



## **Sustainable Micro-Finance for Small-scale Rice Processors in the Rural Region of Igbemo-Ekiti, Nigeria**

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### **Abstract**

Small –scale food processing structure in developing countries has become a critical issue, now that many find it difficult to sustain food production. This study, therefore, reports the small-scale rice processing situation in Igbemo-Ekiti, Nigeria vis-à-vis the investors' capabilities. Seventy two (72) processors were interviewed in twenty one (21) residential quarters of the town. Using the Pearson's Correlation test of processor's variables, findings reveal strong relationship between processor's income, mode of operation, processing activities, expenditure, and institutional assistance. Policy measures are advanced based on research findings.

**Keywords:** Rice, Micro-finance, Small-scale, Rural region, Rice Processor, Igbemo-Ekiti.

### **Introduction**

The rising global food prices, according to FAO, will remain for the next 10 years (Makinde, 2008). This alarm calls for a renewed focus on food policy adjustment in the developing nations (particularly Nigeria) that are import dependent. There is no doubt that rice is the most important food product worldwide "in which Nigeria ranks third (after Philippines and China) among major rice importing countries" (Awe, 2006). It is the largest rice importer in

sub-Saharan Africa (Bruntrup, 2006) and the most populous country (with over 140 million population) in Africa where about one quarter of the continent's total population live (NISER, 2002) with high demand for rice.

Today, less than half of the rice consumed in sub-Saharan Africa is supplied locally. Senegal, for instance, is the second largest rice importer in this region. "In Uganda, about 50 percent of rice consumed is imported, amounting to \$60 million yearly. Kenya imports nearly 86 percent of her rice (Abubakar *et al.*, 2008). Nigeria produces 2million tones and consumes about 5 million tones, thereby, spending \$800million on importation annually (Awe, 2006). Since the mid-1970s, rice consumption in Nigeria, has risen tremendously (10.3% and above per annum) as a result of accelerating population growth rate (+2.8% per annum) and increasing per capital consumption (+7.3% per annum) due to changing consumers' preferences (Akpokodje *et al.*, 2001). The country, no doubt, has witnessed expansion in production (+9.3% per annum), as a result of vast increase in land area (+7.9% per annum) put under cultivation (NISER, 2002). The contributory factors to the rising consumption rate include: rapid urbanization, ease of preparation that fits easily into urban lifestyle of workers, its general availability among food vendors and restaurants located in work places in urban areas (NISER, 2002).

Nigerian government decided to ban rice importation and double her output to become self- sufficient in rice in 2004. It targeted 6 million tones of rice by 2005, with an arrangement of partnership with states on zonal basis to increase the production of paddy and encourage private sector participation in processing (Chukwunwike, 2004). Following the recent global hike in rice price occasioned by the promotion of bio-fuel, "the Federal Government released ₦18m (\$150,000) to establish small and medium rice processing industries in the rice producing communities of the country, to put end to rice importation (Oguntola, 2008) and raise domestic output.

Ekiti State is one of the regions in the country where rice production is assuming great importance among majority of the farmers (NISER, 2002). Of all

major rice producing towns (Igbemo, Ikole and Ijero) in the state, Igbemo enjoys national reputation for producing peculiarly tasty local rice, thereby, controlling a relatively larger market area. This development makes small-scale processing activities dominant in the town. In this study, therefore, the rice processors in Igbemo, are the target population with the intention of enhancing their production efficiency through micro-finance. The specific objectives of study are to: (i) identify the various rice processing activities in the town, (ii) examine the investment structure of processors and (iii) promote financing as well as profitability of the business.

## 2.0 Literature Search

The Nigerian banking industry regards a small-scale business as one with the following characteristics namely; (i) 100% fully-owned by Nigerians, (ii) a limited liability company with share capital not more than ₦50,000 (\$416.67), and (iii) a labour force not more than thirty (Bello, 1998, Akinsanya, 1991). It can also be an industry with an expenditure not exceeding ₦250,000 or \$2,083.3, including working capital but excluding land (Akinsanya, 1991).

Rural communities like urban districts support a number of small-scale businesses: small retail outlets, restaurants, joineries, potteries, weaving, farming, food processing, etc, which form an integral and necessary part of the rural economy. Dias (1990) believes that small enterprises in rural areas usually have close ties with the agricultural sector; food processing and furniture in particular, which rely heavily on local raw materials. In view of the fact that over 70 percent of Nigerian poor live in rural areas, poverty reduction strategies remain visible options to raise their efficiency and productivity which will consequently increase their income (Daramola, 2004).

Okere (2009) tasks Nigerian Government to provide fund for the growth of small and medium scale enterprises (SMEs) through the microfinance banks in the country so that the nation's economy can grow and develop. The small-scale enterprises in Nigeria are mostly characterized by informal mode of operations;

labour-intensive techniques, low-income families, private and indigenous ownership (Olanrewaju, 1999). In the rural areas, commercial banks hardly provide financial service for this sector in terms of access to savings, loans, transfer of funds and insurance which represent major barriers to development (Ellsasser, 2006).

Statistics by an International Non-Governmental Organization (Oxford of Great Britain) reveals that Nigeria spends an average of \$3billion yearly on the importation of foods (Anuforo, 2009). It is now obvious that government direct involvement in production may not yield the required result if the small-scale processors who buy rice from the farmers are incapacitated financially (Okere, 2009). The processors, no doubt, require microfinance to restructure their enterprises financing and offset their business risks. However, the hope that Micro-Finance Institutions (MFIs) would expand into rural areas following their successes in the cities has only been partially fulfilled (Giehler, 2006). The MFIs are hesitant to settle in rural area, because, the population density is too low, thereby increasing transaction costs which is too high to permit establishing a regular branch office (Wilcke, 2006).

The UN International Donor Communities (IDCs) consider micro-finance as one of the most effective instrument in combating poverty. Micro-finance includes micro-credit, saving services for poorer people, payment transactions and remittances and limited insurance services (Giehler, 2006). Millions of rural micro-finance customers have proved that poor people are credit worthy and are also willing to pay the full price for high-quality financial services (Ellsasser, 2006). As they gain access to financial services such as a savings, loans, payment transactions and insurance, they can independently and sustainably improve their own living conditions (Wilcke, 2006).

### **3.0 Materials and Method**

#### **3.1 Research locale**

The research was conducted in Igbemo, Ekiti State Nigeria. It is a rural community and a major rice producing town in the South-western part of the country that locates between longitude 5° 23' and 5° 24' East of the Greenwich Meridian and Latitude 7° 41' and 7° 42' North of the equator. It lies within an upland zone; rising over 250 metres above sea level. The town is mainly populated by the Yorubas. Politically, it situates within Irepodun–Ifelodun Local Government Area (LGA), and Ekiti Central Senatorial District of Ekiti State. The breakdown of the 2006 population census is yet not available. However, the 1991 census ranked Igbemo third (with a population of 15,739) of the eleven (11) major settlements in the LGA after Igede (24,607) and Iyin (25,931). A record of the Population Compendium (2005) also puts Igbemo in the third position (23,024) after Igede (35,996) and Iyin (37,931) out of total population of 161,286 for the entire LGA.

#### **3.2 Database Description**

The research took a census of the seventy two (72) rice processors in the twenty one (21) residential quarters which tally with the Independent National Electoral Commission (INEC) political wards in the town. The wards constitute well-defined Data Delineation Areas (DDAs) where empirical data were collected using questionnaires. In each ward, an identified processor, of age 18 and above was interviewed. Total survey was preferred because the respondents were few. The variables that were employed in the analysis are: income of the processors (INCOME), the type of processing activities carried out (ACTIVITY), and the number of workers engaged in processing (WORKER), the mode of processing (MODE), the expenditure on processing (EXPDT) and the institutional assistance enjoyed (ASSIST). These variables have been selected because they determine the processor's expenditure and are likely to impact the expansion of rice production in Igbemo.

#### 4.0 Presentation and Discussion of Empirical Findings

Out of the 72 rice processors within Igbemo, 62 (86.1%) were parboilers who double as dryers, while 10 (13.9%) were millers. Research analysis focused on these two groups being the targeted population (small-scale rice processors). The data generated were subjected to different statistical analysis using descriptive statistics such as frequency counts and percentage as well as correlation test. The correlation test considers possible relationship between the variables to observe the financing structure that characterize rice processing in the town.

#### 4.1 Definition of Research Variables

S/N	Variable code	Definition of variable	Measurement scale	Frequency	%	Mean
1	INCOME	Annual Income	1. < N50,000 2. ₦50,001-60,000 3. 60,001-70,000` 4. N70,001-80,000 5. > N80,000 <b>TOTAL</b>	2 3 9 26 32 <b>72</b>	2.8 4.2 12.5 36.1 44.4 <b>100.0</b>	<b>4.15</b>
2.	ACTIVITY	Type of processing activity carried out	1. Parboiling/Drying 2. Milling <b>TOTAL</b>	62 10 <b>72</b>	86.1 13.9 <b>100.0</b>	<b>1.14</b>
3.	WORKER	Number of workers engage in processing	1. None 2. 1 – 2 Labourers 3. 3 – 4 labourers 4 > 5 labourers <b>TOTAL</b>	21 18 31 2 <b>72</b>	29.2 25.0 43.1 2.8 <b>100.0</b>	<b>2.19</b>
4.	MODE	Mode of Operation	1. Manual 2. Mechanical <b>TOTAL</b>	62 10 <b>72</b>	86.1 13.9 <b>100.0</b>	<b>1.14</b>
5.	EXPDT.	Annual Expenditure on processing	1. < N12,000 2. N12,000 3. N24,000	6 7 20	8.3 9.7 27.8	

6.	ASSIST	Assistance by Institution(s)	4. N36,000	19	27.8	3.54
			5. > N36,000	19	26.4	
			<b>TOTAL</b>	<b>72</b>	<b>100.0</b>	
			1. Yes	2	2.8	
			2. None	70	97.2	
		<b>TOTAL</b>	<b>72</b>	<b>100.0</b>	<b>1.98</b>	

Source: Authors Findings, 2012.

## 4.2 Bivariate Analysis of Processors Variables

The investment structure of the processors can be assessed through field observation. This is also possible using the frequency distribution of processors' variables on their operational finance. The logic in the cross-tabulation of the specific variables is that, the processing activities require basic inputs (capital, materials, labourers and institutional assistance) which satisfy production financing.

**Table 1: Correlation Matrix of Processor's Variables**

Variable Code	INCOME	ACTIVITY	WORKER	MODE	EXPDT	ASSIST
INCOME	1.000	-0.148	-0.008	0.212*	0.493**	-0.142
ACTIVITY		1.000	-0.422**	0.125	0.008	0.082
WORKER			1.000	-0.129	0.164	0.086
MODE				1.000	0.348**	-0.309**
EXPDT					1.000	-0.197
ASSIST						1.00

\* Correlation is significant at 0.05 level ( $P < 0.05$ )

\*\* Correlation is significant at 0.01 level ( $P < 0.01$ )

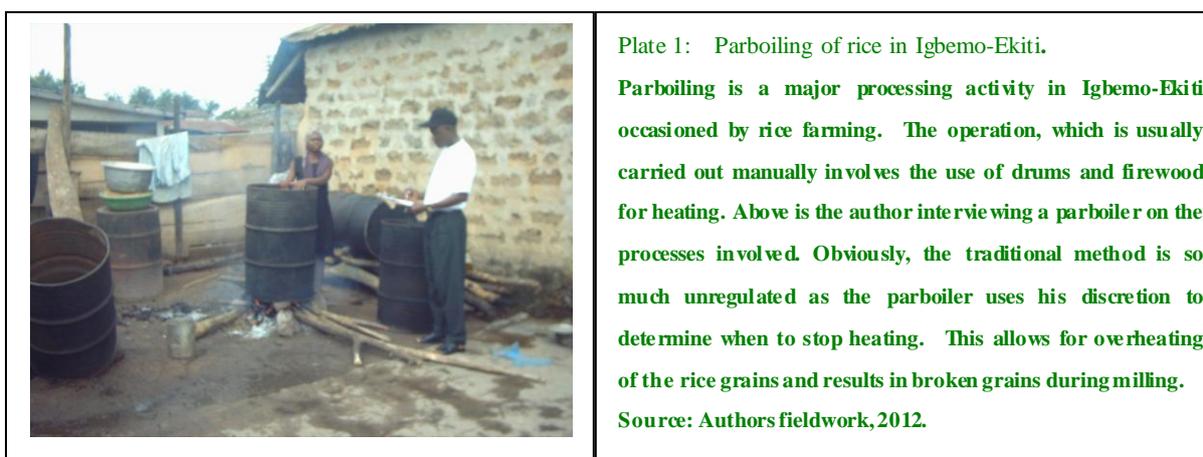
Source: Author's fieldwork, 2012.

Analysis on table 1 reveals that income of the processor (INCOME) has a significant relationship with the mode of operation (MODE). The fact is that,

the mode of operation of 86.1% of the processors is manual. These are the parboilers and dryers who do not make use of any form of machine. Only 13.9% operate mechanically in small milling units with the old conodisc technology and maximum production capacity of about 150 – 200 tonnes per day. In absolute terms, this is exceedingly low compared to “the 600 tonnes in Abakaliki, Ebonyi state and Lafia in Nasarawa state, Nigeria” (NISER, 2002). Given that the average (4.15) processor earns less than ₦80,000 (\$666.67) is a clear indication that majority are incapacitated by fund in operation.

The above is corroborated by the strong association between INCOME and annual expenditure (EXPDT) of the processor. As expected, lack of adequate capital will disallow the processor to meet the necessary expenditure in this sector. These include procurement of machines and paddy, employment of labourers and maintenance operations. The vicious circle of poverty among these processors has led to the unimpressive performance of this sector as the output capacity which varies seasonally or yearly is reflected in the quantity of food made available for consumption. However, “the poor have the ability to improve given enabling environment” (Olanrewaju, 2004).

The type of activity of the processor (ACTIVITY) indicates a significant correlation with the engagement of labourers (WORKER). Already, 86.1% of the



processing activities are in the hands of parboilers and dryers in which 59.7% are females. Unfortunately, this particular sex remains the poorest class of rural dwellers (Makinwa-Adebusoye, 1991). Virtually all of them (97.2%) operate

within self compound where family members (70.9%) are engaged in operation. As noted by Ashford (2001), women in the poorest household have the highest fertility. In Igbemo, the prevailing household sizes are 5 – 8 (54.2%) and 9 – 12 (36.1%). This explains the high engagement of children in processing, which is a visible evidence of poverty in developing countries (Abugre and Holland, 1998).

Major problem facing the processor is technology in processing. Consequently, MODE appears highly significant to EXPDT. The dominance of manual operation as well as parboiling/drying activities had earlier been observed. The milling operations are also of low scale. Normally, the smaller the scale of production, the lesser the probability, that the processor buys paddy sufficiently from the open market. In view of the fact that these processors are of low income, there is considerable reliance on self harvest (43.21%) which indirectly affects productivity. The local technology, apart from being crude and outmoded, it is grossly inefficient, time consuming and expensive.

The association of MODE with institutional assistance (ASSIST), indeed, calls for appropriate policy intervention. Almost all (95.8%) the processors lack formal training, the reason why the processing techniques in the town are overwhelmingly traditional (86.1%). Experience from literature reveals that, effective operations depend on acceptance of modern technology, good management, technical, professional and entrepreneurial skills- all which radiate round ASSIST. Rural areas really need microfinance for agricultural purposes and to set up small and medium sized businesses (Wilcke, 2006) that would change the process of economic development and ensure improved quality of life for the people.

## **5.0 Policy Recommendations**

The situation of the poor countries with small –scale processing structure is very critical, now that they cannot satisfy the food security policies. The failure of this sector in Nigeria could be anchored on certain factors which must be urgently addressed to combat hunger, unemployment, poverty and unfair

framework conditions of food trade.

Rice processing activities, undoubtedly offer development opportunities for Igbemo as a regional agropole. But data analysis shows that,

- i. Income is significant to the mode of operation of processor and expenditure on processing.
- ii. Type of processing activity carried out; depends on labour requirement in operation.
- iii. Mode of operation of processor is highly associated with the level of expenditure on processing and institutional support.

The operational expenses of the processor are minimal because, of the low capital base. On this note, the organization of Co-operative Societies (CSs) by the processors is advocated to allow their easy access to loans in micro-financing banks, government and International donor agencies' poverty –alleviation programmes, thereby, restructuring their enterprises financing. In the CSs, arrangement of 'Competitive Fund' (CF) can emerge. This financial involvement option sets in place committees who decide on specific programmes in the trade with cost-sharing models based on individual contributions to the chosen project under a control mechanism.

A renewed focus on technological development, particularly mechanical operation, is recommended to facilitate processing and reduce labour engagement. In this case, government should make available modern equipments and machineries for use by these rice processors in Igbemo. These include; steeping tanks for boiling and soaking, autoclaves for drying, dehusking for winnowing and mobile milling machines at subsidized service charges to minimize processing costs. For sustainability, Ekiti State government should collaborate with Research Institutes (e.g Federal Universities of Technology, Agricultural Mechanization Institute in Ilorin, private fabricators etc) to fabricate the processing plants locally with some imported components for possession by the CS under a "Tool-Acquirement Micro-soft Loan" (TAML) arrangement.

Now that the emphasis of government has shifted to rice processing industries in the rice producing areas of the country, it is essential that Rural Industrial Banks (RIBs) are initiated to complement this effort and meet the financial needs of the small-scale processors in Igbemo among other agropoles. Once the environment is free from any financial barrier, the huge potential of Igbemo rice will attract other institutional supports like the case of Ofada rice in Ogun State. The Department for Industrial Development (DFID) and notable marketing companies will show interest in production with modern milling facilities that can process the rice into other vital food items such as rice flour, cake, noodles, wine etc. These can be packaged into sachets and boxes with uniqueness of aromatic flavours for exportation. The suggested policies, however, represent reform measures than can ensure effective financing of small-scale processing enterprises in Igbemo for food security in Nigeria.

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