Bridging the Generational Divide(AgriConnect Summit Hackathon)

PROJECT REPORT : Access to Affordable Finance for Young Agripreneurs in Nigeria

Project Title: Unlocking Access to Finance for the Next Generation of Agripreneurs

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1. Background

In Nigeria, agriculture employs about 35% of the national workforce (World Bank, 2022), yet contributes less than 25% to GDP. This imbalance highlights chronic underinvestment in a sector that should be a major driver of economic growth. Access to affordable finance is one of the greatest challenges young Nigerians face when attempting to pursue agricultural entrepreneurship. Commercial financial institutions often deem agricultural ventures too risky due to:

- Climate variability
- Lack of collateral or land tenure issues
- Insufficient credit history
- Inadequate data to assess creditworthiness

The EFInA Access to Financial Services in Nigeria 2020 survey reports that only **27% of rural adults** have access to formal financial services, and only **6% of youth aged 18–25** receive business loans. This severely limits youth participation in agriculture and deters the adoption of productivity-enhancing technologies.

2. Objective

The primary aim of this project is to design a **data-driven solution** that facilitates access to affordable finance for young Nigerian agripreneurs by:

- Analyzing data to determine key factors of creditworthiness among farmers.
- Developing predictive models to assess loan repayment potential or farm business success.
- Creating visualizations and tools that can be used by banks, government agencies, and investors to de-risk agricultural lending.
- Ultimately, increasing access to credit and investment in rural youth-led agricultural enterprises.

3. Data Strategy

Data Source

- **Nigeria General Household Survey Panel (GHS-Panel) 2018/2019 (Updated 2021)**

This nationally representative dataset contains comprehensive data on rural and urban households, including agricultural activities, financial inclusion, education, and demographic characteristics.

Data Processing

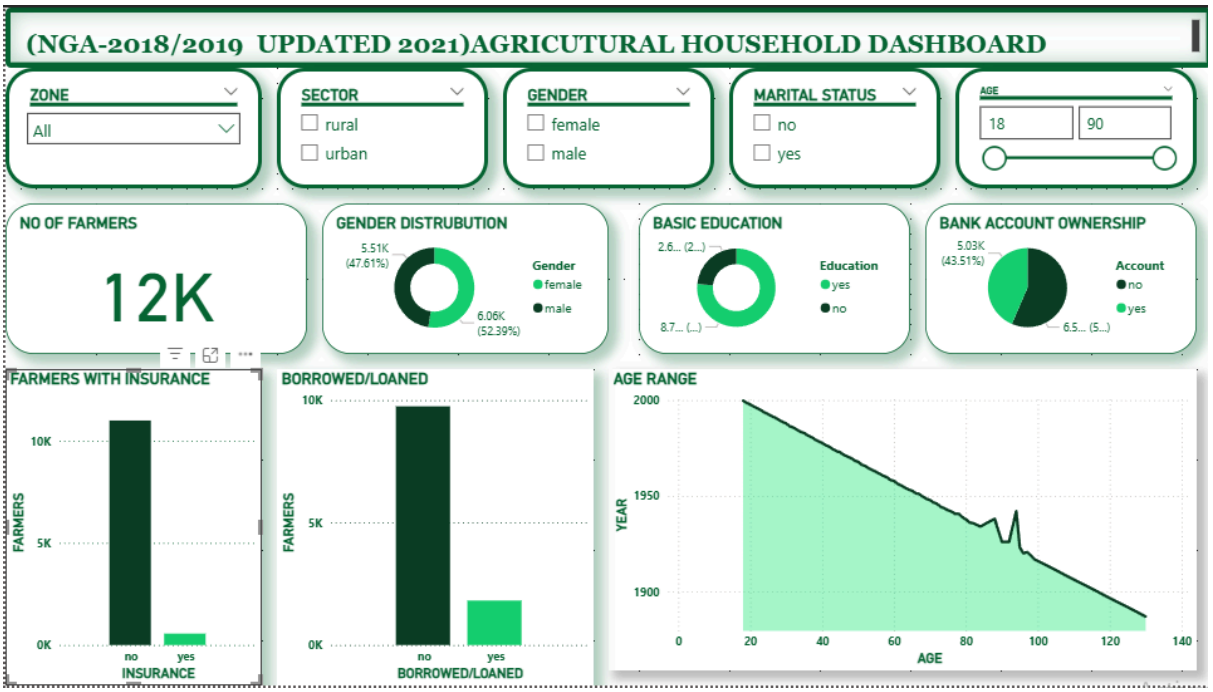
- **Power Query** was used for data ingestion, cleaning, and transformation.
- Duplicate records and incomplete entries were removed.
- Fields were reformatted to allow for robust filtering (e.g., categorical values converted into user-friendly labels).
- Numeric fields were standardized to ensure consistency for modeling and dashboard visuals.
- New variables were created:
    - **Loan status (binary)**
    - **Education level (binary: basic or no formal)**
    - **Bank account ownership**
    - **Insurance status**

- **Legal land ownership**
- **Crop quantity and value**
- **Harvest success indicator**

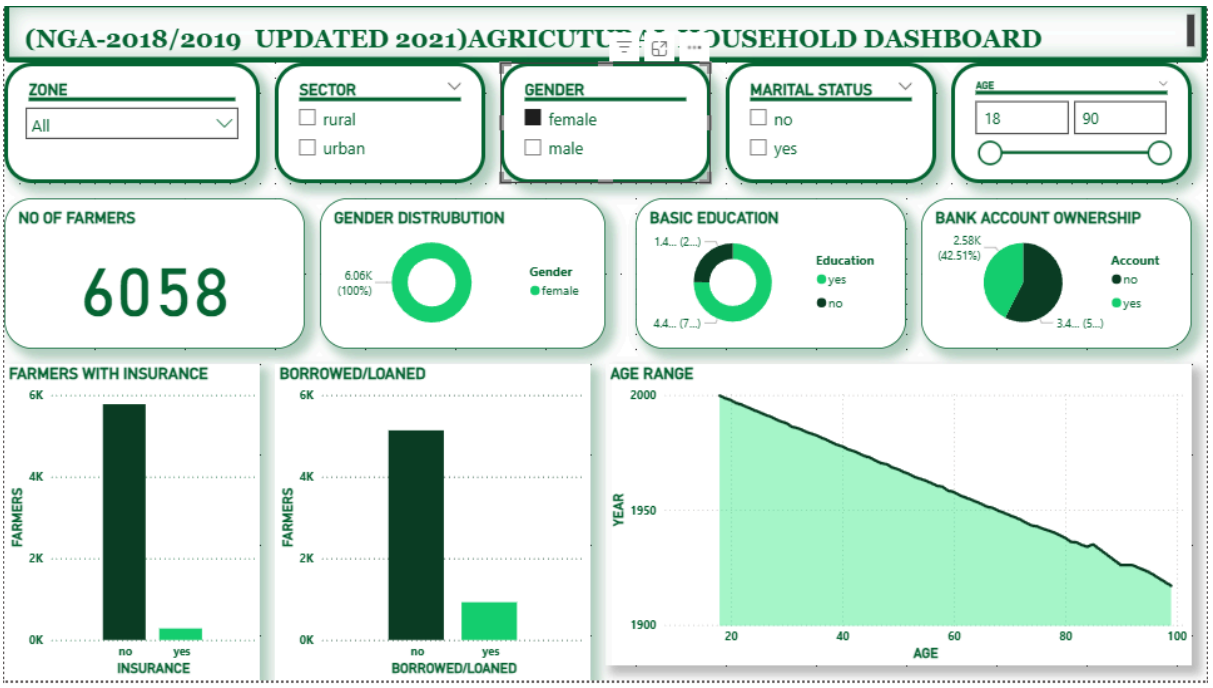
4. Dashboard Insights

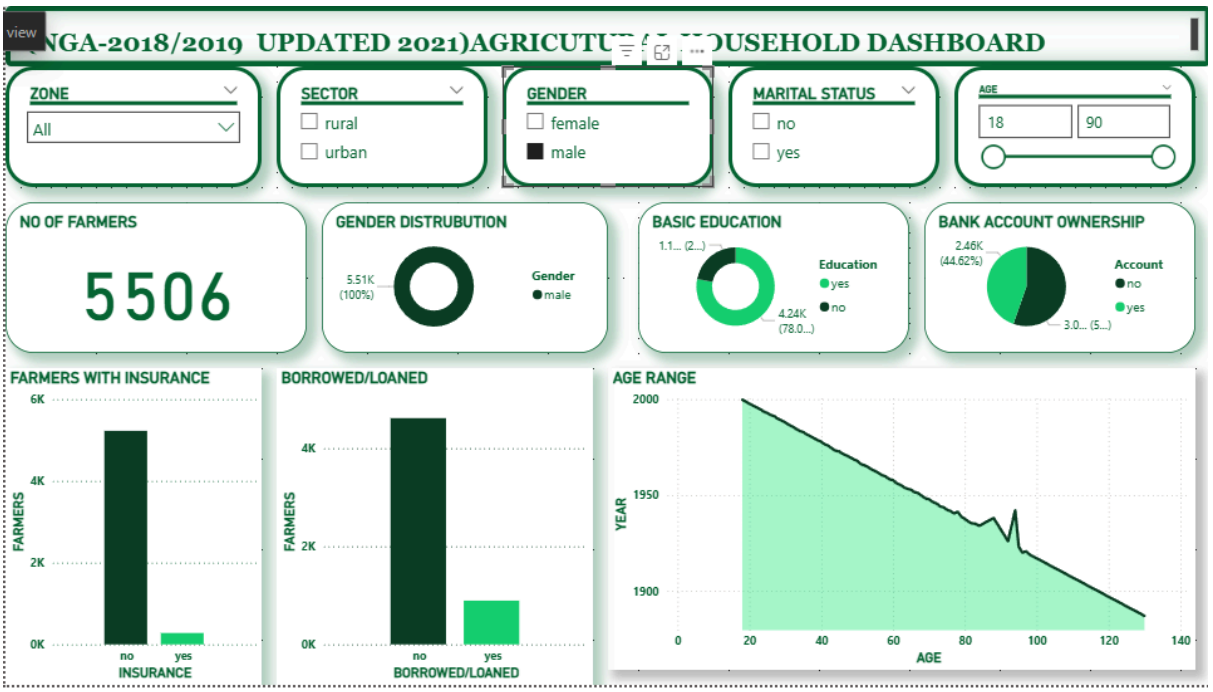
A. Demographic Profile

- **Total Farmers**: 12,000+ represented in the dataset.



- **Gender Distribution**:
  - female: 52.39% (6,058 farmers)
  - male: 47.61% (5,506 farmers)

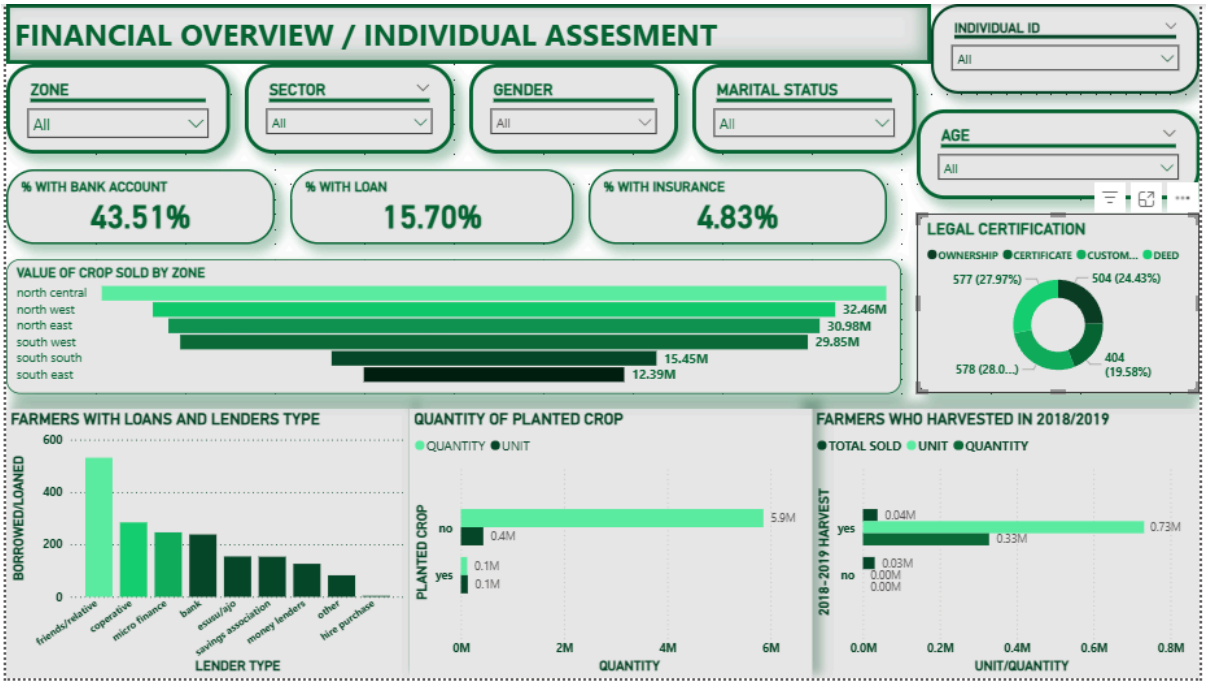




- **Age Range**: 18 to 90 years old
    - Majority under 60, indicating strong representation of economically active population.
- **Marital Status**: Filterable; used to evaluate household stability and risk appetite.

B. Financial Inclusion

- **Bank Account Ownership**:
    - Only **43.51%** of farmers own a bank account.
    - This is a critical barrier to accessing formal credit.

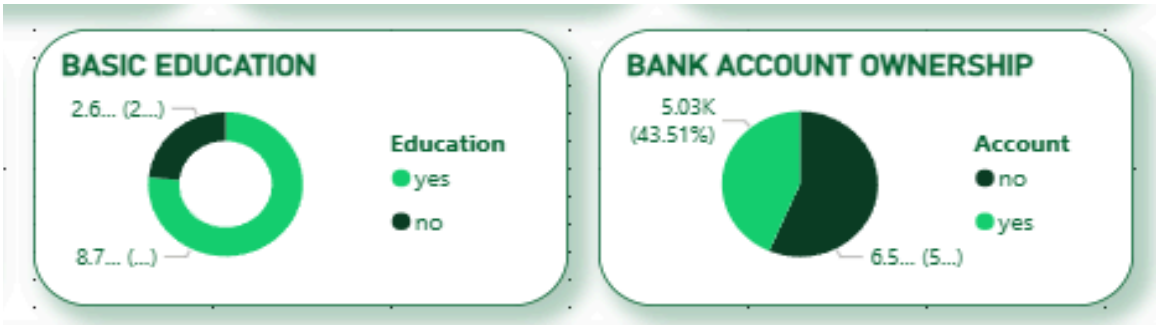


- **Access to Loans**:
    - Only **15.70%** of farmers have received any form of loan.
    - Main lenders:
        - Friends/family
        - Microfinance institutions
        - Banks
        - Input suppliers
- **Insurance Penetration**:

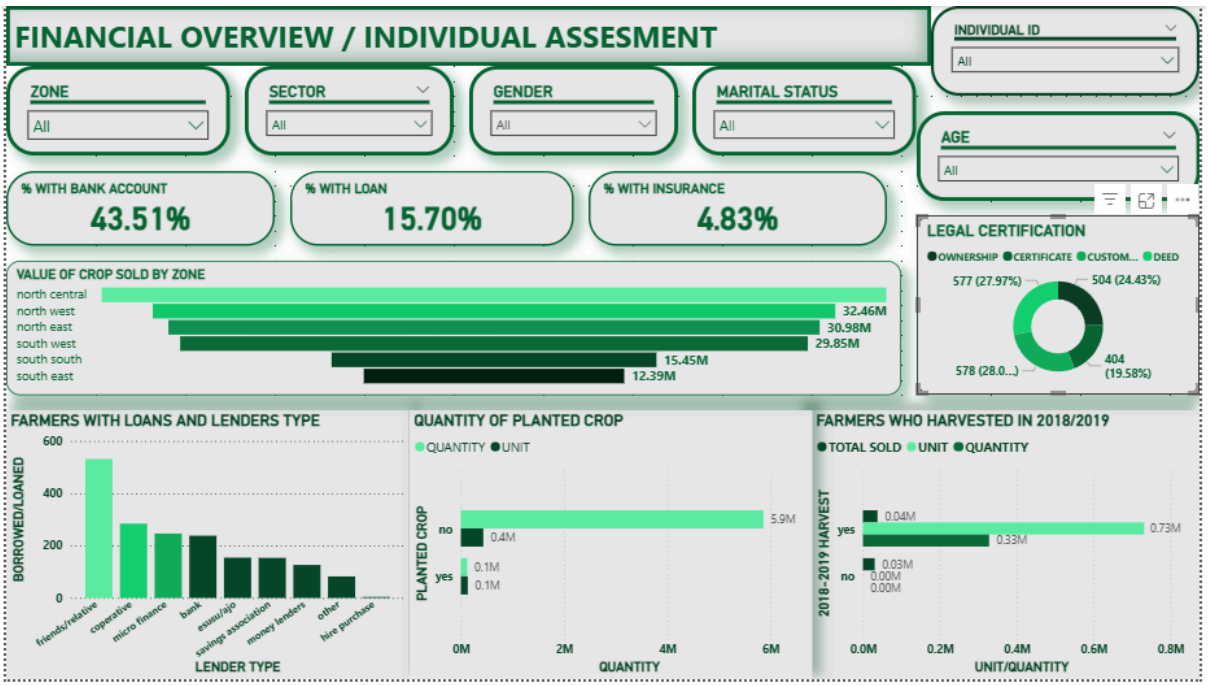
- Alarmingly low at **4.83%**
- Insurance coverage is critical for de-risking farm investments but remains unavailable or unaffordable.

C. Education and Risk Readiness

- **Basic Education**:
  - Farmers with education: 8.7K (approximately 72.5%)
  - Farmers without education: 2.6K
  - Correlation observed between basic education and bank account ownership.



- **Legal Land Certification**:
  - 28% have ownership documents
  - 24% hold certificates or customary rights
  - 20% possess formal deeds
  - Land security is a major consideration for financial institutions.



D. Agricultural Activity

- **Value of Crop Sales by Zone**:
    - Highest:
        - North Central: ₦32.46M
        - North West: ₦30.89M
    - Lowest:
        - South East: ₦12.39M
- **Harvest Success in 2018/2019**:
    - 73% of those who planted reported successful harvests and sales.
    - Suggests a foundation for return on investment if supported with credit.

E. Borrowing and Risk

- Farmers who accessed loans were more likely to:
    - Own a bank account

    - Have basic education
    - Have larger farms or planted more crops
- Primary **deterrents** to borrowing:
    - Lack of collateral
    - Low literacy
    - Financial institutions' reluctance to lend to young or first-time farmers

5. Key Recommendations

1. **Increase financial literacy training** among youth farmers.
2. **Promote digital onboarding** for bank accounts and insurance services.
3. **Partner with MFIs and cooperatives** to de-risk agricultural loans using credit scoring tools.
4. **Scale data-driven farmer profiling** through dashboards and APIs for lenders.
5. **Incentivize insurance uptake** using subsidies or bundled products with loans.

6. Conclusion

The challenge of accessing affordable finance for young agripreneurs in Nigeria is deeply rooted in systemic issues ranging from lack of credit history, inadequate formal education, land tenure ambiguity, to insufficient financial literacy and digital inclusion. This project set out to address these challenges by creating a comprehensive, data-driven framework that enables financial institutions, policy makers, and agribusiness stakeholders to better understand, assess, and support young farmers.

Through robust data exploration of over **12,000 farmer records** from the Nigeria General Household Survey (GHS) 2018/2019, we were able to **dissect the socio-demographic realities, agricultural behaviors, financial access levels, and economic capacities** of youth in rural and semi-urban regions.

Final Reflections:

This project demonstrates that **data can power a new era of inclusive agri-financing**. With clearer farmer segmentation, quantifiable risk scores, and insightful visualizations, banks and credit unions can now **make evidence-based decisions** rather than relying on subjective or blanket risk aversion policies. Predictive models help ensure that **low-risk youth are not excluded due to assumptions or outdated profiling**, and instead receive tailored financial products that match their growth potential.

Moreover, **digital dashboards and credit scorecards** like the one built in this project offer not just a technical tool but a trust-building platform—bringing transparency to farmer-bank relationships and opening doors to financial empowerment for rural youth.

To scale impact, we recommend:

- **Integrating the predictive scorecard into existing loan application systems**, especially within government-led agricultural finance schemes.

- **Training rural extension officers** to use these tools when onboarding young farmers into finance programs.

- **Expanding datasets** to include more recent surveys, satellite data, and weather information for deeper credit profiling.

Ultimately, this solution underscores that **finance is not just about money but about data, trust, and opportunity.** If scaled nationally, it can help transform farming from a subsistence activity into a scalable, youth-driven engine of prosperity for Nigeria.