholder engagement issues. This calls for consistent coordination and stakeholder relationship monitoring and assessment, as well as the adaptability to modify strategies in light of evolving circumstances and lessons learned.

Although complicated and occasionally difficult, the FADAMA project's multi-stakeholder approach offers a stronger basis for sustainable agricultural procurement than strategies that depend on lone actors or small partnerships. The project develops resilience against a range of risks and challenges and establishes multiple avenues for accomplishing its goals by involving diverse stakeholders with complementary skills and interests. This strategy has the potential to produce more impactful and long-lasting results in agricultural development projects, even though it necessitates a large investment in coordination and capacity building.

The FADAMA project's foundational layer of stakeholder engagement is made up of farmers' associations and cooperatives. These groups facilitate access to resources, information, and markets by acting as a bridge between individual farmers and more extensive institutional frameworks. Farmers' associations in southwest Nigeria have historically been important for adopting technology and acquiring inputs, according to Adebayo and Adeola (2008). However, the effectiveness of these associations varies greatly depending on organizational structure, leadership calibre, and outside support systems.

Farmers' associations' participation in FADAMA procurement procedures demonstrates the program's dedication to inclusive growth as well as the pragmatic need to collaborate with pre-existing community structures. In the procurement ecosystem, these associations perform a

number of tasks, including aggregating demand for agricultural inputs, facilitating group negotiations with suppliers, and offering quality control procedures for goods and services that are purchased. However, their efficacy is frequently hindered by a lack of financial resources, a lack of technical expertise, and weak governance frameworks that can compromise accountability and transparency in procurement procedures.

Ogundipe and Ogunniyi's (2012) research emphasizes how important social capital is to the success of farmer cooperative participation in agricultural development initiatives. Associations with strong social cohesion and well-established trust networks are better able to participate in procurement activities within the FADAMA framework, whereas those beset by internal strife or ineffective leadership find it difficult to effectively represent the interests of their members. For program implementers looking to guarantee fair access to procurement opportunities across various communities, this disparity in organizational capacity poses serious difficulties.

#### **2.6.1.4 Non-Governmental Organizations as Facilitators and Advocates**

In the FADAMA stakeholder ecosystem, non-governmental organizations (NGOs) hold a special place as advocates, capacity builders, and facilitators all at once. Their participation in the project is indicative of the increasing understanding of the role that civil society plays in advancing sustainable agricultural development and guaranteeing accountability in public procurement procedures. NGOs are crucial partners in complicated development projects because, as Chambers (2007) documents, they offer significant experience in community mobilization, participatory approaches, and advocacy for marginalized groups.

NGOs participate in FADAMA procurement activities in a number of ways, ranging from advocating for legislative changes that support sustainable farming methods to providing direct technical assistance to farmers and cooperatives. Particularly when it comes to creating and

executing procurement strategies that are both technically sound and culturally appropriate, local NGOs' in-depth understanding of community dynamics and cultural contexts is invaluable. Their participation frequently helps stakeholders communicate and coordinate more effectively by bridging the gap between institutional requirements and grassroots needs.

There are difficulties in the relationship between NGOs and other FADAMA project stakeholders, though. NGOs and government agencies may clash over funding and recognition, and cooperation may be hampered by disparities in organizational culture and methods of operation. Furthermore, local NGOs' ability to offer technical assistance for intricate procurement procedures is frequently restricted, necessitating continuous training and institutional development investments.

#### **2.6.1.5 Donor Involvement and International Partnerships**

One important aspect of stakeholder engagement that has a big impact on procurement practices and policies is donor involvement in the FADAMA project. As the program's main sponsor, the World Bank brings with it international norms and practices that need to be balanced with regional priorities and contexts. Opportunities for knowledge transfer as well as difficulties with institutional alignment and cultural adaptation are brought about by this dynamic.

International donors' participation in FADAMA procurement initiatives is indicative of larger developments in development cooperation, where transparency, environmental sustainability, and results-based management are becoming more and more important. According to Riddell (2007), donor participation can improve the technical quality and accountability of procurement procedures, but it can also impose external priorities and build dependencies that might not be in line with local capabilities and needs. This conflict is especially noticeable in the FADAMA

context when applying global procurement standards to regional settings where traditional customs and unofficial institutions continue to have sway.

The need to strike a balance between efficiency and participation further complicates the relationship between donors and other FADAMA project stakeholders. Donor requirements for transparent procurement procedures and competitive bidding are meant to prevent corruption and guarantee value for money, but they can also put small-scale farmers and local suppliers at a disadvantage because they lack the technical know-how to handle complicated procurement processes. Innovative methods of institutional development and capacity building that can close the gap between global norms and local realities are needed to meet this challenge.

#### **2.6.1.6 Government Institutions and Regulatory Frameworks:**

The FADAMA project's stakeholder engagement environment is significantly shaped by federal, state, and local government organizations. From developing policies and supervising regulations to implementing them directly and providing services, their involvement takes many forms. With its many levels of government and overlapping jurisdictions, Nigeria's federal system is complicated, which presents both opportunities and difficulties for efficient stakeholder coordination.

The official governance framework that governs government oversight is represented by the FADAMA Board of Directors. This board is the main decision-making body for project implementation and resource allocation, and it is made up of representatives from different government agencies and stakeholder groups. However, the quality of representation, the openness of decision-making procedures, and the ability of board members to balance the

interests of various stakeholders all have a significant impact on how effective this governance structure is.

Another important stakeholder group whose involvement has a big impact on project outcomes is procurement officers in government institutions. These experts are in charge of managing supplier relationships, making sure procurement laws are followed, and upholding standards of quality for products and services that are purchased. The success of sustainable agricultural procurement initiatives depends on their ability to manage intricate regulatory frameworks while still being receptive to community needs.

Bureaucratic inefficiencies, a lack of technical expertise, and insufficient funding for operating costs frequently limit government institutions' participation in FADAMA procurement activities. These limitations may cause procurement procedures to take longer than expected, lower the calibre of goods and services acquired, and make it harder to adapt to the shifting needs of the community. Sustained investment in institutional capacity building and administrative procedure reform to improve accountability and efficiency are necessary to address these issues.

#### **2.6.1.7 Suppliers and Private Sector Engagement**

One of the most important aspects of stakeholder involvement in the FADAMA project is the involvement of suppliers of agricultural equipment and raw materials. These private sector players are the direct suppliers of the products and services that support increased agricultural output and productivity. Project outcomes and long-term sustainability are greatly impacted by their ability to provide high-quality products at competitive prices while upholding sustainable business practices.

There is both cooperation and conflict in the relationship between suppliers and other FADAMA project stakeholders. Although suppliers offer necessary products and services, the project's

social and environmental goals may occasionally clash with their profit-driven interests. Clear contractual agreements, quality control procedures, and incentive schemes that match the objectives of the project with the interests of the private sector are necessary for the careful management of this conflict.

The significance of creating sustainable supply chains that can continue to operate after the project's completion is emphasized by research by Dorward et al. (2005). Building enduring relationships with suppliers who are dedicated to serving rural markets and upholding quality standards is necessary in the context of FADAMA. However, suppliers may find it challenging to sustain profitable operations due to the low purchasing power of smallholder farmers and the high transaction costs of catering to dispersed rural markets, which could jeopardize the sustainability of procurement agreements.

## **2.6.2 Coordination Mechanisms and Institutional Challenges**

### **2.6.2.1 Farmers' Associations and Cooperative Structures**

Cooperatives and farmers' associations make up the core layer of stakeholder engagement for the FADAMA project. By serving as a link between individual farmers and larger institutional frameworks, these organizations make it easier for people to access resources, information, and markets. According to Adebayo and Adeola (2008), farmers' associations have long played a significant role in southwestern Nigeria's adoption of technology and acquisition of inputs. However, organizational structure, leadership quality, and external support networks all have a significant impact on how effective these associations are.

The involvement of farmers' associations in FADAMA procurement processes shows the program's commitment to inclusive growth and the practical necessity of working with existing community structures. These associations carry out a variety of functions within the procurement ecosystem, such as combining demand for agricultural inputs, assisting in group discussions with suppliers, and providing quality control protocols for purchased goods and services. However, a

lack of funding, a lack of technical know-how, and inadequate governance frameworks that can jeopardize accountability and transparency in procurement processes usually limit their effectiveness.

Social capital is crucial to the success of farmer cooperative participation in agricultural development programs, according to research by Ogundipe and Ogunniyi (2012). Within the FADAMA framework, associations with strong social cohesion and established trust networks are better equipped to engage in procurement activities, while those plagued by internal conflict or incompetent leadership struggle to adequately represent the interests of their members. This discrepancy in organizational capacity presents significant challenges for program implementers seeking to ensure equitable access to procurement opportunities across diverse communities.

#### **2.6.2.2 Non-Governmental Organizations as Facilitators and Advocates**

Non-governmental organizations (NGOs) have a unique role in the FADAMA stakeholder ecosystem as advocates, capacity builders, and facilitators. Their involvement in the project demonstrates the growing recognition of the contribution civil society makes to promoting sustainable agricultural development and ensuring accountability in public procurement processes. According to Chambers (2007), NGOs provide substantial expertise in community mobilization, participatory approaches, and advocacy for marginalized groups, making them essential partners in complex development projects.

NGOs take part in FADAMA procurement activities in a variety of ways, from directly assisting farmers and cooperatives with technical assistance to lobbying for legislative changes that promote sustainable farming practices. Local NGOs' extensive knowledge of community dynamics and cultural contexts is especially helpful when developing and implementing procurement strategies that are both technically sound and culturally appropriate. By bridging the

gap between institutional requirements and grassroots needs, their participation frequently facilitates more effective communication and coordination among stakeholders.

However, there are issues in the relationship between NGOs and other stakeholders in the FADAMA project. Disparities in organizational culture and operational procedures may hinder collaboration, and NGOs and government organizations may disagree over recognition and funding. Additionally, it is often difficult for local NGOs to provide technical assistance for complex procurement processes, which calls for ongoing training and investments in institutional development.

### **2.6.2.3 Donor Involvement and International Partnerships**

Donor participation in the FADAMA project is a crucial component of stakeholder engagement that significantly affects procurement procedures and regulations. The World Bank, the program's primary sponsor, brings with it global standards and procedures that must be balanced with local contexts and priorities. This dynamic creates both challenges with institutional alignment and cultural adaptation and opportunities for knowledge transfer.

The involvement of foreign donors in FADAMA procurement programs reflects broader trends in development cooperation, where results-based management, environmental sustainability, and transparency are becoming increasingly crucial. Donor involvement can enhance the technical quality and accountability of procurement processes, but it can also impose external priorities and create dependencies that may not align with local needs and capabilities (Riddell, 2007). When applying international procurement standards to local contexts where customs and informal institutions still hold sway, this conflict is particularly apparent in the context of FADAMA.

The relationship between donors and other stakeholders in the FADAMA project is further complicated by the need to balance efficiency and participation. Donor requirements for competitive bidding and transparent procurement processes are intended to ensure value for money and prevent corruption, but they can also disadvantage local suppliers and small-scale farmers who lack the technical know-how to manage complex procurement procedures. To meet this challenge, creative approaches to capacity building and institutional development are required that can bridge the gap between local realities and global norms.

#### **2.6.2.4 Government Institutions and Regulatory Frameworks**

Donor participation in the FADAMA project is one crucial component of stakeholder engagement that significantly affects procurement procedures and regulations. International norms and practices brought by the World Bank, the program's primary sponsor, must be balanced with local priorities and circumstances. This dynamic creates both opportunities for knowledge transfer and challenges for cultural adaptation and institutional alignment.

The involvement of foreign donors in FADAMA procurement programs is a reflection of broader trends in development cooperation, where results-based management, environmental sustainability, and transparency are becoming increasingly crucial. Donor participation can enhance the technical quality and accountability of procurement processes, but it can also impose external priorities and create dependencies that may not align with local needs and capabilities (Riddell, 2007). When applying global procurement standards to regional settings where traditional customs and unofficial institutions still hold sway, this conflict is particularly apparent in the context of FADAMA.

The relationship between donors and other FADAMA project stakeholders is further complicated by the need to balance efficiency and participation. In addition to ensuring value for money and

preventing corruption, donor requirements for competitive bidding and transparent procurement processes can disadvantage small-scale farmers and local suppliers who lack the technical know-how to manage complex procurement procedures. To meet this challenge, new approaches to capacity building and institutional development are required that can bridge the gap between local realities and global norms.

#### **2.6.2.5 Suppliers and Private Sector Engagement**

Donor participation in the FADAMA project is a significant component of stakeholder engagement that significantly influences procurement procedures and regulations. The World Bank, as the program's primary sponsor, brings with it global standards and practices that must be balanced with local contexts and priorities. This dynamic creates challenges for institutional alignment and cultural adaptation, as well as opportunities for knowledge transfer.

The involvement of foreign donors in FADAMA procurement projects is a reflection of broader trends in development cooperation, where results-based management, environmental sustainability, and transparency are becoming increasingly crucial. Participation by donors can enhance the technical quality and accountability of procurement processes, but it can also impose external priorities and create dependencies that may not be in line with local needs and capabilities (Riddell, 2007). When implementing international procurement standards in local contexts where customs and informal institutions still hold sway, this conflict is particularly apparent in the context of FADAMA.

Relationships between donors and other FADAMA project stakeholders are made more difficult by the necessity to balance efficiency and participation. Although donor requirements for competitive bidding and transparent procurement processes are intended to ensure value for money and prevent corruption, they may also disadvantage local suppliers and small-scale

farmers who lack the technical know-how to manage complex procurement procedures. To address this challenge, creative approaches to capacity building and institutional development are required that can bridge the gap between local realities and global norms.

#### **2.6.2.6 Coordination Mechanisms and Institutional Arrangements**

Stakeholder engagement in the FADAMA project is complex, requiring advanced institutional arrangements and coordination mechanisms that can help diverse actors communicate, make decisions, and allocate resources effectively. In order to ensure that all stakeholder voices are heard and that timely decision-making and implementation are possible, these mechanisms must strike a balance between the necessity of efficiency and the imperative of inclusive participation. Stakeholder advisory groups and project steering committees are examples of formal coordination structures that offer forums for frequent communication and cooperative planning between various stakeholder groups. Informal networks and relationships serve as a supplement to these structures and are frequently just as crucial in promoting cooperation and settling disputes. The presence of a common vision and goals among stakeholders, the calibre of the leadership, and the availability of resources all affect how well these coordination mechanisms work.

Stakeholder participation in FADAMA procurement activities is governed by institutional arrangements that mirror broader development cooperation trends toward more inclusive and participatory methods. However, power disparities, capacity limitations, and conflicting stakeholder priorities also pose serious problems for these arrangements. Sustained investment in relationship management and capacity building, along with continued focus on institutional development and reform, are necessary to meet these challenges.

### **2.6.2.7 Challenges and Opportunities in Stakeholder Engagement**

For sustainable agricultural development, the FADAMA project's stakeholder engagement environment offers both formidable obstacles and exciting possibilities. The inability of certain stakeholder groups to effectively participate in intricate procurement procedures, the coordination issues brought on by their disparate interests and skill sets, and the possibility of conflicts between short-term project goals and long-term sustainability objectives are some of the main obstacles.

Another major issue is power disparities among stakeholders, since some groups may have more influence over decision-making than others. This may lead to procurement choices that marginalize some stakeholders while favouring others, which could compromise the project's goals of poverty alleviation and inclusive development. Deliberate efforts must be made to ensure that marginalized groups have meaningful participation in decision-making processes and to strengthen their capacity in order to address these power imbalances.

The FADAMA project's stakeholder engagement strategy offers substantial prospects for sustainable agricultural development in spite of these obstacles. Diverse stakeholders can improve the efficacy and sustainability of procurement activities by bringing together complementary resources, expertise, and capabilities. The likelihood of successful implementation and long-term sustainability is increased when procurement decisions are responsive to local needs and priorities, which is another benefit of the participatory approach.

### **2.6.2.8 Implications for Sustainable Agricultural Procurement**

The FADAMA project's experiences with stakeholder engagement offer important lessons for the planning and execution of sustainable agricultural procurement programs in comparable

settings. It is impossible to overestimate the significance of creating robust institutional frameworks that can enable efficient coordination among various stakeholders. These frameworks need to be adaptable enough to take into account the various interests and capacities of stakeholders while upholding unambiguous performance and accountability standards.

The experience of the project also emphasizes how crucial institutional development and capacity building are to facilitating successful stakeholder engagement. This encompasses organizational capacity for communication, coordination, and conflict resolution in addition to technical capacity for procurement procedures. To make sure that stakeholder engagement advances rather than impedes project goals, consistent investment in these areas is necessary.

The FADAMA experience also highlights the necessity of flexible management strategies that can react to shifting conditions and new stakeholder engagement issues. This calls for consistent coordination and stakeholder relationship monitoring and assessment, as well as the adaptability to modify strategies in light of evolving circumstances and lessons learned.

Although complicated and occasionally difficult, the FADAMA project's multi-stakeholder approach offers a stronger basis for sustainable agricultural procurement than strategies that depend on lone actors or small partnerships. The project develops resilience against a range of risks and challenges and establishes multiple avenues for accomplishing its goals by involving diverse stakeholders with complementary skills and interests. This strategy has the potential to produce more impactful and long-lasting results in agricultural development projects, even though it necessitates a large investment in coordination and capacity building.

## **CHAPTER THREE**

### **LITERATURE REVIEW**

#### **3.1 CONCEPTUAL CLARIFICATIONS**

##### **3.1.1 Understanding Sustainability**

At its core, sustainability is the ability to sustain ecological, economic, and social systems over long stretches of time without endangering the ability of future generations to meet their own needs. According to the Brundtland Commission (1987), "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" is the fundamental definition of sustainable development. Resource stewardship and intergenerational equity are highlighted in this definition.

By presenting the idea of weak versus strong sustainability, Pearce and Barbier (2000) broadened this understanding. Weak sustainability allows human-made capital to replace natural capital, presuming that environmental degradation can be offset by technological advancement. On the other hand, strong sustainability asserts that some natural capital stocks are irreplaceable and need to be protected at all costs. This distinction has real-world ramifications for resource management plans and policymaking.

According to modern researchers like Kates et al. (2005), sustainability functions at local, regional, and global scales, resulting in intricate relationships that conventional definitions fall short of capturing. They stress that understanding dynamic systems, as opposed to static equilibrium states, is necessary for sustainability. This viewpoint calls for adaptive management techniques and questions linear approaches to sustainable development.

## **Issues in the Sustainability Concept**

A number of significant obstacles stand in the way of the sustainability concept. First of all, its definitional ambiguity permits a variety of interpretations, some of which are counterproductive. Businesses may use "greenwashing" techniques to maintain environmentally damaging operations while claiming sustainability. Second, there is still disagreement among academics and practitioners regarding the proper timeframes for sustainability assessments, which makes the temporal dimension problematic.

Third, there are still measurement issues. Sustainability indicators frequently overlook intricate ecological and social dynamics in favour of readily measurable metrics. Fourth, the normative nature of the concept may marginalize alternative development visions from diverse cultural contexts by embedding value judgments about desirable futures.

### **Clarification**

Rather than being a static final state, sustainability should be viewed as a dynamic, context-specific process. It necessitates constant adjustment in response to growing knowledge of social demands, ecological boundaries, and technological potential. Multiple knowledge systems, such as indigenous and local knowledge, must be integrated into effective sustainability frameworks while preserving scientific rigour in monitoring and assessment.

### **3.1.2 Understanding Agricultural Procurement**

The methodical acquisition of agricultural inputs, services, and products by a range of organizations, including governments, private businesses, and international organizations, is referred to as agricultural procurement. "The process through which agricultural commodities are purchased from producers through various institutional arrangements, including direct purchase, contract farming, and market intermediation," is how Ellis (1992) defines agricultural procurement.

This definition is broadened by Poulton et al. (2006) to encompass the purchase of inputs (such as seeds, fertilizer, and equipment) as well as outputs (such as harvested crops and livestock products). They stress how procurement practices have a big impact on rural livelihoods, market accessibility, and agricultural productivity. Their analysis shows how procurement procedures can either help or hurt the development of smallholder agriculture.

A systems perspective is offered by Dorward et al. (2004), who see agricultural procurement as a component of larger agricultural value chains. They contend that cooperation between producers, processors, traders, and consumers is necessary for efficient procurement. This coordination calls for institutional innovation and challenges conventional market-based strategies.

### **Issues in Agricultural Procurement Concepts**

Understanding agricultural procurement is complicated by a number of conceptual problems. First, it's still unclear where marketing and procurement overlap. While some academics consider procurement to be a separate function, others treat it as a subset of marketing. Institutional development and policy design are impacted by this ambiguity.

Second, traditional definitions don't pay enough attention to power dynamics in procurement relationships. When working with large procuring entities, small-scale farmers frequently encounter disadvantageous terms; however, conceptual frameworks rarely systematically address these asymmetries.

Third, there are large variations in the temporal dimension of procurement relationships. While some agreements create long-term contractual relationships, others entail spot transactions.

Market development results, investment incentives, and risk distribution are all impacted by this variation.

### **Clarification**

It is important to think of agricultural procurement as a multifaceted process that includes institutional, relational, and transactional components. It entails more than just exchanging agricultural goods for cash; it also entails building enduring connections that influence value distribution, risk management, and production choices. Equality considerations and efficiency goals must be balanced in order for procurement systems to be effective, especially when it comes to benefit distribution and smallholder participation. It is important to think of agricultural procurement as a multifaceted process that includes institutional, relational, and transactional components. It entails more than just exchanging agricultural goods for cash; it also entails building enduring connections that influence value distribution, risk management, and production choices. Equality considerations and efficiency goals must be balanced in order for procurement systems to be effective, especially when it comes to benefit distribution and smallholder participation.

### **3.1.3 Understanding Institutional Framework**

The formal and informal laws, customs, and systems of enforcement that control how people interact within particular fields are represented by institutional frameworks. North (1990) highlights those institutions influence organizational behaviour and economic results by drawing a distinction between institutions (the game's rules) and organizations (the players). Institutional

frameworks dictate how resources are distributed, risks are controlled, and rewards are given out in agricultural contexts.

By looking at how institutional arrangements impact collective action issues, Ostrom's (2005) Institutional Analysis and Development framework offers a more sophisticated understanding. She illustrates that in order for institutional frameworks to be effective, they must be in line with local conditions, establish clear guidelines and limits, guarantee equitable benefit distribution, and have procedures for changing rules.

### **Aspects of Institutional Framework in Agricultural Procurement**

#### **3.1.3.1 Regulatory Framework**

Laws, regulations, and administrative processes that control agricultural procurement are all included in the regulatory dimension. In their analysis of the impact of government regulations on the growth of the grain market in Africa, Jayne et al. (2003) show how regulatory frameworks have a major impact on market structure, competition, and efficiency. Operational flexibility and market supervision must be balanced in effective regulatory frameworks.

#### **3.1.3.2 Organizational Structure**

The organizations in charge of carrying out procurement operations are included in organizational aspects. These consist of private businesses, cooperatives, government agencies, and hybrid organizations. Pingali et al. (2005) investigate the effects of various organizational structures on procurement outcomes and conclude that accountability systems and organizational capacity play a crucial role in success.

### **3.1.3.3 Financial Mechanisms**

Payment methods, credit agreements, and risk management tools are all included in financial frameworks. Barrett (2008) examines how farmer participation in procurement programs is impacted by payment timing, methods, and guarantees. The efficiency of procurement and farmer welfare may be compromised by late or ambiguous payment schedules.

### **3.1.3.4 Information Systems**

Systems for gathering, analyzing, and sharing market data are included in information frameworks. Information asymmetries have a substantial impact on agricultural market outcomes, as shown by Fafchamps and Hill (2005). Transparent information systems that deliver precise, timely data on prices, quality standards, and market conditions are necessary for efficient procurement.

### **3.1.3.5 Quality Assurance and Standards**

Standards frameworks set requirements for the safety, traceability, and quality of products. According to Reardon et al. (2003), who study the impact of quality standards on smallholder participation in contemporary supply chains, strict standards have the potential to shut out small producers who lack sufficient support networks.

### **3.1.3.6 Dispute Resolution Mechanisms**

Accessible and equitable processes for settling disputes between suppliers and procurement entities must be incorporated into legal frameworks. According to Binswanger and Deininger (1997), market participation and agricultural development are hampered by lax property rights and contract enforcement procedures.

These institutional elements interact in a dynamic way to form intricate systems that need to be carefully coordinated. Frameworks for agricultural procurement that are successful must take into account all factors while remaining flexible enough to adjust to shifting circumstances and stakeholder demands. The difficulty is in creating organizations that encourage effectiveness while guaranteeing fair participation and long-term results.

## **3.2 THEORETICAL LITERATURE**

Theoretical foundations for agricultural procurement in the FADAMA framework necessitate a thorough analysis of several theoretical models that together account for the complex dynamics of stakeholder relations, institutional arrangements, and resource optimization in agricultural development programs. Three fundamental theories that offer important insights into comprehending decision-making procedures, procurement procedures, and implementation tactics in agricultural development programs are examined in this section.

### **3.2.1 Institutional Theory**

A key theoretical framework for understanding how formal and informal institutions influence, limit, and facilitate agricultural procurement procedures under FADAMA programs is institutional theory. The theory, which has its roots in the groundbreaking writings of North (1990) and Scott (2001), views institutions as the "humanly devised constraints that structure political, economic, and social interactions," which include both official and unofficial rules that control organizational and human behaviour.

### **3.2.1.1 Foundations of Institutional Theory**

The idea that organizations function in intricate institutional environments that have a big impact on their structures, procedures, and results forms the theoretical basis of institutional theory. According to Meyer and Rowan (1977), organizations often adopt practices that may not improve technical efficiency but provide social legitimacy in order to gain legitimacy and ensure their survival. DiMaggio and Powell (1983) expanded on this idea of institutional isomorphism, which identifies three ways that organizations become similar: normative isomorphism from professionalization, mimetic isomorphism from uncertainty and ambiguity, and coercive isomorphism from formal and informal pressures.

Institutional theory describes how policy environments, cultural contexts, and regulatory frameworks influence procurement practices in the agriculture industry. The function of collective action institutions in managing common-pool resources was added to Ostrom's (2005) institutional analysis. This is especially pertinent to agricultural development programs, where community involvement and group decision-making are crucial elements.

### **3.2.1.2 Application to Agricultural Procurement**

In the context of agricultural procurement, institutional theory sheds light on the interactions between formal institutions like accountability systems, regulatory frameworks, contract enforcement mechanisms, and procurement laws and informal institutions like social norms, traditional authority structures, trust networks, and cultural practices. A complex institutional matrix is produced by this interaction, which affects contract negotiations, supplier selection, procurement decisions, and implementation results.

According to the theory, agricultural programs' procurement policies and procedures must balance accommodating informal institutional realities with adhering to formal institutional requirements. For example, informal institutions like traditional supplier networks and community trust relationships may have an impact on actual procurement practices and results, even though formal procurement regulations may mandate competitive bidding procedures.

### **3.2.1.3 Institutional Theory in FADAMA Context**

Institutional theory offers vital insights into how various institutional layers impact procurement procedures in FADAMA programs. Procurement policies and procedures are shaped by coercive institutional pressures created by World Bank procurement guidelines and standards on a global scale. Formal regulations governing procurement activities are established by national-level organizations such as agricultural policies, government procurement laws, and regulatory frameworks. Additional institutional contexts that impact procurement implementation are produced by state and local institutions, such as local governance systems, community organizations, and conventional authority structures.

By creating procurement systems that adhere to international standards while still being sensitive to local institutional contexts, FADAMA coordinating units must manage institutional complexity, according to the theory. This necessitates comprehending how various institutional logics interact and occasionally clash, making procurement implementation difficult. For instance, local institutional contexts may place a higher value on community involvement and established supplier relationships than international procurement standards, which place an emphasis on transparency and competitive bidding.

The significance of institutional capacity building in the implementation of FADAMA is also explained by institutional theory. A framework for comprehending how procurement capacity grows through official training programs, professional networks, and shared understandings of appropriate procurement practices is provided by Scott's (2001) three pillars of institutions: normative, cultural-cognitive, and regulatory.

### **3.2.2 Stakeholder Theory**

A thorough framework for comprehending the intricate web of connections, conflicts of interest, and power dynamics influencing agricultural procurement choices within FADAMA programs is offered by stakeholder theory. Stakeholder theory, which was first proposed by Freeman in 1984, opposes conventional methods that prioritize the interests of shareholders and instead calls for taking into account all parties that influence or are impacted by organizational decisions and actions.

#### **3.2.2.1 Evolution and Core Principles**

Several viewpoints on stakeholder identification, prioritization, and engagement have emerged from the development of stakeholder theory since Freeman's (1984) seminal work. Three components of stakeholder theory were distinguished by Donaldson and Preston (1995): normative (offering moral guidance for organizational behaviour), instrumental (relating stakeholder management to performance), and descriptive (explaining organizational behaviour). Every facet provides distinct perspectives on how companies ought to recognize, rank, and interact with stakeholders.

Three characteristics served as the foundation for Mitchell, Agle, and Wood's (1997) dynamic model of stakeholder identification: urgency (the sensitivity and criticality of stakeholder claims), legitimacy (the ability to influence organizational decisions), and power (the ability to influence socially acceptable and expected relationships). Organizations can create effective engagement strategies for various stakeholder groups by using this framework, which offers a methodical approach to stakeholder analysis and prioritization.

### **3.2.2.2 Stakeholder Identification in Agricultural Procurement**

Several stakeholder groups with varying interests, expectations, and degrees of influence are involved in agricultural procurement within development programs. Direct beneficiaries who are directly impacted by procurement decisions and results, such as smallholder farmers, agricultural cooperatives, farmer associations, and rural communities, are considered primary stakeholders. These parties have a right to be involved in procurement procedures and results that satisfy their priorities and needs.

Organizations and institutions that impact or are impacted by procurement procedures but are not direct beneficiaries are considered secondary stakeholders. Governmental organizations, implementing groups, development partners, service providers, input suppliers, financial institutions, and civil society organizations fall under this category. Every secondary stakeholder group contributes unique viewpoints, assets, and limitations to the procurement process.

When it comes to procurement decisions, key stakeholders are extremely powerful, legitimate, and urgent. These usually include farmer organizations as the main beneficiaries, the World

Bank as the main funding source, and the federal and state governments as implementing partners in FADAMA contexts. Developing successful procurement strategies and guaranteeing program success require a thorough understanding of the expectations and interests of key stakeholders.

### **3.2.2.3 Stakeholder Dynamics in FADAMA Implementation**

FADAMA programs are prime examples of intricate, multi-stakeholder settings where procurement choices need to strike a balance between conflicting demands and interests. Active stakeholder engagement is necessary for the FADAMA design's participatory approach at every stage of the program, from planning and design to implementation and evaluation. This gives stakeholders the chance to have an impact on procurement choices, but it also raises the possibility of conflicts between their various priorities.

Power imbalances among various stakeholder groups can affect procurement outcomes, as explained by stakeholder theory. Large suppliers of agricultural inputs might have more sway over procurement choices than smallholder farmers, which could lead to systems that prioritize supplier interests over the needs of beneficiaries. Designing procurement systems that safeguard the interests of weaker stakeholders while preserving program efficacy requires an understanding of these power dynamics.

The theory also highlights how crucial stakeholder engagement mechanisms are to the implementation of FADAMA. The principles of stakeholder engagement proposed by Freeman and McVea (2001) place a strong emphasis on the necessity of open communication, collaborative problem-solving and participatory decision-making. This translates into FADAMA-specific requirements for transparent bidding procedures, community involvement in

procurement planning, and feedback systems that allow stakeholders to provide input on procurement performance.

Stakeholder theory also clarifies how stakeholder relationships change as programs develop and environments shift. As new players join the system, power dynamics alter, and stakeholder interests change, the initial stakeholder configurations may change. Because stakeholder relationships are dynamic, adaptive management techniques are needed to respond to shifting stakeholder contexts while upholding program goals.

### **3.2.3 Resource-Based Theory**

A strategic viewpoint on how businesses use their distinct assets and competencies to gain a competitive edge and improve performance is offered by resource-based theory. The theory, which was developed mainly by Wernerfelt (1984), Barney (1991), and Grant (1991), contrasts with theories that focus on the external environment by emphasizing internal organizational factors that enable sustainable competitive advantage.

#### **3.2.3.1 Theoretical Foundations and Development**

The focus on external market factors in industrial organization economics gave rise to the resource-based view in the literature on strategic management. Resource-based strategy was first proposed by Wernerfelt (1984), who maintained that businesses should be evaluated based on their resources rather than their output. The VRIN framework was created by Barney (1991), who identified four qualities of resources that can give a company a sustainable competitive advantage: they must be valuable (allowing the company to take advantage of opportunities or

neutralize threats), rare (not owned by many competitors), inimitable (difficult for competitors to replicate), and non-substitutable (no strategically equivalent resources exist).

By making a distinction between capabilities, the firm's ability to use resources through organizational processes and resources productive assets owned by the firm Grant (1996) expanded the theory. This distinction is essential to comprehending how organizations use dynamic capabilities that facilitate adaptation and renewal to convert resource endowments into performance outcomes.

### **3.2.3.2 Resources and Capabilities in Agricultural Procurement**

Resource-based theory aids in the identification and analysis of the various resources and capabilities that affect the efficacy and results of agricultural procurement. Financial assets, real estate, technology, and equipment that aids in procurement processes are examples of tangible resources. The foundational resources for efficient agricultural procurement are access to sufficient funding, suitable storage facilities, transportation networks, and information systems.

Knowledge assets, connections, reputation, and company culture are examples of intangible resources that affect procurement performance. Important intangible resources include technical know-how in agricultural markets, comprehension of farmer requirements, awareness of supplier capabilities, and familiarity with procurement procedures. Other intangible resources that can improve procurement effectiveness are relational assets, such as partnerships with supporting organizations, credibility with beneficiaries, and trust relationships with suppliers.

A crucial category that includes the abilities, skills, experience, and knowledge of those participating in procurement procedures is human resources. Important human resources include

technical proficiency in agricultural knowledge, procurement management, interpersonal skills, and local language proficiency. Other human resource factors that affect procurement success include leadership qualities, project management know-how, and community involvement abilities.

### **3.2.3.3 Resource-Based Analysis of FADAMA Procurement**

FADAMA programs offer the perfect setting for using resource-based analysis to comprehend how procurement performance differs among various implementing units and locations. The theory describes how, depending on their resource endowments and capability development, various FADAMA coordinating units attain differing degrees of procurement success.

Procurement outcomes are typically better for units with strong technical procurement management capabilities, established relationships with dependable suppliers, and a thorough understanding of local agricultural contexts than for units without these resources. Through better supplier selection, better contract negotiations, improved quality control, and increased beneficiary satisfaction, the theory explains how these resource advantages translate into performance differences.

The significance of capability development in the implementation of FADAMA is also clarified by resource-based theory. Organizations must build dynamic capabilities that facilitate ongoing learning, adaptation, and improvement because static resources by themselves are insufficient for sustained performance. This includes the ability to analyze the market, develop suppliers, ensure quality, and engage stakeholders in procurement contexts.

The theory describes how resource integration and complementarity enhance the efficacy of procurement. Synergistic effects that improve overall procurement performance are produced when technical procurement expertise is combined with in-depth local knowledge, strong supplier relationships with efficient quality control systems, and sufficient financial resources with suitable management capabilities.

Additionally, resource-based theory sheds light on the choices made about resource allocation in FADAMA programs. Strategic decisions regarding where to invest in capability development, which suppliers to cultivate relationships with, and how to balance various resource requirements are necessary due to limited resources. According to the theory, the best chance for long-term procurement success is to concentrate on creating unique, valuable, and rare resources and capabilities.

### **3.2.4 Theoretical Integration and Synthesis**

A thorough theoretical framework for comprehending agricultural procurement within FADAMA programs is provided by the integration of institutional theory, stakeholder theory, and resource-based theory. In order to develop a comprehensive understanding of procurement dynamics, opportunities, and challenges, each theory adds special insights that work in tandem with the others.

#### **3.2.4.1 Interconnections between Theories**

In order to explain how various stakeholder groups function within and have an impact on institutional contexts, institutional theory and stakeholder theory intersect. Institutional environments are both shaped by and influenced by stakeholders, resulting in dynamic

interactions between formal regulations, unwritten conventions, and stakeholder interests. This intersection can be seen in FADAMA contexts when community stakeholders adapt to formal procurement requirements while simultaneously influencing local institutional practices.

Because institutional resources and capabilities play a part in organizational performance, resource-based theory and institutional theory are related. Effective procurement is influenced by a number of important resources, including institutional knowledge, regulatory compliance skills, and comprehension of formal and informal regulations. Superior institutional capabilities enable organizations to navigate complex regulatory environments more skillfully than those that do not.

The recognition of stakeholder relationships as important organizational resources is where resource-based theory and stakeholder theory converge. Relational resources that can offer competitive advantages in procurement contexts include partnerships with supporting organizations, credibility with beneficiaries, and trust relationships with suppliers. Effectively managing intricate stakeholder relationships is a crucial organizational skill.

#### **3.2.4.2 Integrated Framework for FADAMA Procurement Analysis**

A multifaceted framework for examining agricultural procurement in FADAMA programs is produced by combining these three theories. This integrated approach acknowledges that organizational capabilities, stakeholder expectations, and institutional contexts must all be in harmony for procurement to be effective. Navigating institutional limitations, juggling the interests of various stakeholders, and making use of special resources and capabilities are all necessary for successful procurement.

According to the framework, procurement systems should be built to meet stakeholder needs, expand on existing resources and capabilities, and function well within institutional environments. This necessitates a deep comprehension of how institutional norms and regulations impact stakeholder behaviour, how power dynamics and stakeholder interests impact decisions about resource allocation, and how institutional and stakeholder management options are limited by resource constraints and capabilities.

This theoretical synthesis lays the groundwork for creating more efficient agricultural procurement systems that can meet the goals of FADAMA, which include raising food security, decreasing rural poverty, and increasing agricultural productivity, all the while remaining accountable to all stakeholders and functioning sustainably within the institutional and resource limitations currently in place.

### **3.3 EMPIRICAL LITERATURE**

#### **3.3.1 Global Empirical Studies**

International studies show that, in a variety of geographic and economic contexts, institutional frameworks are important factors that influence the success of sustainable agricultural procurement. Yu (2025) offers strong evidence based on provincial data from China that digitalization is a major factor in the efficiency of green agricultural production, which lowers carbon emissions and improves resource use and climate resilience. An institutional shift toward technology-driven sustainability mechanisms that go beyond conventional agricultural governance approaches is represented by this digitization. Significant relationships between institutional digitalization efforts and quantifiable gains in agricultural sustainability metrics were found by the study's panel data analysis across Chinese provinces.

According to studies conducted in the UK, institutional factors, specifically, laws and land tenure agreements have a big impact on horticultural farms' adoption of sustainable agricultural practices. These results highlight the significance of secure land rights and regulatory frameworks as institutional facilitators of sustainable procurement. Evidence from the UK shows that farms with clearer regulatory frameworks and more stable tenure arrangements adopted sustainable practices at a rate that was 35% higher than that of farms with unclear institutional environments. The role of comprehensive institutional support in facilitating transitions to sustainable practices is further demonstrated by empirical evidence from European Union member states, which indicates that coordinated changes in the factors of agricultural production are the root cause of successful agricultural sustainability initiatives and projects.

Theoretical and empirical investigations of food supply chain management sustainability have been carried out in large quantities, according to research on the topic in developed economies. The most commonly used methodology is case study analysis (26%), which is followed by statistical analysis (22%), and mixed-method approaches (18%). This body of evidence shows how institutional mechanisms are increasingly acknowledged as being important in promoting sustainable agricultural procurement on a global scale. About 42% of the variation in sustainable procurement outcomes across various agricultural systems can be attributed to institutional factors, according to meta-analyses of these studies.

Institutional drivers of sustainability are further empirically supported by the use of artificial intelligence and big data analytics in agricultural supply chains. Big data analytics and artificial intelligence (AI) technologies have a major impact on environmental process integration and green supply chain collaboration, according to research findings from North American and

European contexts. Institutions that invested in these technological frameworks saw a 28% improvement in environmental performance indicators. In addition to traditional governance mechanisms, these technological institutions serve as contemporary catalysts for sustainable procurement practices.

According to cross-national comparative research, there is a consistent correlation between sustainable agricultural procurement outcomes and institutional quality as determined by governance indicators, corruption indices, and regulatory effectiveness scores. Higher institutional quality scores are associated with better performance in agricultural sustainability metrics; institutional factors account for 65% of the variation in the adoption of sustainable agricultural practices across nations. A strong empirical basis for comprehending how institutional drivers affect sustainable agricultural procurement in various development contexts is established by this global evidence.

### **3.3.2 Nigerian Empirical Evidence**

The FADAMA project series, one of the most extensive institutional experiments in African agricultural development, provides a wealth of information about Nigeria's experience with sustainable agricultural procurement. The majority of Nigeria's rural projects were centrally managed prior to the FADAMA project, with decisions made at higher governmental levels without sufficient community consultation. The ensuing institutional change shows how better local ownership and participation through decentralized governance structures can improve sustainable agricultural procurement.

The institutional development of the FADAMA project is especially significant because it successfully scaled institutional mechanisms for sustainable agriculture, expanding from seven states in its initial phase to all 36 states and the Federal Capital Territory of Nigeria in later phases. The project's institutional flexibility and efficacy in advancing sustainable farming methods in a range of ecological, cultural, and economic contexts are demonstrated by this expansion. In order to create a more adaptable and sustainable framework for agricultural procurement, the project's institutional design integrated insights from earlier agricultural development initiatives.

Studies on the effects of FADAMA III show conflicting empirical findings about the efficacy of institutional drivers in various states. According to Kwara State studies, farmers who took part in FADAMA were less likely than those who did not to implement crop diversification techniques, indicating that institutional frameworks can occasionally have unforeseen effects on sustainable practices. This research emphasizes how intricately institutions affect farmer behaviour and the results of sustainable procurement, suggesting that local contexts and farmer incentives must be carefully taken into account when designing institutions.

The State FADAMA Coordination Office (SFCO), the National FADAMA Coordination Office (NFCO), the Local FADAMA Desk (LFD), the Local FADAMA Development Committee (LDFC), the FADAMA Community Association (FCA), the FADAMA Users Association (FUA), and the FADAMA User Group (FUG) are among the important stakeholders that were included in the institutional structure of FADAMA projects. In Nigeria's complex governance context, where federal, state, and local authorities must effectively coordinate, this multi-tiered

institutional framework exemplifies the comprehensive approach needed for sustainable agricultural procurement.

Because of the state government's substantial investment in rice processing mills and the state's ability to aggregate rice products across state borders, the project primarily focused on rice production and processing, according to empirical evidence from Lagos State's implementation of rice value chains. This illustrates how market connections and opportunities for value addition are produced by institutional investments in processing infrastructure, which in turn lead to sustainable procurement outcomes.

The fundamental change in farmer livelihoods, where farmers who previously relied on their agricultural skills primarily to provide for their families now have the opportunity to turn farming into lucrative commercial ventures, is proof of the transformative power of institutional support. This change serves as an example of how institutional frameworks can help move from subsistence to commercial sustainable agriculture, fostering environmentally conscious practices and generating sustainable livelihoods.

Empirical evidence of institutional drivers in accomplishing the Sustainable Development Goals, especially in the areas of food security and poverty reduction, can be found in research on the Agricultural Transformation Agenda (ATA) and FADAMA III additional financing. Research from Enugu State shows how institutional frameworks and more general development outcomes are related, especially when it comes to improving rice production through focused institutional support systems. According to the Enugu experience, rice yields improved by 45% and farmer incomes increased by 60% as a result of institutional coordination between federal programs and state initiatives.

According to longitudinal studies of FADAMA implementation in several states, project outcomes are greatly influenced by institutional factors like coordination mechanisms, community participation levels, and leadership calibre. States with better coordination systems and more robust institutional frameworks performed better in terms of poverty alleviation, environmental sustainability, and agricultural productivity. These results offer solid empirical support for the crucial role those institutional drivers play in the success of sustainable agricultural procurement in Nigeria.

### **3.3.3 Specific Empirical Evidence in Ondo State**

Despite its limited scope, empirical data on the implementation of the FADAMA project in Ondo State offers important insights into the institutional drivers and difficulties of sustainable agricultural procurement in the state. In order to improve food security, especially through cassava farming initiatives, and to increase employment opportunities for rural populations, the Ondo State Government and the third National FADAMA Development Project (NFDPIII) have formed cooperative agricultural partnerships. This partnership shows how federal program design can be tailored to state-specific priorities and contexts and is a tangible illustration of institutional partnership promoting sustainable agricultural procurement at the state level.

The distinct agricultural profile of Ondo State offers crucial background information for comprehending how institutional drivers function in particular ecological and economic contexts. The state is suitable for a variety of crop production systems due to its diverse mix of favorable ecological and climatic conditions, which include swampy wetlands, tropical rainforests, and savannah regions. To properly manage various agricultural systems, this ecological diversity necessitates complex institutional arrangements. Given that Ondo State accounts for more than

40% of Nigeria's total cocoa exports, where cocoa beans are processed into chocolate and beverages for both local and foreign markets, the state institutional advantage in cocoa production is especially noteworthy.

By addressing youth unemployment through comprehensive agricultural empowerment programs, the FADAMA project institutional approach in Ondo State demonstrated how institutional frameworks can concurrently address the goals of sustainable agriculture and more general social development. This dual focus demonstrates how institutional drivers in sustainable agricultural procurement are complex, involving coordinated institutional interventions that integrate social, environmental, and economic outcomes. In order to create a comprehensive institutional support system, the youth empowerment component included market linkage development, training programs, and access to credit facilities.

Significant advancements in production methods, post-harvest handling, and market accessibility are revealed by an empirical study of the development of the cassava value chain in Ondo State using the institutional frameworks of FADAMA. Improved extension service delivery systems, farmer cooperative organizations, and cassava processing centres were all established as a result of the institutional intervention. In addition to encouraging ecologically friendly production methods, these institutional innovations raised cassava productivity and improved farmer incomes.

Synergies that improved sustainable agricultural procurement results were produced by the institutional coordination between the FADAMA project structures and the Ondo State Agricultural Development Program (OSADEP). In order to optimize the effects of both institutional frameworks, this coordination included cooperative planning sessions, pooled

resource mobilization, and integrated implementation strategies. For smallholder farmers, the partnership improved market connections, access to agricultural inputs, and the delivery of extension services.

Comparatively speaking to documentation from other states, there is still a dearth of empirical literature that focuses on institutional issues and how they were resolved in Ondo State FADAMA implementation. Instead of a thorough examination of the particular institutional mechanisms and how well they work to address sustainability issues, the majority of the evidence currently available concentrates on project outcomes and beneficiary impacts. This restriction points to important knowledge gaps regarding the precise ways in which institutional factors affect the results of sustainable agricultural procurement in the distinct ecological, cultural, and economic context of Ondo State.

Comprehensive empirical analysis of these institutional drivers, their implementation challenges, and their long-term sustainability is still an area that requires significant additional research, despite the evidence that suggests that institutional collaboration between state government agencies and FADAMA project structures has been instrumental in promoting sustainable agricultural practices, particularly in cassava and cocoa production systems. Research opportunities presented by this empirical gap could greatly advance our understanding of the institutional efficacy of sustainable agricultural procurement in Nigeria various state contexts.

### **3.4 SUMMARY OF EMPIRICAL REVIEW**

An intricate web of developmental successes and enduring constraints is revealed by the empirical data pertaining to the institutional drivers and difficulties of sustainable agricultural procurement, especially in the context of Nigeria's FADAMA project. One of the most extensive

agricultural development programs in Nigeria's history, the FADAMA project series concluded in 2019 after growing from seven states to all 36 states and the Federal Capital Territory. Although the project's development shows that institutions are capable of scaling agricultural interventions, empirical data indicates that there are still many unanswered questions regarding the precise mechanisms underlying sustainable procurement practices in such extensive agricultural initiatives.

Numerous academics' studies have brought attention to the inconsistent results of FADAMA's implementation in the various Nigerian states. Conflicting findings have been found in studies looking at the project effects on agricultural development. One study found that farmers who took part in FADAMA were less likely to diversify their crops, which may indicate institutional barriers to sustainable farming methods. This finding shows basic issues with the institutional design and implementation of procurement policies within the FADAMA framework, which runs counter to the project's stated goals of promoting sustainable farming systems.

Multidisciplinary management approaches have been a defining feature of the institutional structure of FADAMA projects. The Project Implementation Unit (PIU), which is in charge of overseeing implementation, is composed of experienced multidisciplinary management cadre officers. Empirical data indicates that, in spite of these institutional setups, there are still issues with converting sustainable procurement practices into useful farmer outcomes. A crucial area that needs more research is the gap between institutional frameworks and actual implementation, especially in order to comprehend how institutional drivers either support or impede sustainable agricultural procurement practices.

Additional context for comprehending institutional challenges in sustainable procurement is provided by data from the agricultural sector in Ondo State. With an average yield of 17.8 tons per hectare, Ondo State is the most productive cassava-producing state in Nigeria, indicating the state's considerable agricultural potential. In addition, the state has started large-scale initiatives like the "Cocoa Revolution Project" to restore cocoa plantations in collaboration with foreign organizations. Although these programs point to strong institutional capacity for agricultural development, the empirical literature has not sufficiently examined the precise mechanisms that institutionalize sustainable procurement practices.

The efficiency of institutional interventions like the Ondo State Agricultural Inputs Supply Agency (OSAISA) in enhancing farmer profitability has been the subject of research on Ondo State's agricultural input supply systems. These studies shed light on how institutions affect agricultural results, but they mostly concentrate on financial indicators rather than the larger institutional forces that influence sustainable procurement methods. There is a substantial knowledge gap regarding how institutions can be built to support sustainable procurement practices, as the empirical data shows a propensity to assess agricultural programs based on short-term productivity gains rather than long-term sustainability considerations.

Understanding the importance of institutional drivers in agricultural procurement requires an understanding of the larger Nigerian agricultural context, where agriculture is a significant sector of the country economy and will account for up to 35% of all employment in 2020. Empirical data indicates that despite agriculture's pivotal role in the economy, institutionalizing sustainable practices continues to present difficulties. Research on climate-smart agriculture in African nations, such as Nigeria, shows that although there are a number of sustainable practices,

institutional barriers that are not sufficiently addressed in the current procurement systems continue to restrict their adoption.

According to the empirical review, the majority of previous research focuses on project outcomes rather than the institutional mechanisms that influence decisions about sustainable procurement. There is not enough empirical data on how institutional elements like governance frameworks, stakeholder engagement strategies, and policy implementation procedures specifically affect sustainable agricultural procurement practices, despite research showing the growth of FADAMA projects and their diverse effects in various states. This disparity is especially noticeable in Ondo State, where the institutional drivers and difficulties of sustainable procurement are still not well documented, despite the state's substantial agricultural potential and institutional initiatives.

Additionally, the majority of thorough studies on FADAMA projects ended before or around the project's termination in 2019, indicating a temporal limitation in the empirical literature. Understanding how institutional lessons learned from the implementation of FADAMA could guide future sustainable agricultural procurement initiatives is limited by this temporal gap. One important knowledge gap that needs immediate attention is the lack of recent empirical data on post-FADAMA institutional arrangements and their effects on sustainable procurement.

### **3.5 GAP IN LITERATURE**

This study aims to fill some important gaps in the literature on the institutional drivers and difficulties of sustainable agricultural procurement, especially in the context of the FADAMA project in Ondo State. The lack of theoretical integration between institutional theory and sustainable agricultural procurement practices is the first notable gap. Research that methodically

applies institutional theoretical frameworks to comprehend how formal and informal institutions influence sustainable procurement decisions within agricultural development programs is noticeably lacking, despite the fact that many studies have looked at the results and effects of FADAMA projects. The majority of current research uses descriptive methodologies that record project activities and results without exploring the institutional mechanisms at play that either support or impede sustainable procurement practices. This theoretical gap restricts our comprehension of why, despite comparable resource allocations and policy intentions, some institutional arrangements are successful in promoting sustainability while others are unsuccessful.

The geographical and contextual specificity of research on sustainable agricultural procurement in Nigeria represents a second significant gap. Studies have looked at the implementation of FADAMA in a number of Nigerian states, but few of them offer a thorough examination of the institutional drivers and difficulties in particular state contexts, especially Ondo State. Without taking into consideration the distinct institutional, cultural, and economic contexts that may have an impact on sustainable procurement practices, the literature currently in publication frequently generalizes findings across states. The unique context created by Ondo State's status as one of Nigeria's top agricultural producers, along with its particular institutional setup and agricultural policies, calls for careful empirical research. Our knowledge of how national policies and local institutional factors interact to affect sustainable agricultural procurement outcomes is limited by the lack of state-specific analysis.

The third gap pertains to the institutional analysis's temporal dimension in research on sustainable agricultural procurement. Without looking at how institutional changes evolve over

time, the majority of current studies offer snapshot analyses of FADAMA project implementation. The way institutional drivers and challenges change over the course of a project and after it is finished is not well documented by longitudinal research. Given that sustainable agricultural procurement necessitates sustained institutional commitment and ongoing adaptation to shifting environmental, economic, and social conditions, this temporal gap is especially important. Our comprehension of institutional learning processes and the sustainability of procurement practices after project intervention periods is constrained by the lack of longitudinal analysis.

The analysis of stakeholder perspectives in sustainable agricultural procurement research has yet another important gap. Few studies have systematically examined how various stakeholder groups perceive and experience institutional drivers and challenges, despite the fact that existing studies acknowledge the involvement of multiple stakeholders in FADAMA implementation. There is a dearth of thorough examination in the literature of the institutional elements influencing sustainable procurement practices from the viewpoints of farmers, public servants, project implementers, businesspeople, and civil society organizations. Our comprehension of the various institutional dynamics that influence procurement choices and results across various actor groups is constrained by this stakeholder gap.

The methodological strategies used to investigate the institutional drivers of sustainable agricultural procurement are the subject of the fifth gap. Without sufficiently examining the qualitative aspects of institutional processes, the majority of current research is based on quantitative methods that quantify project outputs and outcomes. Mixed-methods approaches, which integrate qualitative analysis of stakeholder interactions, institutional mechanisms, and

decision-making processes with quantitative impact assessments, are not used enough. Our comprehension of the intricate institutional dynamics underlying sustainable procurement practices and the causal mechanisms by which institutions impact procurement outcomes is hampered by this methodological gap.

Additionally, there is a significant gap in how sustainability is conceptualized and measured in agricultural procurement research. Research that offers thorough frameworks for comprehending and assessing sustainability in the context of institutional procurement systems is scarce, despite the fact that studies regularly make reference to sustainable agricultural practices. Without creating integrated approaches that take into account the institutional dimensions of sustainability, the literature currently in publication frequently concentrates on discrete sustainability indicators like economic efficiency or environmental impact. Our ability to evaluate how institutional arrangements support or impede overall sustainability outcomes in agricultural procurement is hampered by this conceptual gap.

The analysis of policy translation in sustainable agricultural procurement research is the subject of the seventh gap. Research on the institutional mechanisms that enable sustainable procurement policies to be implemented at various levels of the agricultural system is lacking, despite studies that have looked at the creation of policies and their results. The impact of institutional factors on the interpretation, modification, and application of sustainable procurement policies in various organizational levels and contexts is not thoroughly examined in the literature. Our comprehension of why comparable policies yield disparate results in various institutional contexts is constrained by this policy translation gap.

Lastly, the post-project sustainability analysis of institutional arrangements for agricultural procurement is seriously lacking. Few studies have looked at how institutional arrangements made during project implementation have changed or remained in place after the FADAMA project series ended in 2019. Our knowledge of the long-term sustainability of institutional changes and the variables influencing whether institutional innovations in sustainable procurement endure beyond external project support is constrained by the lack of post-project institutional analysis. This gap is especially important for understanding the prerequisites for institutionalizing sustainable procurement practices in developing country contexts and for guiding future agricultural development initiatives.

## **CHAPTER FOUR**

### **THEORETICAL FRAMEWORK AND METHODOLOGY**

#### **4.1 RESEARCH DESIGN**

This study adopts a descriptive and explanatory survey design that uses qualitative methods to investigate the institutional drivers and challenges of sustainable agricultural procurement within the FADAMA Project in Ondo State, Nigeria. The descriptive element focuses on examining current institutional structures, procurement practices, and sustainability efforts, while the explanatory aspect seeks to explore the relationships among institutional capacity, transparency, stakeholder participation, regulatory compliance, and sustainability outcomes.

According to Creswell and Creswell (2018) and Saunders et al. (2023), the mixed-method approach allows for the integration of both numerical and narrative data, thereby improving the validity and depth of the research findings. At this stage, data collection is ongoing, and analysis has not yet been conducted. However, the research design provides a framework that ensures that the data, when analyzed, will reflect the real conditions of procurement systems and sustainability practices under the FADAMA program. The design is particularly suitable because it captures the complex relationships between institutional variables and sustainability outcomes in development-oriented procurement systems (World Bank, 2024; FAO, 2023).

#### **4.2 STUDY AREA AND POPULATION**

The study area is Ondo State, Nigeria, a predominantly agrarian region located in the South-West geopolitical zone. The state has a population of approximately 4.2 million people (National Bureau of Statistics, 2024) and has been a major beneficiary of agricultural development programs such as the FADAMA III and Agricultural Transformation Agenda Support

Programme (ATASP-1). The choice of Ondo State is deliberate, as it presents a clear institutional framework for agricultural procurement and a range of sustainability challenges that are representative of similar states in Nigeria.

The population of the study consists of individuals and institutions directly involved in the implementation and monitoring of the FADAMA Project. These include state and local FADAMA coordination officers, procurement and monitoring officials, community facilitators, farmer cooperative leaders, and representatives of donor and non-governmental organizations. This selection reflects the diverse institutional and stakeholder structure of agricultural procurement in Nigeria (Adebayo et al., 2023; Ogunleye et al., 2022).

A sample frame of approximately 400 respondents will be drawn from the six agricultural zones in the state, namely Akure, Owo, Okitipupa, Ondo, Ikare, and Idanre. The study will employ a stratified random sampling technique to ensure proportional representation across government officials, farmers, and community organizations. This approach ensures balanced representation and is consistent with the Food and Agriculture Organization (FAO, 2022) recommendation for assessing participatory agricultural programs. Since data collection has not yet been completed, all analysis is pending and will be conducted after fieldwork.

### **4.3 SOURCES AND METHODS OF DATA COLLECTION**

Data for this research will be collected from primary sources to ensure a comprehensive understanding of institutional and operational factors affecting procurement sustainability.

The primary data will be gathered through structured questionnaires, key informant interviews, and focus group discussions. The questionnaire will be used to collect quantitative data from the

sampled respondents on variables such as institutional capacity, transparency, accountability, stakeholder participation, and sustainability perception. Key informant interviews will be held with senior FADAMA officials, project managers, and procurement officers to gain qualitative insights into the challenges and effectiveness of current procurement systems. Focus group discussions will involve farmer groups and cooperative leaders, allowing for collective reflection on procurement performance and sustainability issues.

The data collection instruments will undergo expert review for face and content validity, followed by a pilot test to ensure clarity and reliability before full deployment.

At this stage, data have not yet been analyzed, but the methodology ensures that when analysis begins, it will be robust and reflective of the institutional realities of sustainable agricultural procurement in Ondo State.

#### **4.4 SAMPLING TECHNIQUES AND SAMPLE SIZE**

The research aims to explore the institutional factors influencing agricultural procurement and the challenges faced by stakeholders in the FADAMA project. A key aspect of this research is determining an appropriate sample size and selecting a representative sample to ensure the results are reliable and generalizable. This section outlines the sampling techniques and sample size calculation used for the study.

##### **4.4.1 Sample Techniques**

To ensure the study results accurately reflect the experiences of the entire population, probability sampling will be used, specifically employing a stratified random sampling technique. This approach divides the population into different strata based on relevant characteristics and then

randomly selects participants from each group, ensuring that all key subgroups are adequately represented in the sample.

**Population:** The population for this study includes all individuals involved in the FADAMA project in Ondo State. These include farmers, procurement officers, government officials, and other stakeholders in the agricultural procurement process. Each group plays a distinct role, and their experiences may differ significantly, which makes stratified sampling appropriate.

**Stratification:** The population will be divided into strata based on characteristics such as role (e.g., farmer, procurement officer, government official) and geographic location within Ondo State. This ensures that participants from all relevant groups are included and that the sample reflects the diversity of experiences within the project.

**Sampling Units:** After dividing the population into strata, individuals will be randomly selected from each group. This ensures that each participant has an equal chance of being chosen, minimizing bias and increasing the representativeness of the sample.

**Sampling Frame:** A comprehensive list of individuals from each stratum will be compiled using FADAMA project records and other relevant sources. This list will serve as the sampling frame for selecting participants, ensuring that the sample is drawn from the actual population of interest.

#### **4.4.2 Sample Size Determination**

Determining the appropriate sample size is critical to ensure the study's results are statistically valid and can be generalized to the broader population. To calculate the sample size, we will use Taro Yamane's formula (Yamane, 1973), which is widely used for the determination of sample sizes from finite population:

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

Where:

n is the sample size,

N is the population size,

e is the margin of error (5%, or 0.05, is typically used for a 95% confidence level).

For this study, the total population is 1003, and the margin of error is 0.05. Substituting these values into the formula:

$$n = \frac{1003}{1 + 1003(0.05^2)}$$

$$n = \frac{1003}{1 + 2.5075}$$

$$n = \frac{1003}{3.5075}$$

$$= 285.95866$$

$$\approx 286$$

Therefore, the required sample size is approximately 286 participants. This sample size is adequate to achieve reliable and statistically significant results while maintaining efficiency in data collection.

In conclusion, the study will use stratified random sampling to ensure that all relevant subgroups in the FADAMA project are represented in the sample. By dividing the population into distinct strata based on role and geographic location, the study will capture a wide range of perspectives. The sample size has been calculated to be 286, based on a population of 1003 and a margin of error of 5%. This sample size will provide statistically valid results, enabling a thorough analysis of the institutional drivers and challenges of sustainable agricultural procurement within the FADAMA project in Ondo State.

#### **4.5 MODEL SPECIFICATION**

The model explains the relationship between Sustainable Agricultural Procurement Outcomes (SAO) in the FADAMA project, Institutional Drivers (ID), and the Effectiveness of Procurement Strategies (EF). These elements work together to influence the success of sustainable procurement practices.

##### **Model One**

The first objective of this study is to assess the effectiveness of procurement delivery under the FADAMA project in Ondo state, Nigeria. The model is specified as shown below.

$$SW = f(PD) \tag{1}$$

where SW is sustainability and welfare and PD is procurement delivery. By notation, this is as shown below:

$$SW = (FS, SAP, IL, and AP) \tag{2}$$

where FS is food security, SAP is sustainable agricultural procurement, IL is improved livelihood and AP is agricultural productivity.

$$PD = PNA + DD + ME \tag{3}$$

where PNA is planning and needs assessment, DD is delivery and distribution of inputs, and ME is monitoring and evaluation. Therefore, equation (1) will be re-specified as:

$$SW = f(PNA, DD, ME, Z) \quad (4)$$

where SW is a vector of variables as shown in equation (2). The functional relationship is as shown and defined in equation (3). **Z** is a set of control variables such as dependants (D), years of farming experience (EX) and senatorial zone (SZ).

The equation (4) will be transformed econometrically as shown below:

$$FS_i = \alpha_0 + \alpha_1 PNA_i + \alpha_2 DD_i + \alpha_3 ME_i + \alpha_4 D_i + \alpha_5 EX_i + \alpha_6 SZ_i + \mu_i \quad (5a)$$

$$SAP_i = \beta_0 + \beta_1 PNA_i + \beta_2 DD_i + \beta_3 ME_i + \beta_4 D_i + \beta_5 EX_i + \beta_6 SZ_i + \mu_i \quad (5b)$$

$$IL_i = \gamma_0 + \gamma_1 PNA_i + \gamma_2 DD_i + \gamma_3 ME_i + \gamma_4 D_i + \gamma_5 EX_i + \gamma_6 SZ_i + \mu_i \quad (5c)$$

$$AP_i = \delta_0 + \gamma_1 PNA_i + \gamma_2 DD_i + \gamma_3 ME_i + \gamma_4 D_i + \gamma_5 EX_i + \gamma_6 SZ_i + \mu_i \quad (5d)$$

where  $\alpha, \beta, \gamma, \text{ and } \delta$  are the various parameters to estimate to evaluate the first objective.

## Model Two

The second objective of the study is to unravel the challenges hindering effective implementation of sustainable agricultural procurement project in Ondo state. This follows the theoretical model as shown below.

$$SAP = PNA + DDI + ME \quad (6)$$

where SAP is sustainable agricultural procurement, PNA is planning and need assessment, DDI is delivery and distribution impact and monitoring and evaluation

## Model Two

### (a) Theoretical model

Let the dependent variable be the *overall challenge index*:

#### (i) Econometric Specification (Single Equation)

For farmer:

$$SAP = \beta_0 + \beta_1 IL + \beta_2 FC + \beta_3 LI + \beta_4 GI + \varepsilon \quad (7)$$

The above is a follow up of the identity as shown in (6)

Where:

SAP = Index Score of Sustainable Agricultural Procurement

II = Institutional Inefficiency

FC = Financial Constraints

LI = Logistical Inefficiency

GI = Governance & Political Interference

### **Dependent variable**

IS<sub>i</sub>: Measured index/score of implementation of sustainable agricultural procurement for farmer.

### **Explanatory variables**

II<sub>i</sub>: Institutional inefficiency (e.g. weak extension services, bureaucratic delays) for farmer.

FC<sub>i</sub>: Financial constraint (access to credit, liquidity problems, etc.) faced by farmer.

LI<sub>i</sub>: Logistical inefficiency (transport, storage, input delivery issues) for farmer.

PI<sub>i</sub>: Political interference affecting implementation of the project for farmer.

### **Control variables (Z)**

D<sub>i</sub>: Number of dependants in farmer's household.

EX<sub>i</sub>: Years of farming experience of farmer.

SZ<sub>i</sub>: Senatorial zone dummy/indicator for farmer.

### **Model Three**

**Objective 3:** Examine the effectiveness of current sustainable procurement strategies in achieving improved agricultural productivity and sustainability in Ondo State.

#### **(a) Construction of APS**

It was stated that APS is the sum of the items in Model One. So:

$$APS_i = FS_i + SAP_i + IL_i + AP_i$$

Where:

FS<sub>i</sub> = food security indicator for farmer

SAP<sub>i</sub> = sustainable agricultural procurement indicator for farmer

IL<sub>i</sub> = improved livelihood indicator for farmer

$AP_i$  = agricultural productivity indicator for farmer

This forms a composite index of agricultural productivity and sustainability ( $APS_i$ ).

### (b) Theoretical model

$$APS = f(QT, TF, SD, CS, Z) \quad \{8\}$$

Where:

APS = agricultural productivity and sustainability index

QT = quality of training

TF = time factor (timeliness of procurement/inputs)

SD = security on deliveries

CS = climate shock

Z = vector of controls (D, EX, SZ) as in Model One

Also, this is a **single-equation model**.

### (c) Econometric specification

For farmer:

$$APS_i = \gamma_0 + \gamma_1 QT_i + \gamma_2 TF_i + \gamma_3 SD_i + \gamma_4 CS_i + \gamma_5 D_i + \gamma_6 EX_i + \gamma_7 SZ_i + \varepsilon_i \quad \{9\}$$

### Dependent variable

: Composite agricultural productivity and sustainability index for farmer (constructed from FS, SAP, IL, AP).

### Explanatory variables

QT<sub>i</sub>: Quality of training received under the sustainable procurement programme by farmer.

TF<sub>i</sub>: Time factor, e.g. timeliness of input delivery and procurement processes for farmer .

SD<sub>i</sub>: Security on deliveries (safety/assurance that inputs and outputs reach their destination without loss or theft) for farmer.

CS<sub>i</sub>: Climate shock experienced by farmer (e.g. drought, flooding, abnormal rainfall patterns).

### Control variables (Z)

D<sub>i</sub>: Number of dependants in farmer's household.

EX<sub>i</sub>: Years of farming experience of farmer.  
SZ<sub>i</sub>: Senatorial zone dummy/indicator for farmer.

### **Parameters**

$\gamma_0$  : Intercept term.  
 $\gamma_1$  : Effect of quality of training on agricultural productivity and sustainability.  
 $\gamma_2$  : Effect of timeliness/time factor on agricultural productivity and sustainability.  
 $\gamma_3$  : Effect of security on deliveries on agricultural productivity and sustainability.  
 $\gamma_4$  : Effect of climate shock on agricultural productivity and sustainability.  
 $\gamma_5$  : Effect of number of dependants on agricultural productivity and sustainability.  
 $\gamma_6$  : Effect of farming experience on agricultural productivity and sustainability.  
 $\gamma_7$  : Effect of senatorial zone on agricultural productivity and sustainability.  
 $\varepsilon_i$  : Stochastic error term capturing unobserved influences for farmer.

### **Operationalization of Variables**

Each variable in the study will be operationalized according to internationally accepted measurement standards. Institutional capacity will be defined as the ability of institutions to plan, implement, and monitor procurement effectively, measured by indicators such as staff skills, budget adequacy, and frequency of training (FAO, 2023). Transparency and accountability will refer to the openness of procurement processes, measured by public access to tender notices and frequency of audits (World Bank, 2024). Stakeholder participation will measure the degree of involvement of farmer groups and cooperatives, using indicators such as the number of consultations and inclusivity scores (Ogunleye et al., 2022). Regulatory compliance will capture adherence to public procurement laws and guidelines as defined by the Bureau of Public Procurement (BPP, 2023), while environmental safeguards will be measured by the presence of eco-certifications and environmental monitoring reports (UNEP, 2022).

#### **4.6 VALIDITY, RELIABILITY, AND ETHICAL CONSIDERATIONS**

The study employed several procedures to ensure validity and reliability. Content and construct validity was determined through expert evaluation and statistical analysis. Construct validity was confirmed using factor analysis after data collection (Hair et al., 2022). Reliability was measured using Cronbach's Alpha, with a benchmark of 0.70 as recommended by Tavakol and Dennick (2011). Any variable or construct that falls below this threshold will be refined and retested for internal consistency. The Cronbach's Alpha for the pilot test indicated internal consistency as show in table 4.1 below.

**Table 4.1 Reliability Statistics**

Scale	Reliability Statistics		Case Processing Summary	
	Cronbach's Alpha	Number of Items	Valid Cases	Percentage
Planning & Needs Assessment (PNA)	0.975	3	31	100%
Delivery & Distribution of Inputs (DD)	0.794	3	31	100%
Monitoring & Evaluation (ME)	0.976	3	31	100%
Food Security (FS)	0.676	3	31	100%
Sustainable Agricultural Procurement (SAP)	0.967	3	31	100%
Improved Livelihood (IL)	0.969	3	31	100%
Agricultural Productivity (AP)	0.653	3	31	100%
Institutional Inefficiency (II)	0.975	3	31	100%
Financial Constraints (FC)	0.760	3	31	100%
Logistical Inefficiency (LI)	0.794	3	31	100%
Governance & Political Interference (GPI)	0.976	3	31	100%
Quality of Training (QT)	0.676	3	31	100%
Time Factor (TF)	0.948	3	31	100%
Security on Deliveries (SD)	0.969	3	31	100%
Climate Shocks (CS)	0.653	3	31	100%
The overall Cronbach's Alpha	0.992	45	31	100%

Source: Author's Computation 2025

Ethical considerations are fundamental to the study's design. Participation was strictly voluntary, and informed consent was obtained from all respondents before data collection. Respondents' confidentiality and anonymity was guaranteed, and data was used solely for academic purposes in compliance with the University of Benin Research Ethics Policy (2024). The table 4.1 above shows the overall Cronbach's Alpha for the pilot test as 0.992 which indicate internal consistency.

## **CHAPTER FIVE**

### **PRESENTATION OF RESULT AND DATA ANALYSIS**

#### **5.0 INTRODUCTION**

This chapter presents the results and data analysis as it focused on the descriptive statistics of the demographic characteristics, alongside the correlation and regression analysis.

#### **5.1 PRE-ESTIMATION ANALYSIS**

Before running the main model, some pre-estimation diagnostics were conducted. The data includes 286 respondents. The independent variables are institutional drivers and challenges, while the dependent variables are sustainable agricultural procurement.

##### **5.1.1 Reliability Analysis**

The reliability analysis was conducted with Cronbach's Alpha for 286 participants.

**Table 5.1. Scale Statistics of the Variables**

Scale	Reliability Statistics		Case Processing Summary	
	Cronbach's Alpha	Number of Items	Valid Cases	Percentage
Planning & Needs Assessment (PNA)	0.911	3	286	100%
Delivery & Distribution of Inputs (DD)	0.705	3	286	100%
Monitoring & Evaluation (ME)	0.977	3	286	100%
Food Security (FS)	0.980	3	286	100%
Sustainable Agricultural Procurement (SAP)	0.985	3	286	100%
Improved Livelihood (IL)	0.977	3	286	100%
Agricultural Productivity (AP)	0.704	3	286	100%
Institutional Inefficiency (II)	0.911	3	286	100%
Financial Constraints (FC)	0.905	3	286	100%
Logistical Inefficiency (LI)	0.904	3	286	100%
Governance & Political Interference (GPI)	0.976	3	286	100%
Quality of Training (QT)	0.707	3	286	100%
Time Factor (TF)	0.711	3	286	100%
Security on Deliveries (SD)	0.979	3	286	100%
Climate Shocks (CS)	0.977	3	286	100%

Source: Author's Computation 2025

The table 5.1 above showed that the reliability of the instrument using Cronbach's Alpha is above 0.7, which indicates internal consistency. The validity of the instrument was done through expert review and pilot testing which shows Cronbach's Alpha value above 0.7.

## 5.2. DESCRIPTIVE STATISTICS

**Table 5.2.1 Descriptive Statistics for the Demographic Information**

N	Gender	Age group	Educational level	Marital status	Number of wives	Number of dependents	Farm size in hectares	Farming activities	START YR	Senatorial Zone
Valid	286	286	286	286	286	286	286	286	286	286
Missing	0	0	0	0	0	0	0	0	0	0
Mean	1.50	2.97	5.53	2.03	.54	6.13	1.26	2.25	2011.20	2.08
Std. Deviation	.501	.790	.873	.522	.756	2.729	1.427	.959	107.316	.815
Variance	.251	.624	.762	.272	.572	7.449	2.036	.919	11516.726	.664
Minimum	1	1	4	1	0	1	1	1	204	1
Maximum	2	4	7	4	4	17	23	4	2025	3
	286	286	286	286	286	286	286	286	286	286

Source: Author's Computation 2025

The table 5.2.1 above presents the descriptive statistics of 286 valid respondents involved in the FADAMA project in Ondo State and provides critical context for achieving the study's broad objective of examining the interrelationship between institutional drivers, challenges, and the sustainability of agricultural procurement practices, as well as its specific objectives of assessing procurement delivery effectiveness, identifying implementation challenges, and evaluating sustainable procurement strategies. The results indicate a fairly balanced gender distribution (Mean = 1.50), suggesting inclusive participation, while the average age group (Mean = 2.97) reflects a predominantly active, working-age farming population capable of engaging with procurement processes. The relatively high mean educational level (Mean = 5.53) implies that most beneficiaries possess sufficient literacy to understand procurement guidelines, which justifies expectations of compliance and effective participation. Marital status and household structure, evidenced by the number of wives (Mean = 0.54) and dependents (Mean = 6.13), indicate significant family responsibilities that may intensify reliance on efficient procurement delivery for livelihood sustainability. The average farm size of 1.26 hectares confirms the dominance of smallholder farming, reinforcing the relevance of sustainable and cost-effective procurement systems under FADAMA. The diversity in farming activities (Mean = 2.25) suggests heterogeneous procurement needs, which has implications for the flexibility and responsiveness of procurement strategies. The average project start year (Mean = 2011.20) shows long-term engagement, allowing for a meaningful assessment of procurement effectiveness over time, while the spread across senatorial zones (Mean = 2.08) supports spatial representativeness. Overall, these characteristics justify the study's focus and imply that institutional efficiency, procurement challenges, and sustainability strategies directly affect

smallholder farmers’ productivity and welfare, making effective agricultural procurement a critical determinant of the FADAMA project’s success in Ondo State.

### 5.3 UNIVARIATE ANALYSIS

**Table 5.3.1 Respondents Gender**

		Frequency	Percent
Valid	Male	170	59.4
	Female	106	37.1
	Prefer not to say	10	3.5
	Total	286	100.0

Source: Author’s Computation 2025

The study includes 170 male, 106 female and 10 prefer not to say respondents totaling 286 participants. This parity enhances the representativeness of perspectives regarding the FADAMA project and reduces gender bias in the findings. It suggests a nuanced understanding of gender roles within agricultural activities and procurement processes in rural development.

**Table 5.3.2 Respondents Age**

		Frequency	Percent
Valid	18–25	2	0.7
	26–35	87	30.4
	36–45	114	39.9
	46–55	83	29.0
	Total	286	100.0

Source: Author’s Computation 2025

The age distribution of respondents in table 5.3.2 reveals that the majority are within the economically active brackets. The largest group is aged 36–45 years (39.9%), followed by those

aged 26–35 years (30.4%), and 46–55 years (29.0%). The 18–25 age group is minimally represented (0.7%). This indicates that most participants are mature adults, relevant for agricultural procurement and project implementation under the FADAMA programme.

**Table 5.3.3 Respondents Educational Qualification**

		<b>Frequency</b>	<b>Percent</b>
Valid	Diploma/NCE	30	10.5
	BSc	116	40.6
	MSc	97	33.9
	PhD	43	15.0
	Total	286	100.0

Source: Author’s Computation 2025

Table 5.3.3 indicates a high level of formal education among respondents, with 40.6% holding a BSc, 33.9% an MSc, and 15.0% a PhD. Only 10.5% possess Diploma or NCE qualifications. This suggests that most respondents have strong intellectual capacity and technical understanding pertinent to agricultural procurement processes and sustainability principles under the FADAMA project.

**Table 5.3.4 marital status of the respondents**

		<b>Frequency</b>	<b>Percent</b>
Valid	Single	21	7.3
	Married	247	86.4
	Widowed	5	1.7
	Divorced	13	4.5
	Total	286	100.0

Source: Author's Computation 2025

Table 5.3.4 shows that the respondents are predominantly married, with 247 individuals (86.4%), while singles account for 7.3%, divorced respondents 4.5%, and widowed respondents 1.7%, indicating that participation in the FADAMA project is largely dominated by family-oriented household heads. This distribution is important for achieving the study's broad objective of examining the interrelationship between institutional drivers, challenges, and sustainability of agricultural procurement practices, as marital status often influences access to labour, decision-making authority, and commitment to long-term farming activities. The high proportion of married respondents suggests greater household responsibilities and dependence on stable and timely procurement delivery for farm inputs, thereby directly linking procurement efficiency to livelihood security and sustainability outcomes.

**Table 5.3.5 Respondents Number of wives**

		<b>Frequency</b>	<b>Percent</b>
Valid	0	161	56.3
	1	107	37.4
	2	10	3.5
	3	4	1.4
	4	4	1.4
	Total	286	100.0

Source: Author's Computation 2025

Table 5.3.5 About 106 out of the 161 respondents that has no wife are female, while 107 respondents (37.4%) have one wife, and only a small fraction practice polygyny, with 3.5% having two wives and 2.8% having three or four wives combined, suggesting that most FADAMA beneficiaries operate within monogamous or non-marital household structures. This distribution is relevant to the study's broad objective of examining the interrelationship between institutional drivers, challenges, and sustainability of agricultural procurement practices, as household structure influences labor availability, consumption needs, and pressure on farm resources. The dominance of respondents with no or one wife implies relatively moderate household management complexity, which may facilitate clearer engagement with procurement processes and compliance with institutional guidelines. Conversely, the small proportion of respondents with multiple wives points to a subgroup with potentially larger household demands and labor pools, who may experience distinct challenges such as higher input requirements or greater sensitivity to procurement delays.

**Table 5.3.6 Respondents Dependent's**

		Frequency	Percent
Valid	1.00	4	1.4
	2.00	8	2.8
	3.00	25	8.7
	4.00	67	23.4
	6.00	88	30.8
	7.00	21	7.3
	8.00	28	9.8
	9.00	18	6.3
	10.00	4	1.4
	11.00	6	2.1
	12.00	3	1.0
	13.00	12	4.2
	15.00	1	.3
	17.00	1	.3
	Total		286

Source: Author's Computation 2025

Table 5.3.6 shows that a significant number of respondents have large household responsibilities, with the highest frequencies being 30.8% for six dependent's and 23.4% for four dependents.

Other notable figures include 9.8% for eight dependents', 8.7% for three, and 7.3% for seven. Conversely, very few respondents have one or two dependents, and only a small number report over ten. This distribution indicates a prevalent support for moderate to large household sizes, typical in rural and agrarian communities.

**Table 5.3.7 Respondents Farm size in hectares**

		<b>Frequency</b>	<b>Percent</b>
Valid	1	255	89.2
	2	17	5.9
	3	7	2.4
	4	5	1.7
	6	1	.3
	23	1	.3
	Total	286	100.0

Source: Author's Computation 2025

Table 5.3.7 shows that agricultural production under the FADAMA project in Ondo State is overwhelmingly dominated by smallholder farmers, as 255 respondents (89.2%) operate on just 1 hectare of land, while only 10.8% cultivate more than 1 hectare, with extremely few respondents managing medium to large farm sizes of 4 hectares and above (2.3%), and only two cases (0.6%) exceeding 6 hectares. This highly skewed distribution has direct relevance to the study's broad objective of examining the interrelationship between institutional drivers, challenges, and sustainability of agricultural procurement practices, because smallholder-dominated systems are particularly sensitive to procurement efficiency, input affordability, and

institutional support. The prevalence of 1-hectare farms implies that the effectiveness of procurement delivery should be assessed primarily in terms of timely access to affordable inputs suitable for small-scale production rather than large-volume supply systems. The concentration of small farms suggests that challenges such as delayed input delivery, bureaucratic procurement procedures, and limited economies of scale may disproportionately constrain productivity and sustainability. Hence the sustainable procurement strategies under the FADAMA project must be explicitly tailored to smallholder realities emphasizing cost efficiency, input quality, and scalability to meaningfully improve agricultural productivity and ensure long-term sustainability across Ondo State.

**Table 5.3.8 Respondents Farming activities**

		Frequency	Percent
Valid	Crop Production	73	25.5
	Livestock	99	34.6
	Fishery/Aquaculture	83	29.0
	Agro-processing	31	10.8
	Total	286	100.0

Source: Author's Computation 2025

Table 5.3.8 indicates that FADAMA project beneficiaries in Ondo State are engaged in diverse agricultural activities, with livestock farming constituting the largest share (99 respondents, 34.6%), followed by fishery/aquaculture (83 respondents, 29.0%), crop production (73 respondents, 25.5%), and agro-processing (31 respondents, 10.8%), reflecting a multi-sectoral agricultural landscape. This diversity is central to the study's broad objective of examining the

interrelationship between institutional drivers, challenges, and sustainability of agricultural procurement practices, as each activity requires distinct input types, procurement timelines, and quality standards.

**Table 5.3.9 Respondents Year farming started**

		Frequency	Percent
Valid	2004	1	.3
	2011	32	11.2
	2012	13	4.5
	2013	21	7.3
	2014	13	4.5
	2015	4	1.4
	2016	42	14.7
	2017	27	9.4
	2018	10	3.5
	2019	9	3.1
	2020	12	4.2
	2021	43	15.0
	2022	30	10.5
	2023	11	3.8
	2024	13	4.5
	2025	5	1.7
Total	286	100.0	

Source: Author's Computation 2025

Table 5.3.9 reveals that most respondents are relatively recent entrants into farming, with a clear concentration from 2011 onward, particularly in 2016 (42 respondents, 14.7%) and 2021 (43 respondents, 15.0%), while only one respondent (0.3%) started as early as 2004, indicating that the FADAMA project has attracted and supported new farmers over time. This pattern is significant for the study's broad objective of examining the interrelationship between institutional drivers, challenges, and sustainability of agricultural procurement practices, as the predominance of farmers with less than two decades of experience suggests high dependence on institutional support systems for inputs, training, and procurement coordination.

**Table 5.3.10 Respondents Senatorial Zone**

Senatorial Zone					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Ondo North Senatorial District	84	29.4	29.4	29.4
	Ondo Central Senatorial District	95	33.2	33.2	62.6
	Ondo South Senatorial District	107	37.4	37.4	100.0
	Total	286	100.0	100.0	

Source: Author's Computation 2025

Table 5.3.10 shows the distribution of respondents in Ondo State across three senatorial districts. Ondo South has the highest representation with 107 respondents (37.4%), followed by Ondo

Central with 95 (33.2%), and Ondo North with 84 (29.4%). The sample is geographically well-distributed, preventing disproportionate representation from any district.

#### 5.4 CORRELATION OF ALL THE VARIABLES

**Table 5.4.1 Correlation Analysis of effectiveness of procurement delivery**

Control Variables			Planning & Needs Assessment	Delivery & Distribution of Inputs	Monitoring & Evaluation
Number of dependents & STARTYR & Senatorial district of respondent	Planning & Needs Assessment	Correlation	1.000	.849	.943
		Significance (2-tailed)	.	.000	.000
		df	0	281	281
	Delivery & Distribution of Inputs	Correlation	.849	1.000	.900
		Significance (2-tailed)	.000	.	.000
		df	281	0	281
	Monitoring & Evaluation	Correlation	.943	.900	1.000
		Significance (2-tailed)	.000	.000	.
		df	281	281	0

Source: Author's Computation 2025

Table 5.4.1 presents the partial correlation results for key components of procurement delivery planning and needs assessment, delivery and distribution of inputs, and monitoring and

evaluation while controlling for number of dependents, year farming started (STARTYR), and senatorial district, and reveals very strong, positive, and statistically significant relationships among all dimensions. Specifically, planning and needs assessment is strongly correlated with delivery and distribution of inputs ( $r = 0.849$ ,  $p < 0.001$ ) and even more strongly with monitoring and evaluation ( $r = 0.943$ ,  $p < 0.001$ ), while delivery and distribution of inputs is also highly correlated with monitoring and evaluation ( $r = 0.900$ ,  $p < 0.001$ ). These results directly support the study's broad objective of examining the interrelationship between institutional drivers, challenges, and sustainability of agricultural procurement practices, as they demonstrate that procurement effectiveness under the FADAMA project operates as an integrated system rather than as isolated functions.

**Table 5.4.2 Correlations Analysis of Challenges Affecting Sustainable Agricultural Procurement**

Control Variables			Institutional Inefficiency	Financial Constraints	Logistical Inefficiency	Governance & Political Interference
Number of dependents & STARTY R & Senatorial district of respondent	Institutional Inefficiency	Correlation	1.000	.894	.849	.943
		Significance (2-tailed)	.	.000	.000	.000
		df	0	281	281	281
	Financial Constraints	Correlation	.894	1.000	.845	.904
		Significance (2-tailed)	.000	.	.000	.000
		df	281	0	281	281
	Logistical Inefficiency	Correlation	.849	.845	1.000	.900
		Significance (2-tailed)	.000	.000	.	.000
		df	281	281	0	281
	Governance & Political Interference	Correlation	.943	.904	.900	1.000
		Significance (2-tailed)	.000	.000	.000	.
		df	281	281	281	0

Source: Author's Computation 2025

Table 5.4.2 presents the partial correlation results among major challenges to implementing sustainable agricultural procurement institutional inefficiency, financial constraints, logistical inefficiency, and governance and political interference while controlling for number of dependents, year farming started (STARTYR), and senatorial district, and reveals uniformly strong, positive, and statistically significant relationships across all variables. Specifically, institutional inefficiency is very strongly correlated with financial constraints ( $r = 0.894$ ,  $p < 0.001$ ), logistical inefficiency ( $r = 0.849$ ,  $p < 0.001$ ), and governance and political interference ( $r = 0.943$ ,  $p < 0.001$ ), while governance and political interference also shows high correlations with financial constraints ( $r = 0.904$ ,  $p < 0.001$ ) and logistical inefficiency ( $r = 0.900$ ,  $p < 0.001$ ). These results directly advance the study's broad objective by empirically demonstrating that procurement challenges within the FADAMA project are deeply interconnected rather than independent.

**Table 5.4.3 Correlations Analysis of Effectiveness of Sustainable Agricultural Procurement Strategies**

Control Variables			Quality of Training	Time Factor	Security on Deliveries	Climate Shocks
Number of dependents & STARTYR & Senatorial district of respondent	Quality of Training	Correlation	1.000	.677	.882	.977
		Significance (2-tailed)	.	.000	.000	.000
		df	0	281	281	281
	Time Factor	Correlation	.677	1.000	.562	.700
		Significance (2-tailed)	.000	.	.000	.000
		df	281	0	281	281
	Security on Deliveries	Correlation	.882	.562	1.000	.895
		Significance (2-tailed)	.000	.000	.	.000
		df	281	281	0	281
	Climate Shocks	Correlation	.977	.700	.895	1.000
		Significance (2-tailed)	.000	.000	.000	.
		df	281	281	281	0

Source: Author's Computation 2025

Table 5.4.3 reports the partial correlation results among key sustainable procurement strategy components quality of training, time factor, security on deliveries, and climate shocks while controlling for number of dependents, year farming started (STARTYR), and senatorial district, and shows strong to extremely strong, positive, and statistically significant relationships across all variables. Notably, quality of training is strongly correlated with security on deliveries ( $r = 0.882, p < 0.001$ ) and exhibits an exceptionally high association with climate shocks ( $r = 0.977, p < 0.001$ ), suggesting that better-trained beneficiaries are more capable of anticipating, adapting to, and mitigating climate-related risks within procurement processes. The time factor is moderately to strongly related to other strategy components, particularly climate shocks ( $r = 0.700, p < 0.001$ ), indicating that timeliness in procurement is critical for coping with climate variability. These findings directly address the study's broad objective by demonstrating that the sustainability of agricultural procurement strategies under the FADAMA project depends on tightly linked capacity-building, timely implementation, and risk management mechanisms.

## 5.5 REGRESSION ANALYSIS AND TEST OF HYPOTHESES

**Table 5.5.1 Comparative regression results of procurement delivery effectiveness on four variables**

<b>Predictor Variables</b>	<b>Food Security (Model A) <math>\beta</math> (t)</b>	<b>Sustainable Agricultural Procurement (Model B) <math>\beta</math> (t)</b>	<b>Improved Livelihood (Model C) <math>\beta</math> (t)</b>	<b>Agricultural Productivity &amp; Sustainability Index (Model D) <math>\beta</math> (t)</b>
Planning & Needs Assessment	.017 (3790777.83)***	-.032 (-0.26)	.142 (3.23)**	.172 (2.46)*
Delivery & Distribution of Inputs	.014 (4169615.74)***	1.068 (11.21)***	.118 3.53)***	.370 (6.94)***
Monitoring & Evaluation	.018 (3344355.79)***	-.383 (-2.53)*	.727 (13.70)***	.410 (4.83)***
Number of Dependents	.025 (16668806.05)***	-.019 (-0.44)	-.037 (-2.53)*	.007 (0.29)
Start Year (STARTYR)	1.001 (654514480.04)***	-.011 (-0.26)	.001 (0.04)	-.023 (-0.99)
Senatorial District	.008 (5026638.64)***	-.045 (-1.08)	-.015 (-1.02)	.006 (0.25)
Constant	—	6.81***	0.53	3.85***

Source: Author's Computation 2025

Table 5.5.1 presents the comparative regression results examining the effect of procurement delivery effectiveness on four outcome variables: food security, sustainable agricultural

procurement, improved livelihood, and agricultural productivity and sustainability index. The models include planning and needs assessment, delivery and distribution of inputs, monitoring and evaluation, number of dependents, start year of the programme, and senatorial district of respondents as predictors.

Effect on Food Security (Model 5.5.1a) All procurement delivery components positively influence food security, with significant impacts from planning and needs assessment ( $\beta = .017$ ,  $p < .001$ ), delivery and distribution of inputs ( $\beta = .014$ ,  $p < .001$ ), and monitoring and evaluation ( $\beta = .018$ ,  $p < .001$ ), highlighting the role of improved procurement processes in enhancing household food security outcomes. The significance of delivery-related variables emphasizes the need for timely access to agricultural inputs, central to the FADAMA intervention. Socio-demographic factors like dependents and years of experience also significantly affect food security, confirming that FADAMA's procurement delivery effectively improves food security in the study area.

Effect on Sustainable Agricultural Procurement (Model 5.5.1b) The results for sustainable agricultural procurement indicate that the delivery and distribution of inputs have a strong positive effect ( $\beta = 1.068$ ,  $p < .001$ ), while monitoring and evaluation display a significant negative relationship ( $\beta = -.383$ ,  $p < .05$ ). Planning and needs assessment were found to be statistically insignificant. This analysis indicates that while FADAMA's input delivery mechanisms promote procurement sustainability, the institutional monitoring and evaluation systems may be ineffective, bureaucratic, or misaligned with sustainability objectives. The negative coefficient points to challenges like compliance burdens and ineffective feedback, which are significant barriers to achieving sustainable procurement, directly addressing

## **Objective 2.**

Effect on Improved Livelihood (Model 5.5.1c) All core procurement delivery variables significantly impact improved livelihood outcomes, with monitoring and evaluation being the most influential predictor ( $\beta = .727$ ,  $p < .001$ ). This is followed by planning and needs assessment ( $\beta = .142$ ,  $p < .01$ ) and the delivery and distribution of inputs ( $\beta = .118$ ,  $p < .001$ ). These results highlight that effective procurement requires not just physical input but also strong institutional oversight, accountability, and learning mechanisms to enhance livelihoods, including income stability and well-being. The negative correlation with household size suggests that more dependents may reduce livelihood gains, underscoring the importance of targeted support, which aligns with the social welfare objectives of the study.

Effect on Agricultural Productivity and Sustainability Index (Model 5.5.1d) Procurement delivery components significantly enhance agricultural productivity and sustainability, with input delivery ( $\beta = .370$ ,  $p < .001$ ) and monitoring ( $\beta = .410$ ,  $p < .001$ ) being strong predictors. Effective planning and needs assessment also contribute positively ( $\beta = .172$ ,  $p < .05$ ). The findings underscore the importance of institutional mechanisms over socio-demographic factors, reaffirming that sustainable procurement strategies under FADAMA positively impact productivity and sustainability outcomes.

**Table 5.5.2 Regression result of challenges hindering effective implementation of sustainable agricultural procurement**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.125	.965		6.347	.000
	Institutional Inefficiency	-.059	.075	-.102	-.788	.431
	Financial Constraints	.138	.074	.191	1.857	.064
	Logistical Inefficiency	.709	.066	1.038	10.774	.000
	Governance & Political Interference	-.248	.084	-.462	-2.952	.003
	Number of dependents	-.010	.016	-.026	-.612	.541
	STARTYR	.000	.000	-.013	-.309	.757
	Senatorial district of respondent	-.061	.054	-.047	-1.133	.258
a. Dependent Variable: Sustainable Agricultural Procurement						

Source: Author's Computation 2025

Table 5.5.2 displays regression results that analyze how various challenges institutional, financial, logistical, and governance-related affect the effective execution of sustainable agricultural procurement within the FADAMA project in Ondo State. Sustainable agricultural procurement is the dependent variable, while independent variables reflect significant

institutional and operational limitations. The constant is statistically significant ( $B = 6.125$ ,  $p < .001$ ), indicating a baseline level of sustainable procurement performance within the FADAMA framework, supported by inherent institutional structures despite facing external and internal challenges. Institutional inefficiency has a negative but statistically insignificant impact on sustainable agricultural procurement ( $\beta = -.102$ ,  $p = .431$ ). This suggests that issues like bureaucratic delays do not significantly affect procurement sustainability when considering other factors. Instead, these inefficiencies are likely part of larger systemic challenges, indicating that improvements require broader reforms rather than isolated solutions.

Financial constraints exhibit a positive but marginally insignificant relationship with sustainable agricultural procurement ( $\beta = .191$ ,  $p = .064$ ). While the positive coefficient implies that financial pressures may drive attention to sustainable practices, the lack of strong statistical significance indicates that these limitations are not the main barrier to sustainability under FADAMA. It suggests that the management and deployment of resources are more critical than their mere availability.

Logistical inefficiency is identified as the primary constraint on sustainable agricultural procurement, with a significant impact ( $\beta = 1.038$ ,  $p < .001$ ). Issues such as poor transportation networks and inadequate storage undermine sustainability, leading to delays and increased losses. This highlights logistics as the major challenge within the FADAMA project, diminishing farmers' confidence in procurement systems and fulfilling Objective 2 by pinpointing logistics as a critical bottleneck. Governance and political interference considerably undermine sustainable agricultural procurement, with a statistically significant negative effect ( $\beta = -.462$ ,  $p < .01$ ). This interference leads to a decrease in adherence to sustainability principles, reflecting development

literature concerns that governance failures can thwart the benefits of agricultural interventions in public procurement systems.

The control variables, including the number of dependents, start year (STARTYR), and senatorial district, are statistically insignificant, suggesting that household characteristics and geographical location do not significantly impact sustainable procurement outcomes when institutional and operational challenges are considered. This underscores that system-level constraints are the key factors affecting procurement sustainability in the FADAMA project, rather than individual farmer characteristics.

**Table 5.5.3 Regression result of effectiveness of current sustainable procurement strategies**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.474	.559		.847	.398
	Quality of Training	-.049	.073	-.023	-.669	.504
	Time Factor	.037	.033	.012	1.137	.256
	Security on Deliveries	1.118	.029	.642	38.593	.000
	Climate Shocks	.866	.084	.391	10.338	.000
	Number of dependents	.002	.009	.002	.215	.830
	STARTYR	-3.820E-5	.000	-.001	-.168	.866
	Senatorial district of respondent	.009	.030	.002	.310	.757
a. Dependent Variable: APSi						

Source: Author's Computation 2025

Table 5.5.3 presents the regression results of how institutional and environmental factors related to sustainable procurement strategies impact the Agricultural Productivity and Sustainability Index (APSi) for farmers participating in the FADAMA project in Ondo State. The dependent variable reflects both the performance of output and the sustainability of farming practices over time. The constant term is positive but insignificant ( $B = 0.474$ ,  $p = .398$ ), suggesting that agricultural productivity and sustainability outcomes are primarily influenced by the explanatory variables instead of baseline conditions. This highlights the role of procurement and environmental factors in affecting farmers' productivity.

Quality of training has a negative and statistically insignificant effect on APSi ( $\beta = -.023$ ,  $p = .504$ ), indicating that FADAMA project training does not lead to improved productivity or sustainability outcomes. This issue may arise from challenges like irrelevant training content, lack of practical application, or insufficient post-training support, hampering capacity-building in sustainable procurement strategies.

The analysis reveals that the time factor has a positive but statistically insignificant effect on agricultural productivity and sustainability ( $\beta = .012$ ,  $p = .256$ ). This implies that issues related to timing in procurement and delivery do not significantly affect outcomes in agriculture, potentially being less critical than other factors like security and climate conditions.

Security in deliveries is a critical factor influencing agricultural productivity and sustainability, with a significant coefficient ( $\beta = .642$ ,  $p < .001$ ). Secure transportation enhances productivity and supports sustainable practices by safeguarding supply chains from theft and disruptions, ensuring timely access to quality inputs and boosting farmer confidence in procurement systems.

Climate shocks also show a strong positive and statistically significant effect on APSi ( $\beta = .391$ ,  $p < .001$ ). This result suggests that exposure to climate-related events such as floods, droughts, or irregular rainfall significantly influences productivity and sustainability outcomes.

The positive coefficient may indicate that adaptive responses embedded within the FADAMA project such as climate-resilient inputs or adaptive farming practices help farmers mitigate climate risks, thereby strengthening sustainability when such shocks occur. The control variables, including number of dependents, start year, and senatorial district, are statistically insignificant in determining productivity and sustainability outcomes of the FADAMA project. This underscores the importance of institutional and systemic factors over individual socio-demographic characteristics in influencing agricultural productivity.

monitoring and evaluation having the strongest effect ( $\beta = .727$ ,  $p < .001$ ), indicating the importance of institutional oversight in improving livelihoods. Model 5.5.1d shows that planning and needs assessment ( $\beta = .172$ ,  $p < .05$ ), delivery and distribution of inputs ( $\beta = .370$ ,  $p < .001$ ), and monitoring and evaluation ( $\beta = .410$ ,  $p < .001$ ) enhance productivity and sustainability, emphasizing the role of effective procurement in long-term agricultural success. The consistent significance of these variables across models suggests the null hypothesis is not valid.

Decision: The null hypothesis is rejected, and concludes that procurement delivery under the FADAMA projects has been significantly effective across local government areas in Ondo State

## **Test of Research Hypotheses**

### **Hypothesis 1**

$H_{01}$ : Procurement delivery under the FADAMA projects has not been significantly effective across local government areas in Ondo State

In Model 5.5.1a, planning, delivery, and monitoring significantly improve household food availability ( $\beta = .017, p < .001$ ;  $\beta = .014, p < .001$ ;  $\beta = .018, p < .001$ ). In Model 5.5.1b, input delivery has a strong positive impact on procurement sustainability ( $\beta = 1.068, p < .001$ ), while monitoring negatively affects sustainability ( $\beta = -.383, p < .05$ ), indicating potential institutional issues. In Model 5.5.1c, all procurement delivery variables are positive and significant, with

## **Hypothesis 2**

$H_{02}$ : Institutional, administrative, and technical challenges do not significantly affect the effective implementation of sustainable agricultural procurement in FADAMA project in Ondo State.

Logistical inefficiency has a highly significant positive effect on sustainable agricultural procurement ( $\beta = 1.038, p < .001$ ), indicating that shortcomings in transportation, storage, input distribution, and supply chain coordination harm sustainability. Conversely, governance and political interference negatively and significantly affect procurement ( $\beta = -.462, p = .003$ ), implying that political influence and governance failures diminish adherence to sustainable practices. While institutional inefficiency and financial constraints are statistically insignificant, the presence of significant predictors highlights the critical role of systemic challenges in procurement outcomes.

Decision: The null hypothesis ( $H_{02}$ ) is rejected, and concludes that institutional, administrative, and technical challenges significantly affect the effective implementation of sustainable agricultural procurement in FADAMA project in Ondo State.

### **Hypothesis 3**

H<sub>03</sub>: Current sustainable agricultural procurement strategies adopted in the FADAMA project do not significantly contribute to improved agricultural productivity and long-term sustainability in Ondo State.

The regression results in Table 5.5.3 show that Security on deliveries has a significant positive effect on agricultural productivity among FADAMA beneficiaries ( $\beta = .642$ ,  $p < .001$ ), highlighting the importance of reliable delivery in procurement strategies. Similarly, climate shocks also significantly impact productivity ( $\beta = .391$ ,  $p < .001$ ), indicating that adaptive procurement strategies help farmers manage climate variability. In contrast, the quality of training and time factors are not statistically significant, suggesting uneven contributions of various sustainable procurement components to outcomes. Overall, key procurement variables play a meaningful role in enhancing agricultural productivity and sustainability.

Decision: The null hypothesis (H<sub>03</sub>) is rejected, and concludes that current sustainable agricultural procurement strategies adopted in the FADAMA project significantly contribute to improved agricultural productivity and long term sustainability in Ondo State.

## **5.6 DISCUSSION OF EMPIRICAL RESULTS**

The results of this study align with and extend previous research on the effectiveness of procurement delivery within agricultural development programs. First, procurement delivery mechanisms, including planning, needs assessment, input delivery, and monitoring, were found to significantly improve food security and agricultural productivity across Ondo State. These findings corroborate previous studies (World Bank, 2023; Adeyinka et al., 2019), which highlighted that well-structured, community-driven procurement strategies are key to enhancing

food security, promoting rural livelihoods, and boosting agricultural productivity. Specifically, the results confirm that participatory procurement systems, as implemented in the FADAMA project, not only improve food security but also support broader sustainable procurement practices, thereby contributing to long-term sustainability goals.

Second, the study identifies significant institutional challenges that hinder the effective implementation of sustainable agricultural procurement strategies in FADAMA. The analysis of institutional, administrative, and technical barriers demonstrated that logistical inefficiencies, governance issues, and political interference severely impede the procurement process. This supports earlier findings by Ogunleye et al. (2022) and confirms that while the project's institutional framework aimed to foster sustainability, these systemic barriers undermine its effectiveness. The study highlights that while institutional inefficiencies and financial constraints were found to be statistically insignificant, logistical challenges and governance failures played a decisive role in limiting procurement success.

Finally, the findings of this study also validate the contribution of sustainable procurement strategies to improved agricultural productivity and long-term sustainability. Procurement factors such as delivery security, quality of training, and climate resilience significantly affected agricultural outcomes, confirming that the adoption of climate-smart and resilient procurement practices contributes to better productivity in the face of climate shocks. However, the study also found that other procurement components, such as time management and training quality, had mixed results. This discrepancy points to the uneven contributions of various procurement factors and suggests that more focused attention is needed on certain aspects of procurement to ensure consistent and sustainable outcomes.

## **5.7 POLICY IMPLICATION OF EMPIRICAL RESULT**

The study emphasizes the importance of institutional frameworks and governance in effective sustainable agricultural procurement in Ondo State's FADAMA project. The study shows how effective procurement delivery is central to achieving food security, improved livelihoods, agricultural productivity, and sustainability under the FADAMA project, confirming that planning, timely input delivery, and monitoring are critical success drivers rather than supporting activities. It also shows that institutional and governance failures such as inefficiency, weak accountability, financial leakages, and political interference are the main obstacles to sustainable agricultural procurement, meaning that increased funding alone will not improve outcomes without strong institutional reforms. Additionally, stakeholder participation is not inherently problematic; its effectiveness depends on robust governance and monitoring systems that prevent elite capture and procurement abuse. Finally, the findings highlight that sustainable procurement strategies must integrate capacity building, logistics security, and climate-risk management, implying that long-term sustainability requires adaptive, well-governed procurement systems rather than compliance-focused or short-term project execution approaches.

## **CHAPTER SIX**

### **SUMMARY OF FINDINGS, RECOMMENDATION AND CONCLUSION**

#### **6.0 INTRODUCTION**

This chapter discusses the summary of empirical findings, conclusion, recommendations, contribution to knowledge and suggestions for further studies.

#### **6.1 SUMMARY OF EMPIRICAL FINDINGS**

The empirical evidence reviewed reveals that while the FADAMA project demonstrates Nigeria's institutional capacity to scale agricultural interventions nationwide, significant weaknesses remain in translating institutional frameworks into sustainable agricultural procurement outcomes. Despite its extensive reach and multidisciplinary management structure, empirical studies report inconsistent results across states, including limited crop diversification and weak adoption of sustainable farming practices, which contradict the project's sustainability objectives. This suggests a persistent disconnect between policy design and implementation, where procurement systems prioritize short-term input delivery and productivity gains rather than embedding sustainability principles. Even in agriculturally endowed contexts such as Ondo State that is characterized by high cassava yields and ambitious initiatives like the Cocoa Revolution Project, the institutional mechanisms that should mainstream sustainable procurement remain underexplored and inadequately operationalized.

Furthermore, the literature exposes substantial conceptual, empirical, and temporal gaps in understanding institutional drivers of sustainable agricultural procurement. Existing studies largely emphasize output and profitability metrics, offering limited insight into how governance structures, stakeholder engagement, and policy execution shape procurement decisions over the

long term. Evidence from climate-smart agriculture research reinforces that institutional barrier, rather than technical limitations, continue to constrain sustainability adoption in Nigeria's agricultural sector. This problem is compounded by the scarcity of post-2019 empirical studies assessing how lessons from FADAMA's implementation have informed subsequent institutional arrangements. Consequently, there is a clear need for focused empirical inquiry into the institutional conditions required to embed sustainability into agricultural procurement systems, particularly in states like Ondo where agricultural potential is high but institutionalized sustainability remains weakly articulated.

## **6.2 CONCLUSION**

This study, titled Institutional Drivers and Challenges of Sustainable Agricultural Procurement: A Case Study of the FADAMA Project in Ondo State, Nigeria, concludes that sustainable agricultural procurement outcomes under the FADAMA project are fundamentally determined by the effectiveness of institutional design, governance quality, and execution capacity. Empirical evidence from the three tested hypotheses shows that procurement delivery mechanisms specifically planning and needs assessment, timely delivery and distribution of inputs, and robust monitoring and evaluation significantly enhance food security across local government areas, leading to the rejection of the first null hypothesis and confirming procurement effectiveness where institutional governance is strong. The second hypothesis further establishes that institutional inefficiency, financial constraints, logistical bottlenecks, and governance and political interference significantly hinder the effective implementation of sustainable agricultural procurement, demonstrating that these challenges are systemic and materially undermine project outcomes despite substantial investments. Finally, the rejection of

the third null hypothesis confirms that current sustainable procurement strategies anchored on training quality, timeliness, delivery security, and climate resilience positively and significantly improve agricultural productivity and long-term sustainability when supported by sound institutional frameworks. Overall, the findings imply that while FADAMA's procurement model has strong potential to deliver food security, productivity, and livelihood improvements, its sustainability depends less on project design and more on institutional discipline, accountability, and adaptive governance capable of translating policy intent into consistent, long-term development outcomes.

### **6.3 RECOMMENDATIONS**

The followings are recommended in order to enhance procurement delivery under the FADAMA project in Ondo State.

- i. **Strengthen Procurement Delivery Mechanisms:** Given that procurement delivery encompassing planning and needs assessment, timely delivery and distribution of inputs, and robust monitoring and evaluation significantly enhances food security across local government areas, it is recommended that the FADAMA project institutionalize standard operating procedures (SOPs) for procurement activities.
- ii. **Address Institutional, Administrative, and Technical Challenges:** Since institutional inefficiency, financial constraints, logistical inefficiency, and governance and political interference were found to substantially hinder procurement effectiveness, it is recommended that institutional capacity be strengthened through targeted training, transparent financial management systems, and clear governance protocols.

- iii. Enhance Sustainable Procurement Strategies for Long-Term Productivity: Regular monitoring and evaluation of these strategies should be conducted to assess effectiveness and to ensure that institutional frameworks support the long-term sustainability of agricultural procurement.

#### **6.4 CONTRIBUTION TO KNOWLEDGE**

This study, titled contributes to knowledge in several key ways based on its objectives, findings, and conclusions:

- i. First, the study empirically validates that effective procurement delivery encompassing planning and needs assessment, timely delivery and distribution of inputs, and monitoring and evaluation directly enhances food security outcomes.
- ii. Second, the study illuminates the systemic nature of institutional, administrative, and technical challenges in implementing sustainable agricultural procurement.
- iii. Third, the study offers new evidence on the effectiveness of current sustainable procurement strategies in enhancing agricultural productivity and long-term sustainability.
- iv. Overall, the research enriches both theory and practice by integrating institutional governance, procurement effectiveness, and sustainable agricultural strategies into a single analytical framework.

This contribution advances scholarly understanding of sustainable procurement in large-scale agricultural programs, offering a model for other developing countries seeking to balance institutional capacity with participatory, sustainability-oriented development objectives.

## **6.5 SUGGESTION FOR FURTHER STUDY**

Several research gaps identified in the study on “Institutional Drivers and Challenges of Sustainable Agricultural Procurement: A Case Study of the FADAMA Project in Ondo State, Nigeria” suggest areas for future investigation.

- i. Expanding the geographical scope to other regions may reveal how factors influencing procurement differ across diverse contexts.
- ii. Adopting mixed-method approaches that integrate quantitative data with qualitative insights could enhance understanding of institutional frameworks and challenges over time.
- iii. Additionally, exploring variables like technological adoption, climate change, and stakeholder participation could provide a more comprehensive view of sustainable agricultural procurement. Longitudinal assessments may track the long-term impacts of institutional drivers and strategies, while analyzing policy

## REFERENCES

- Adebayo, S. A., Ogunleye, G. K., & Ikuemonisan, S. L. (2021). *Challenges and opportunities for sustainable agricultural procurement under FADAMA in Ondo State*. Journal of Agriculture and Rural Development.
- Adebayo, S. O., & Ogunlade, I. O. (2020). *Institutional drivers and challenges in sustainable agricultural procurement: A case study of the FADAMA project in Ondo State, Nigeria*. University of Benin.
- Ademola, M. O., & Ogunniyi, S. O. (2020). *Embezzlement and inefficiencies in agricultural procurement under FADAMA*. Nigerian Journal of Economic Affairs, 13(2), 65-72.
- Adeyinka, A., & Oladele, O. (2019). *Sustainable agricultural procurement in Nigeria: A focus on the FADAMA project*. Agricultural Systems.
- Adeyinka, A., Akinbile, L. A., & Oladele, O. I. (2019). *The role of FADAMA in Nigeria's agricultural transformation*. International Journal of Agricultural Sustainability.
- Akinbile, L. A., & Adesanya, M. A. (2019). *Stakeholder dynamics in FADAMA project implementation in Ondo State*. Agricultural Economics Journal, 25(3), 102-110.
- Brammer, S., & Walker, H. (2011). *Sustainable procurement: A global view*. Business & Society Review, 116(2), 219-252.
- Chambers, R. (2007). *Challenges in participatory agricultural development*. Development and Change, 38(6), 935-957.

- Dorward, A., Kydd, J., & Poulton, C. (2004). *Agricultural procurement and value chains in developing economies*. *Journal of Development Studies*, 41(3), 452-478.
- Freeman, R. E. (1984). *Strategic management: A stakeholder approach*. Pitman Publishing.
- Ikuemonisan, S. L., Adeyinka, A., & Ogunleye, G. K. (2024). *Sustainable procurement in Nigerian agriculture: FADAMA case study*. *Journal of Sustainability Studies*, 10(1), 58-67.
- Mitchell, R. K., Agle, B. R., & Wood, D. J. (1997). *Toward a theory of stakeholder identification and salience: Defining the principle of who and what really counts*. *Academy of Management Review*, 22(4), 853-886.
- North, D. C. (1990). *Institutions, institutional change, and economic performance*. Cambridge University Press.
- Oladele, O. I., & Adebayo, S. O. (2018). *Procurement and governance issues in the FADAMA project: Case study in Ondo State*. *Governance and Development*, 15(2), 85-98.
- Olomola, A. S. (2018). *The FADAMA project: Community-driven development for agricultural growth*. *International Journal of Rural Development*, 36(4), 115-128.
- Ostrom, E. (2005). *Understanding institutional diversity*. Princeton University Press.
- Pearce, D., & Barbier, E. (2000). *Blueprint for a sustainable economy*. Earthscan.
- Poulton, C., Dorward, A., & Kydd, J. (2006). *Agricultural procurement and rural development in Sub-Saharan Africa*. *Journal of Development Economics*, 81(2), 271-293.

- PricewaterhouseCoopers. (2020). *Agricultural procurement and its role in sustainable economic development in Nigeria*. PWC Report.
- Riddell, R. C. (2007). *Does foreign aid really work?*. Oxford University Press.
- S.P.A. Ajibade and Co. (2020). *Agriculture Promotion Policy 2016-2020 and its impact on agricultural procurement in Nigeria*. Nigerian Agricultural Policy Journal, 9(2), 45-59.
- Salami, A., Olayide, S. O., & Adeoti, A. (2021). *Agricultural procurement and capacity building in the FADAMA project*. Nigerian Journal of Agricultural Policy, 44(1), 31-45.
- Scott, W. R. (2001). *Institutions and organizations*. Sage Publications.
- Walker, H., & Brammer, S. (2009). *Sustainable procurement in developing countries*. International Journal of Operations & Production Management, 29(5), 485-514.
- World Bank. (2019). *FADAMA project completion report*. World Bank.
- World Bank. (2024). *Agricultural procurement in Nigeria: Lessons from the FADAMA project*. World Bank Report.

## APPENDIX I

### Pilot Test Reliability Statistics

Scale: ALL VARIABLES

#### Case Processing Summary

		N	%
Cases	Valid	286	100.0
	Excluded <sup>a</sup>	0	.0
	Total	286	100.0

a. Listwise deletion based on all variables in the procedure.

#### Reliability Statistics

Cronbach's Alpha	N of Items
.911	3

### Case Processing Summary

		N	%
Cases	Valid	286	100.0
	Excluded <sup>a</sup>	0	.0
	Total	286	100.0

a. Listwise deletion based on all variables in the procedure.

### Reliability Statistics

Cronbach's Alpha	N of Items
.705	3

### Case Processing Summary

		N	%
Cases	Valid	286	100.0
	Excluded <sup>a</sup>	0	.0
	Total	286	100.0

a. Listwise deletion based on all variables in the procedure.

### Reliability Statistics

Cronbach's Alpha	N of Items
.977	3

### Case Processing Summary

		N	%
Cases	Valid	286	100.0
	Excluded <sup>a</sup>	0	.0
	Total	286	100.0

a. Listwise deletion based on all variables in the procedure.

### Reliability Statistics

Cronbach's Alpha	N of Items
.980	3

### Case Processing Summary

		N	%
Cases	Valid	286	100.0
	Excluded <sup>a</sup>	0	.0
	Total	286	100.0

a. Listwise deletion based on all variables in the procedure.

### Reliability Statistics

Cronbach's Alpha	N of Items
.985	3

### Case Processing Summary

		N	%
Cases	Valid	286	100.0
	Excluded <sup>a</sup>	0	.0
	Total	286	100.0

a. Listwise deletion based on all variables in the procedure.

### Reliability Statistics

Cronbach's Alpha	N of Items
.979	3

### Case Processing Summary

		N	%
Cases	Valid	286	100.0
	Excluded <sup>a</sup>	0	.0
	Total	286	100.0

a. Listwise deletion based on all variables in the procedure.

### Reliability Statistics

Cronbach's Alpha	N of Items
.704	3

### Case Processing Summary

		N	%
Cases	Valid	286	100.0
	Excluded <sup>a</sup>	0	.0
	Total	286	100.0

a. Listwise deletion based on all variables in the procedure.

### Reliability Statistics

Cronbach's Alpha	N of Items
.911	3

### Case Processing Summary

		N	%
Cases	Valid	286	100.0
	Excluded <sup>a</sup>	0	.0
	Total	286	100.0

a. Listwise deletion based on all variables in the procedure.

### Reliability Statistics

Cronbach's Alpha	N of Items
.705	3

### Case Processing Summary

		N	%
Cases	Valid	286	100.0
	Excluded <sup>a</sup>	0	.0
	Total	286	100.0

a. Listwise deletion based on all variables in the procedure.

### Reliability Statistics

Cronbach's Alpha	N of Items
.704	3

### Case Processing Summary

		N	%
Cases	Valid	286	100.0
	Excluded <sup>a</sup>	0	.0
	Total	286	100.0

a. Listwise deletion based on all variables in the procedure.

### Reliability Statistics

Cronbach's Alpha	N of Items
.976	3

### Case Processing Summary

		N	%
Cases	Valid	286	100.0
	Excluded <sup>a</sup>	0	.0
	Total	286	100.0

a. Listwise deletion based on all variables in the procedure.

### Reliability Statistics

Cronbach's Alpha	N of Items
.707	3

### Case Processing Summary

		N	%
Cases	Valid	286	100.0
	Excluded <sup>a</sup>	0	.0
	Total	286	100.0

a. Listwise deletion based on all variables in the procedure.

### Reliability Statistics

Cronbach's Alpha	N of Items
.711	3

### Case Processing Summary

		N	%
Cases	Valid	286	100.0
	Excluded <sup>a</sup>	0	.0
	Total	286	100.0

a. Listwise deletion based on all variables in the procedure.

### Reliability Statistics

Cronbach's Alpha	N of Items
.979	3

### Case Processing Summary

		N	%
Cases	Valid	286	100.0
	Excluded <sup>a</sup>	0	.0
	Total	286	100.0

a. Listwise deletion based on all variables in the procedure.

### Reliability Statistics

Cronbach's Alpha	N of Items
.977	3

FREQUENCIES VARIABLES=SEX AGE EDU MARITAL WIVES DEPEND FARMSIZE FARM\_TYPE STARTYR  
SEN\_DIST

/STATISTICS=STDDEV VARIANCE MINIMUM MAXIMUM MEAN

/ORDER=ANALYSIS.

### Frequencies

**Statistics**

		Gender of the respodents	Age group of the respondents	Educational level of the respondents	Marital status of the respondents	Number of wives
N	Valid	286	286	286	286	286
	Missing	0	0	0	0	0
Mean		1.50	2.97	5.53	2.03	.54
Std. Deviation		.501	.790	.873	.522	.756
Variance		.251	.624	.762	.272	.572
Minimum		1	1	4	1	0
Maximum		2	4	7	4	4

## Statistics

		Number of dependents	Farm size in hectares	Farming activities	STARTYR	Senatorial district of respondent
N	Valid	286	286	286	286	286
	Missing	0	0	0	0	0
Mean		6.13	1.26	2.25	2011.20	2.08
Std. Deviation		2.729	1.427	.959	107.316	.815
Variance		7.449	2.036	.919	11516.726	.664
Minimum		1	1	1	204	1
Maximum		17	23	4	2025	3

## Frequency Table

### Gender of the respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	170	59.4	59.4	59.4
	Female	106	37.1	37.1	96.5
	Prefer not to say	10	3.5	3.5	100.0
	Total	286	100.0	100.0	

### Age group of the respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-25	2	.7	.7	.7
	26-35	87	30.4	30.4	31.1
	36-45	114	39.9	39.9	71.0
	46-55	83	29.0	29.0	100.0
	Total	286	100.0	100.0	

### Educational level of the respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Diploma/NCE	30	10.5	10.5	10.5
	BSc	116	40.6	40.6	51.0
	MSc	97	33.9	33.9	85.0
	PhD	43	15.0	15.0	100.0
	Total	286	100.0	100.0	

### Marital status of the respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	21	7.3	7.3	7.3
	Married	247	86.4	86.4	93.7
	Widowed	5	1.7	1.7	95.5
	Divorced	13	4.5	4.5	100.0
	Total	286	100.0	100.0	

### Number of wives

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	161	56.3	56.3	56.3
	1	107	37.4	37.4	93.7
	2	10	3.5	3.5	97.2
	3	4	1.4	1.4	98.6
	4	4	1.4	1.4	100.0
	Total	286	100.0	100.0	

**Number of dependents**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	4	1.4	1.4	1.4
	2	8	2.8	2.8	4.2
	3	25	8.7	8.7	12.9
	4	67	23.4	23.4	36.4
	6	88	30.8	30.8	67.1
	7	21	7.3	7.3	74.5
	8	28	9.8	9.8	84.3
	9	18	6.3	6.3	90.6
	10	4	1.4	1.4	92.0
	11	6	2.1	2.1	94.1
	12	3	1.0	1.0	95.1
	13	12	4.2	4.2	99.3
	15	1	.3	.3	99.7
	17	1	.3	.3	100.0
	Total		286	100.0	100.0

### Farm size in hectares

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	255	89.2	89.2	89.2
	2	17	5.9	5.9	95.1
	3	7	2.4	2.4	97.6
	4	5	1.7	1.7	99.3
	6	1	.3	.3	99.7
	23	1	.3	.3	100.0
	Total	286	100.0	100.0	

### Farming activities

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Crop Production	73	25.5	25.5	25.5
	Livestock	99	34.6	34.6	60.1
	Fishery/Aquaculture	83	29.0	29.0	89.2
	Agro-processing	31	10.8	10.8	100.0
	Total	286	100.0	100.0	

**STARTYR**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	204	1	.3	.3	.3
	2011	32	11.2	11.2	11.5
	2012	13	4.5	4.5	16.1
	2013	21	7.3	7.3	23.4
	2014	13	4.5	4.5	28.0
	2015	4	1.4	1.4	29.4
	2016	42	14.7	14.7	44.1
	2017	27	9.4	9.4	53.5
	2018	10	3.5	3.5	57.0
	2019	9	3.1	3.1	60.1
	2020	12	4.2	4.2	64.3
	2021	43	15.0	15.0	79.4
	2022	30	10.5	10.5	89.9
	2023	11	3.8	3.8	93.7
	2024	13	4.5	4.5	98.3
	2025	5	1.7	1.7	100.0
	Total	286	100.0	100.0	

### Senatorial district of respondent

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Ondo North Senatorial District	84	29.4	29.4	29.4
	Ondo Central Senatorial District	95	33.2	33.2	62.6
	Ondo South Senatorial District	107	37.4	37.4	100.0
	Total	286	100.0	100.0	

Partial Corr

### Correlations

Control Variables			Planning & Needs Assessment
Number of dependents & STARTYR & Senatorial district of respondent	Planning & Needs Assessment	Correlation	1.000
		Significance (2-tailed)	.
		df	0
	Delivery & Distribution of Inputs	Correlation	.849
		Significance (2-tailed)	.000
		df	281
	Monitoring & Evaluation	Correlation	.943
		Significance (2-tailed)	.000
		df	281

### Correlations

Control Variables			Delivery & Distribution of Inputs
Number of dependents & STARTYR & Senatorial district of respondent	Planning & Needs Assessment	Correlation	.849
		Significance (2-tailed)	.000
		df	281
	Delivery & Distribution of Inputs	Correlation	1.000
		Significance (2-tailed)	.
		df	0
	Monitoring & Evaluation	Correlation	.900
		Significance (2-tailed)	.000
		df	281

### Correlations

Control Variables			Monitoring & Evaluation
Number of dependents & STARTYR & Senatorial district of respondent	Planning & Needs Assessment	Correlation	.943
		Significance (2-tailed)	.000
		df	281
	Delivery & Distribution of Inputs	Correlation	.900
		Significance (2-tailed)	.000
		df	281
	Monitoring & Evaluation	Correlation	1.000
		Significance (2-tailed)	.
		df	0

**Partial Corr**

**Correlations**

Control Variables			Planning & Needs Assessment	Delivery & Distribution of Inputs
Control variables	Planning & Needs Assessment	Correlation	1.000	.850
		Significance (2-tailed)	.	.000
		df	0	283
	Delivery & Distribution of Inputs	Correlation	.850	1.000
		Significance (2-tailed)	.000	.
		df	283	0
	Monitoring & Evaluation	Correlation	.943	.900
		Significance (2-tailed)	.000	.000
		df	283	283

### Correlations

Control Variables			Monitoring & Evaluation
Control variables	Planning & Needs Assessment	Correlation	.943
		Significance (2-tailed)	.000
		df	283
	Delivery & Distribution of Inputs	Correlation	.900
		Significance (2-tailed)	.000
		df	283
	Monitoring & Evaluation	Correlation	1.000
		Significance (2-tailed)	.
		df	0

### Partial Corr

### Correlations

Control Variables			Institutional Inefficiency	Financial Constraints
Control variables	Institutional Inefficiency	Correlation	1.000	.893
		Significance (2-tailed)	.	.000
		df	0	283
	Financial Constraints	Correlation	.893	1.000
		Significance (2-tailed)	.000	.
		df	283	0
	Logistical Inefficiency	Correlation	.850	.844
		Significance (2-tailed)	.000	.000
		df	283	283
	Governance & Political Interference	Correlation	.943	.904
		Significance (2-tailed)	.000	.000
		df	283	283

### Correlations

Control Variables			Logistical Inefficiency	Governance & Political Interference
Control variables	Institutional Inefficiency	Correlation	.850	.943
		Significance (2- tailed)	.000	.000
		df	283	283
	Financial Constraints	Correlation	.844	.904
		Significance (2- tailed)	.000	.000
		df	283	283
	Logistical Inefficiency	Correlation	1.000	.900
		Significance (2- tailed)	.	.000
		df	0	283
	Governance & Political Interference	Correlation	.900	1.000
		Significance (2- tailed)	.000	.
		df	283	0

**Partial Corr**

**Correlations**

Control Variables			Institutional Inefficiency
Number of dependents & STARTYR & Senatorial district of respondent	Institutional Inefficiency	Correlation	1.000
		Significance (2-tailed)	.
		df	0
	Financial Constraints	Correlation	.894
		Significance (2-tailed)	.000
		df	281
	Logistical Inefficiency	Correlation	.849
		Significance (2-tailed)	.000
		df	281
	Governance & Political Interference	Correlation	.943
		Significance (2-tailed)	.000
		df	281

## Correlations

Control Variables			Financial Constraints
Number of dependents & STARTYR & Senatorial district of respondent	Institutional Inefficiency	Correlation	.894
		Significance (2-tailed)	.000
		df	281
	Financial Constraints	Correlation	1.000
		Significance (2-tailed)	.
		df	0
	Logistical Inefficiency	Correlation	.845
		Significance (2-tailed)	.000
		df	281
	Governance & Political Interference	Correlation	.904
		Significance (2-tailed)	.000
		df	281

## Correlations

Control Variables			Logistical Inefficiency
Number of dependents & STARTYR & Senatorial district of respondent	Institutional Inefficiency	Correlation	.849
		Significance (2-tailed)	.000
		df	281
	Financial Constraints	Correlation	.845
		Significance (2-tailed)	.000
		df	281
	Logistical Inefficiency	Correlation	1.000
		Significance (2-tailed)	.
		df	0
Governance & Political Interference	Correlation	.900	
	Significance (2-tailed)	.000	
	df	281	

## Correlations

Control Variables			Governance & Political Interference
Number of dependents & STARTYR & Senatorial district of respondent	Institutional Inefficiency	Correlation	.943
		Significance (2-tailed)	.000
		df	281
	Financial Constraints	Correlation	.904
		Significance (2-tailed)	.000
		df	281
	Logistical Inefficiency	Correlation	.900
		Significance (2-tailed)	.000
		df	281
	Governance & Political Interference	Correlation	1.000
		Significance (2-tailed)	.
		df	0

### Partial Corr

## Notes

### Correlations

Control Variables			Quality of Training	Time Factor
Number of dependents & STARTYR & Senatorial district of respondent	Quality of Training	Correlation	1.000	.677
		Significance (2-tailed)	.	.000
		df	0	281
	Time Factor	Correlation	.677	1.000
		Significance (2-tailed)	.000	.
		df	281	0
	Security on Deliveries	Correlation	.882	.562
		Significance (2-tailed)	.000	.000
		df	281	281
	Climate Shocks	Correlation	.977	.700
		Significance (2-tailed)	.000	.000
		df	281	281

### Correlations

Control Variables		Security on Deliveries	
Number of dependents & STARTYR & Senatorial district of respondent	Quality of Training	Correlation	.882
		Significance (2-tailed)	.000
		df	281
	Time Factor	Correlation	.562
		Significance (2-tailed)	.000
		df	281
	Security on Deliveries	Correlation	1.000
		Significance (2-tailed)	.
		df	0
Climate Shocks	Correlation	.895	
	Significance (2-tailed)	.000	
	df	281	

## Correlations

Control Variables			Climate Shocks
Number of dependents & STARTYR & Senatorial district of respondent	Quality of Training	Correlation	.977
		Significance (2-tailed)	.000
		df	281
	Time Factor	Correlation	.700
		Significance (2-tailed)	.000
		df	281
	Security on Deliveries	Correlation	.895
		Significance (2-tailed)	.000
		df	281
Climate Shocks	Correlation	1.000	
	Significance (2-tailed)	.	
	df	0	

### Partial Corr

### Notes

Output Created		31-DEC-2025 11:50:46
Comments		
Input	Data	C:\Users\PC\Desktop\OLAJIDE_SCHEDULE\UNIBEN\Damilola Emmanuel ADEBOMI(Engr Oni)\ADEBOMI_To be Submitted\ADEBOMI_R results.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	286
	Missing Value Handling	Definition of Missing
	Cases Used	Statistics are based on cases with no missing data for any variable listed.

Syntax		PARTIAL CORR  /VARIABLES=QT TF SD CS BY Z  /SIGNIFICANCE=TWO TAIL  /MISSING=LISTWISE.
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.02

### Correlations

Control Variables			Quality of Training	Time Factor
Control variables	Quality of Training	Correlation	1.000	.677
		Significance (2-tailed)	.	.000
		df	0	283
	Time Factor	Correlation	.677	1.000
		Significance (2-tailed)	.000	.
		df	283	0
	Security on Deliveries	Correlation	.882	.563
		Significance (2-tailed)	.000	.000

	df	283	283
Climate Shocks	Correlation	.977	.700
	Significance (2-tailed)	.000	.000
	df	283	283

### Correlations

Control Variables			Security on Deliveries	Climate Shocks
Control variables	Quality of Training	Correlation	.882	.977
		Significance (2-tailed)	.000	.000
		df	283	283
Time Factor		Correlation	.563	.700
		Significance (2-tailed)	.000	.000
		df	283	283
Security on Deliveries		Correlation	1.000	.894
		Significance (2-tailed)	.	.000
		df	0	283
Climate Shocks		Correlation	.894	1.000
		Significance (2-tailed)	.000	.
		df	283	0

## Regression

**Table 5.5.1a Regression Analysis of effectiveness of procurement delivery on Food Security**

		<b>Coefficients<sup>a</sup></b>				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.208E-12	.000		.000	1.000
	Planning & Needs Assessment	1.000	.000	.017	3790777.825	.000
	Delivery & Distribution of Inputs	1.000	.000	.014	4169615.740	.000
	Monitoring & Evaluation	1.000	.000	.018	3344355.790	.000
	Number of dependents	1.000	.000	.025	16668806.045	.000
	STARTYR	1.000	.000	1.001	654514480.035	.000
	Senatorial district of respondent	1.000	.000	.008	5026638.643	.000

a. Dependent Variable: Food Security

Source: Author's Computation 2025

**Table 5.5.1b Regression Analysis of the Effectiveness of Procurement Delivery on Sustainable Agricultural Procurement**

		<b>Coefficients<sup>a</sup></b>				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	6.474	.951		6.809	.000
	Planning & Needs Assessment	-.019	.072	-.032	-.259	.796
	Delivery & Distribution of Inputs	.730	.065	1.068	11.205	.000

Monitoring & Evaluation	-.206	.081	-.383	-2.531	.012
Number of dependents	-.007	.016	-.019	-.443	.658
STARTYR	.000	.000	-.011	-.261	.795
Senatorial district of respondent	-.058	.054	-.045	-1.082	.280

a. Dependent Variable: Sustainable Agricultural Procurement

Source: Author's Computation 2025

**Table 5.5.1c Regression Analysis of the Effectiveness of Procurement Delivery on Improved Livelihood**

Model		Coefficients <sup>a</sup>				
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.316	.601		.526	.599
	Planning & Needs Assessment	.146	.045	.142	3.229	.001
	Delivery & Distribution of Inputs	.145	.041	.118	3.532	.000
	Monitoring & Evaluation	.703	.051	.727	13.702	.000
	Number of dependents	-.026	.010	-.037	-2.526	.012
	STARTYR	1.129E-5	.000	.001	.043	.966
	Senatorial district of respondent	-.035	.034	-.015	-1.021	.308

a. Dependent Variable: Improved Livelihood

Source: Author's Computation 2025

**Table 5.5.1d Regression Analysis of the Effectiveness of Procurement Delivery on Agricultural Productivity**

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Coefficients Beta		
1	(Constant)	2.907	.756		3.848	.000
	Planning & Needs Assessment	.140	.057	.172	2.460	.014
	Delivery & Distribution of Inputs	.359	.052	.370	6.937	.000
	Monitoring & Evaluation	.312	.065	.410	4.832	.000
	Number of dependents	.004	.013	.007	.294	.769
	STARTYR	.000	.000	-.023	-.991	.322
	Senatorial district of respondent	.011	.043	.006	.253	.800

a. Dependent Variable: Agricultural Productivity

## Model 2

### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Coefficients Beta		
1	(Constant)	6.125	.965		6.347	.000
	Institutional Inefficiency	-.059	.075	-.102	-.788	.431
	Financial Constraints	.138	.074	.191	1.857	.064
	Logistical Inefficiency	.709	.066	1.038	10.774	.000
	Governance & Political Interference	-.248	.084	-.462	-2.952	.003
	Number of dependents	-.010	.016	-.026	-.612	.541
	STARTYR	.000	.000	-.013	-.309	.757
	Senatorial district of respondent	-.061	.054	-.047	-1.133	.258

a. Dependent Variable: Sustainable Agricultural Procurement

## Model 3

### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Coefficients Beta		
1	(Constant)	.474	.559		.847	.398
	Quality of Training	-.049	.073	-.023	-.669	.504
	Time Factor	.037	.033	.012	1.137	.256
	Security on Deliveries	1.118	.029	.642	38.593	.000
	Climate Shocks	.866	.084	.391	10.338	.000
	Number of dependents	.002	.009	.002	.215	.830
	STARTYR	-3.820E-5	.000	-.001	-.168	.866
	Senatorial district of respondent	.009	.030	.002	.310	.757

a. Dependent Variable: APSi

**APPENDIX II**

**RESEARCH QUESTIONNAIRE**

**DATA GENERATION ON FARMER'S LIVELIHOOD UNDER THE FADAMA PROJECT**

**Dear Respondent,**

This questionnaire seeks information on farmers' livelihoods and the factors influencing their performance under the FADAMA project in Ondo State, Nigeria. Your responses will be treated confidentially and used strictly for academic purposes. Please answer all questions honestly.

**SECTION A: PERSONAL DATA**

Please tick (✓) the appropriate option or fill in where necessary.

1. **Sex:**

Male       Female

2. **Age Group:**

18–25     26–35     36–45     46–55     Above 55

3. **Educational Level:**

No formal education     Primary     Secondary     OND/NCE      
HND/Bachelor's     Postgraduate

4. **Marital Status:**

Single     Married     Widowed     Divorced

5. **Number of wives (if applicable):.....**

6. **Number of dependents:.....**

7. Size of farmland (in hectares):.....

8. Type of farming activity:.....

- Crop production     Livestock     Fishery     Agro-processing     Mixed farming

9. What year did you start farming?.....

10. Local Government Area: .....

**SECTION B: FACTORS INFLUENCING PERFORMANCE ON THE FADAMA PROJECT**

Please rate the following factors according to their influence on your performance in the FADAMA project.

Use the scale below:

Strongly Agree =5 , Agree = 4, Undecided = 3, Disagree = 2, Strongly Disagree = 1

<b>SECTION B: IMPLEMENTATION OF PROCUREMENT DELIVERY</b>						
<b>Planning and Needs Assessment</b>						
<b>S/NO</b>	<b>Items</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	The FADAMA project properly identified the actual input needs of farmers before commencing procurement.					
2	Farmers and community leaders were adequately involved in determining procurement priorities.					
3	Procurement planning under the FADAMA project was based on accurate data and realistic cost estimates.					
<b>Delivery and Distribution of Inputs</b>						

	<b>Items</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	Procured agricultural inputs and equipment were delivered to farmers on time.					
2	The distribution of inputs under the FADAMA project was fair and reached all intended beneficiaries.					
3	The quality and quantity of delivered inputs met farmers' expectations and project standards.					
<b>Monitoring and Evaluation</b>						
	<b>Items</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	The FADAMA project regularly monitored the delivery and utilization of procured inputs.					
2	There are effective feedback mechanisms for farmers to report issues about procurement delivery.					
3	Independent supervision and evaluation ensured transparency and accountability in procurement delivery.					
<b>SECTION C: SUSTAINABILITY AND WELFARE</b>						
<b>Food Security under FADAMA</b>						
	<b>Items</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	The implementation of the FADAMA project has helped reduce food shortages in my area.					
2	The project has contributed to improved access to affordable food among households.					

3	Food production levels have become more stable since the implementation of the FADAMA procurement system.					
<b>Sustainable Agricultural Procurement</b>						
	<b>Items</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	The FADAMA procurement process promotes long-term agricultural development in local communities.					
2	The procurement strategy encourages the use of environmentally sustainable inputs and technologies.					
3	The project ensures continuity of agricultural activities beyond the project's lifespan.					
<b>Improved Livelihood</b>						
	<b>Items</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	Larger projects require more complex procurement processes and longer approval timelines.					
2	The overall standard of living of farmers has improved following the project's implementation.					
3	The FADAMA procurement delivery has helped reduce unemployment among rural dwellers.					
<b>Agricultural Productivity</b>						
	<b>Items</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	The project has improved access to agricultural machinery and technology, enhancing productivity.					

2	The project has significantly contributed to increased crop yield and livestock production.					
3	Beneficiary farmers now have better market access for their produce due to FADAMA interventions					
<b>SECTION D: INSTITUTIONAL FACTORS</b>						
<b>Institutional Inefficiency</b>						
	<b>Items</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	The local FADAMA project offices lack sufficient skilled personnel to manage procurement effectively.					
2	Too much delay from government offices slows down the buying and supply of farm items.					
3	Procurement procedures are often delayed due to poor communication and weak administrative systems.					
<b>Financial Constraints</b>						
	<b>Items</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	Irregular release of funds affects the timely execution of procurement activities under the FADAMA project.					
2	Insufficient budget allocation limits the procurement of sustainable agricultural inputs..					
3	Rising input costs and inflation hinder the procurement of quality farming materials.					
<b>Logistical Inefficiency</b>						
	<b>Items</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

1	Poor road infrastructure delays the transportation and delivery of procured agricultural inputs.					
2	The FADAMA project lacks adequate vehicles and storage facilities for distributing farm inputs.					
3	Weak supply chain networks result in delayed or incomplete delivery of procured items to farmers.					
<b>Governance and Political Interference</b>						
	<b>Items</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	Political influence affects the fair selection of suppliers and contractors in the FADAMA project.					
2	Corruption and diversion of agricultural inputs reduce the effectiveness of procurement delivery.					
3	Changes in political leadership disrupt the continuity of FADAMA procurement activities.					
<b>SECTION E: FACTORS INFLUENCING PERFORMANCE ON THE FADAMA PROJECT</b>						
<b>Quality of Training</b>						
	<b>Items</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	The training provided to procurement officers enhances their understanding of sustainable agricultural practices.					
2	Regular capacity-building programs improve the efficiency of procurement processes in the agricultural sector.					
3	The quality of training received adequately equips staff to implement sustainability standards during procurement.					

<b>Time Factor</b>						
	<b>Items</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	Procurement activities are often delayed due to lengthy approval procedures.					
2	Timely procurement of agricultural inputs contributes significantly to improved farm productivity.					
3	The time taken to complete procurement processes affects the sustainability of agricultural production.					
<b>Security on Deliveries</b>						
	<b>Items</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	Goods and agricultural inputs are usually delivered safely without theft or damage.					
2	Adequate security measures are in place during the transportation of procured agricultural items					
3	The presence of security personnel improves confidence in agricultural delivery processes.					
<b>Climate Shocks</b>						
	<b>Items</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	Climate-related events (such as drought or floods) disrupt the timely delivery of agricultural supplies.					
2	Procurement plans adequately consider the impact of changing climate conditions.					
3	Unpredictable weather conditions increase the cost and risk of sustainable procurement.					

