

Profitability of Agricultural Fabrication in Oyo State, Nigeria

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Introduction

Agricultural mechanization has been identified as a crucial factor in increasing efficiency, agricultural productivity, and reducing labour burdens (Lewis et al., 2022). However, poor access to modern farm equipment is a constraint that limits agricultural potential and achieving food sufficiency (Ntagu et al., 2022). Furthermore, manufacturers and fabricators responsible for producing local farming equipment face numerous constraints that hinder them from maintaining profitability and producing high-quality equipment that meets the needs of smallholder farmers. Some constraints include high raw material costs, erratic power supply, inefficient automation, and a lack of technical know-how.

Consequently, by understanding the factors influencing the profitability of agricultural equipment fabricators, policymakers and stakeholders can develop targeted interventions to address the fundamental issues. This will facilitate establishing an enabling environment required by the fabricators to boost food and agricultural productivity. Nigeria has long depended on imported farm equipment to the detriment of locally fabricated ones. Efforts must be geared towards supporting local fabricators and enhancing their capacity to fill the gap of locally adaptable agricultural implements in the Nigerian agricultural space.

Highlights

1. Over half (55%) of fabricators produce processing equipment, while mechanized tools and essential household equipment are significantly underproduced due to high costs and low demand.
2. Most fabricators (83.8%) lack access to intervention programs and training, resulting in poor technical skills and reduced production quality.
3. Nearly half (43.8%) of fabricators cannot access credit, with high interest rates and collateral requirements being major barriers.
4. Agricultural equipment fabrication is highly profitable, with a return on investment (ROI) of ₦3.68 for every ₦1 invested.

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Study Approach

This policy research was carried out in Oyo State, Nigeria. Following the Oyo State Agricultural Development Authority (OYSADA) stratification of the 33 Local Government Areas (LGAs) into 7 zones, 21 LGAs were purposively selected from the 7 zones. A snowball sampling technique generated a list of 128 fabricators from the 21 selected LGAs. Structured questionnaires were administered to the fabricators, resulting in 48 responses. Descriptive statistics and gross margin analysis were employed to achieve the study's objectives.

What is at stake?

Production and processing equipment

Figure 1 reveals that over half (55%) of the agricultural equipment fabricators produced processing equipment such as graters, grinders, shellers, fryers, mixers, expellers, dehulling and dehusking machines. Only 28% of fabricators produce equipment such as battery cages, feeding troughs, hoes, cutlass, storage bins, and watering cans. The fabricators rarely produce mechanized tools such as ploughs, seeders, harvesters, and other essential farm machinery. The high equipment cost and low end-user demand explain this shortfall in producing mechanized tools. Furthermore, fewer fabricators (17%) focus on household equipment. Essential tools that could improve the quality of life, such as efficient cooking stoves, water pumps, and food processing units, are not extensively fabricated, thus creating a gap in the supply of locally produced household equipment.

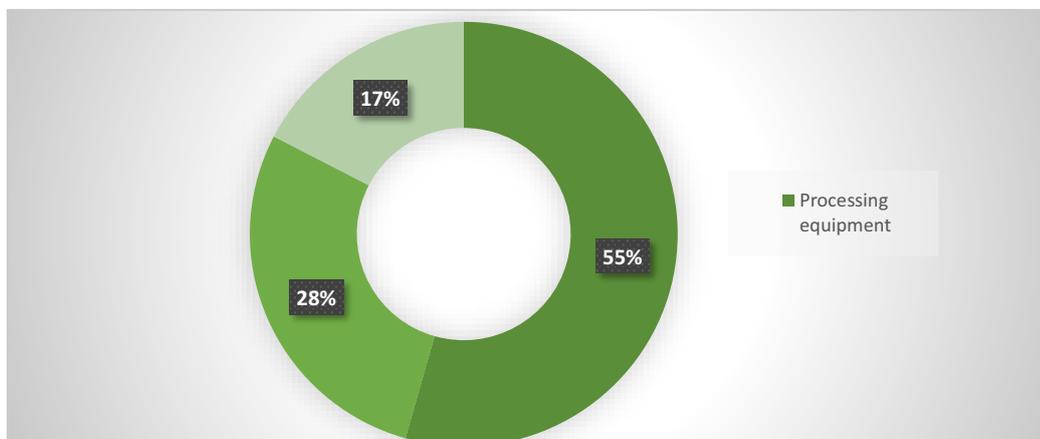


Figure 1: Types of equipment produced by fabricators

Source: Field Survey, 2022

Access to training and intervention programmes

Figure 2 shows that most fabricators (83.8%) reported not benefiting from intervention programmes, suggesting they were either poorly communicated or irrelevant to their needs. About 70.8% of them did not benefit from training programmes, which indicates a gap in capacity building and contributes to low technical skills. This gap can lead to inefficiencies in production, lower-quality outputs, and a lack of innovation. Consequently, the production of substandard machinery and equipment affects the competitiveness of these fabricators in both local and international markets. Additionally, 57.8% of agricultural fabricators reported poor accessibility to support services and credit. The lack of access to credit support services contributes to poor skill sets, the production of substandard equipment, and the inability to scale production among fabricators.

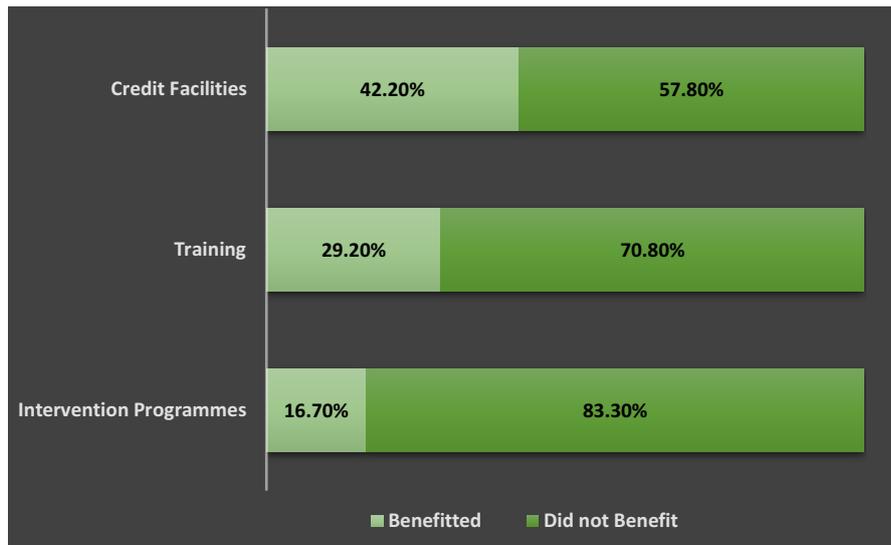


Figure 2: Access to support programmes and services by fabricators

Source: Field Survey, 2022

Access to credit

Nearly half of the fabricators who accessed credit facilities (45.80%) indicated that they obtained it from formal sources, while 10.40% relied on informal sources (Figure 3). That nearly half of the fabricators are accessing formal credit suggests some level of trust and engagement with formal financial institutions. Informal credit is often insufficient to cover the substantial investments required for manufacturing agricultural machinery and equipment. More than half of them (43.80%) do not access any credit. This may be due to barriers such as high interest rates, stringent collateral requirements, or complicated application processes that prevent them from securing the necessary funds.

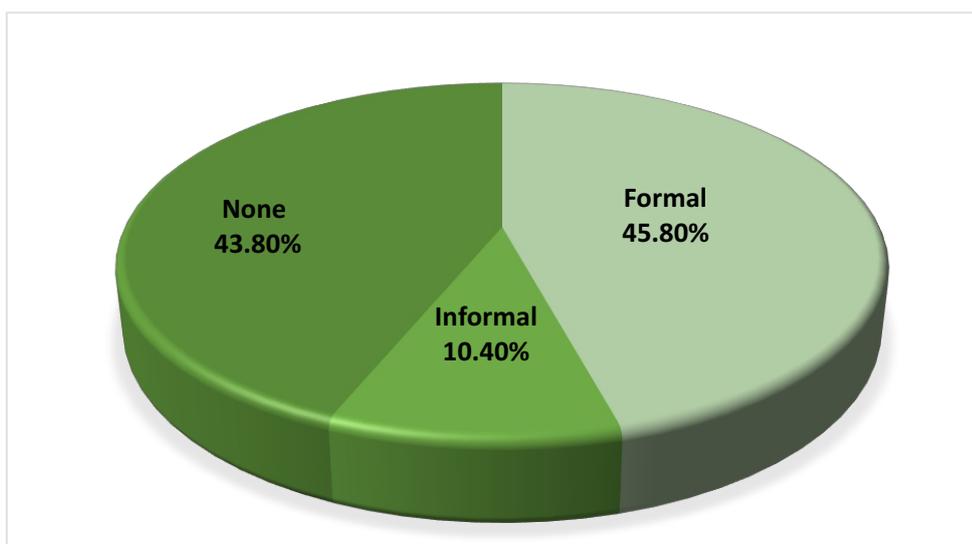


Figure 3: Access to credit facilities

Source: Field Survey, 2022

Constraints to credit access

High interest rates by lending institutions were identified as the most significant constraint (76.90%) for fabricators in accessing credit, as shown in Figure 4. This indicates that the cost of borrowing is prohibitively high, making it difficult for fabricators to finance their operations or invest in new equipment and technologies. Additionally, 11.50% of fabricators cited collateral requirements as a significant obstacle. This suggests that many fabricators lack the necessary assets to secure loans, limiting their ability to access much-needed capital. A smaller percentage (7.70%) reported that a short moratorium period is a significant barrier. A short moratorium period means that borrowers have limited time before repaying the loan, which can be difficult for fabricators who need time to generate revenue from their investments. Lastly, 3.90% of fabricators mentioned stringent bureaucratic processes as a constraint. Although this is the least cited issue, it still represents a barrier to accessing credit. Lengthy and complex application procedures can deter fabricators from seeking loans, especially if the process is perceived as cumbersome.

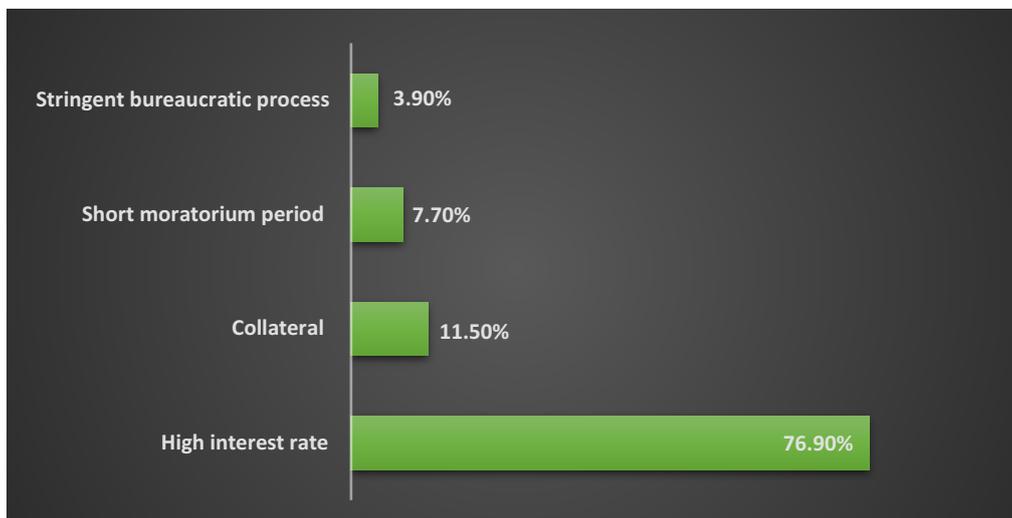


Figure 4: Constraints faced in accessing credits

Source: Field Survey, 2022

Why should policymakers consider the agricultural fabrication enterprise?

A comprehensive gross margin analysis was conducted. The profit analysis revealed that the total revenue of fabricators (₦95,502,900) exceeded the total cost (₦20,374,205) incurred. The calculated profitability of the fabricators was ₦74,928,695, thus underscoring the lucrative nature of the agricultural fabrication enterprise. Specifically, the result enunciated that for every ₦1 invested in agricultural fabrication, a substantial return on investment (ROI) of ₦3.68 was realized, emphasizing the viability of the enterprise, substantiating its pivotal role in fostering long-term economic development. As policymakers consider strategies to promote economic growth, it is imperative to recognize and support the continued expansion of the agricultural fabrication industry.

Conclusion

Unlocking the potential of agricultural fabricators in Nigeria requires a comprehensive and collaborative effort of policymakers, key stakeholders like financial institutions and the equipment fabricators. This will create an enabling environment that fosters innovation, enhances competitiveness and empowers fabricators to play a significant role in driving sustainable agricultural transformation. Through these collaborative efforts, the full potential of agricultural fabricators in Nigeria can be harnessed, leading to sustainable growth, increased productivity and improved livelihoods.

Policy Recommendations

- Fabricators should be coordinated into an organized group(s) to enhance business and financial management training and easy access to support from the government and other relevant agencies like commercial banks.
- The bureaucratic process and bottlenecks synonymous with registering business names should be addressed and made hitch-free by CAC to enhance the ease of fabricators registering their business names.
- Given the viability of the fabrication enterprises, the government should collaborate with financial institutions in providing soft loans (low interest rates and long amortization period) to the fabricators, especially those registered with CAC.

References

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The contents of this research note are the authors' responsibility and reflect the research findings.