

## Evaluation of the Processing Technologies of Cassava Chips and Flour in Oyo and Ogun States of Nigeria

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**Abstract:** A survey was conducted between January and August in the year to evaluate the processing technologies of cassava chips and flour in Oyo and Ogun States. About (37.5%) obtain their raw materials from their own farms and farm gate while 62.5% was from market purchase. Higher percentage of processors (80.95%) obtain their capital from personal savings. Cassava flour was the most popular (70%). Semi-modern method of processing (76.19%) was the most popular in comparison to other materials. Greater percentage (80.95%) for whole sale while most of the processors are married (85.7%). Also, most of their enterprise are located residencially.

**Key words:** Cassava flour • cassava chips • survey • processors

### INTRODUCTION

Cassava is one of the most important food crops in Africa. It derives its importance from the fact that it contains high percentage of carbohydrate and is a valuable source of cheap calories especially in developing countries [1, 2].

Cassava tuber once harvested deteriorate rapidly within 40-48 h. This deterioration in most cases are caused by physiological changes, mechanical damage during harvesting, transportation and handling [3, 4]. Therefore, manufacturers prefer to convert cassava into more stable forms such as chips and flours so as to prolong the shelf life of the product [5]. Cassava chips and pellets are useful in animal feed formulation and ethanol production. Also, cassava flour has found great use in food formulation activities in confectionary industries and in the production of dextrin [5].

There is therefore a need to evaluate state of art associated with processing of these products since there is no detailed information about their processing and utilization trends in Oyo and Ogun State, which are the major producers and consumers of this product in South-western Nigeria.

Therefore, present research is aimed at evaluating the processing technologies of cassava chips and flours in those states of the country.

### MATERIALS AND METHODS

**Sampling frame:** A totals of 40 questionnaires were used for present research.

**Sampling technique:** 40 respondents were randomly selected based on personal interview method with the aid of drafted questionnaires. Eight major areas were visited in Oyo and Ogun States. These are Apoje Farm, Ijebu-Igbo, Molipa, Itele, Killa, Bakatari, Moniya and Eleyele.

**Data collected:** Socio-economic data was collected and the following parameters were evaluated.

- Sources of raw materials
- Source of capital
- Distribution pattern of cassava chips and flours
- Cassava chips and flour production methods
- Marketing channels
- Educational background of the processors of cassava chips and flour
- Age distribution of producers of cassava chips and flour
- Marital status
- Location of the enterprise

**Analytical methods:** Descriptive statistic was used such as simple frequency distribution and percentages.

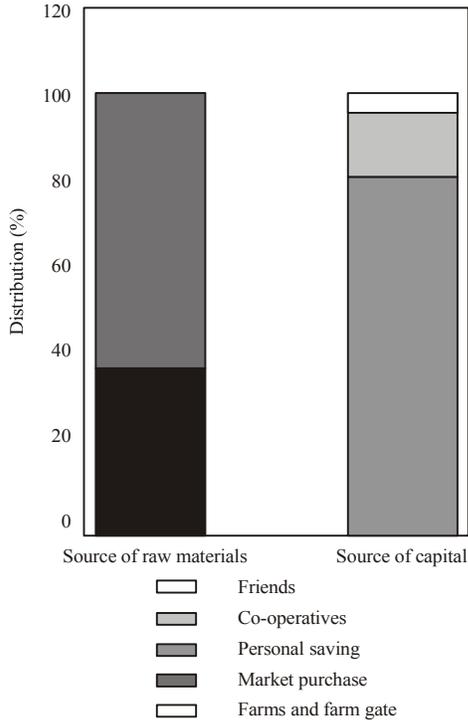


Fig. 1: Sources of raw materials and capital

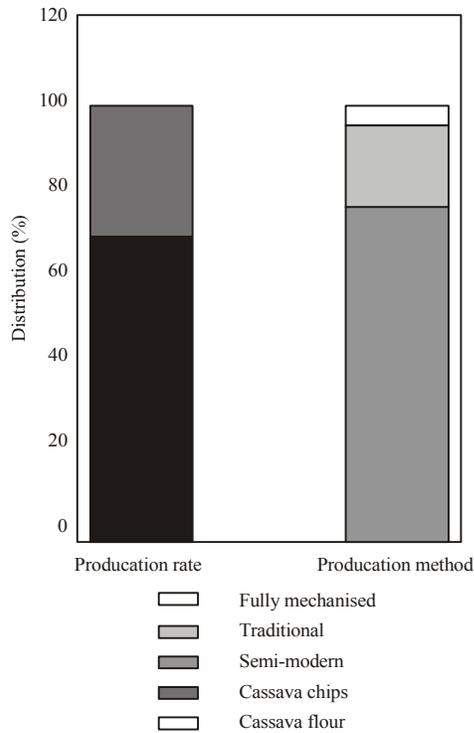


Fig. 2: Distribution pattern of cassava chips and flours and their production methods

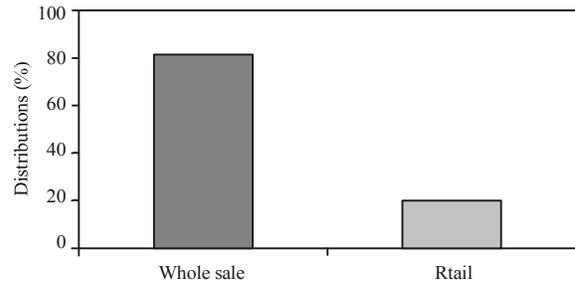


Fig. 3: Marketing channels

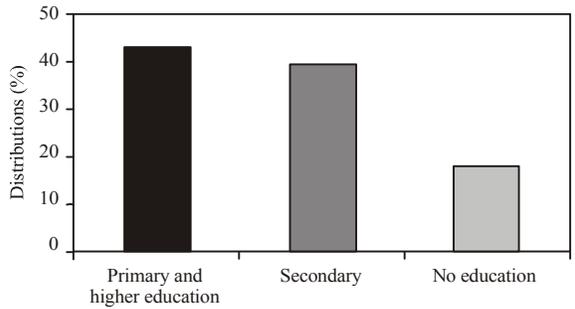


Fig. 4: Educational background of processors

## RESULTS AND DISCUSSION

**Sources of raw materials and capital:** About (37.5%) obtained their raw materials from their own farms and farm gate, while 62.5% was through market purchase (Fig. 1). Also, it was observed that 80.95% of their capital was from personal saving while 14.28% was through co-operatives and 4.77% was from friends.

**Distribution pattern of cassava chips and flours and their production methods:** The production rate of cassava flour was the highest (70%) followed by cassava chips (30%) (Fig. 2). Also, the use of semi-modern method for the production of cassava chips and flour was very popular (76.19%). Traditional method was (19.04%) while fully mechanized method was (4.7%). These differences could be due to cost of equipments.

**Marketing channels:** Greater percentage (80.95%) was observed for whole sale while (19.05%) was for retail (Fig. 3).

**Educational background of processors:** About (42.85%) passed through Primary and Higher education, while (39.53%) attended Secondary school (Fig. 4). The least percentage (17.62%) did not have any formal education.

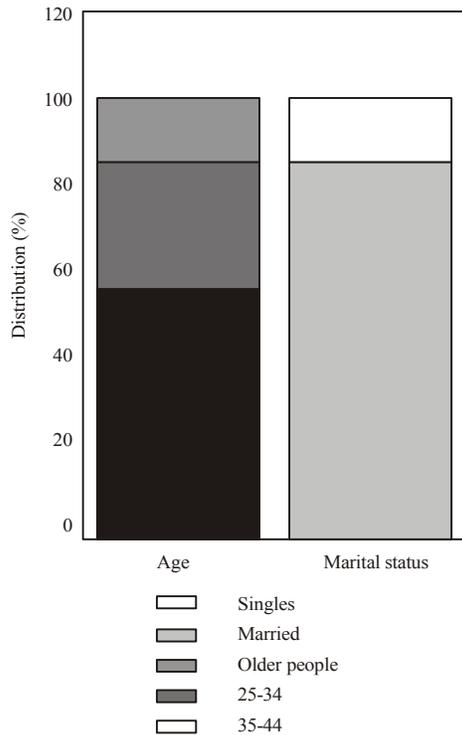


Fig. 5: Age distribution and marital status of producers of cassava chips and flour

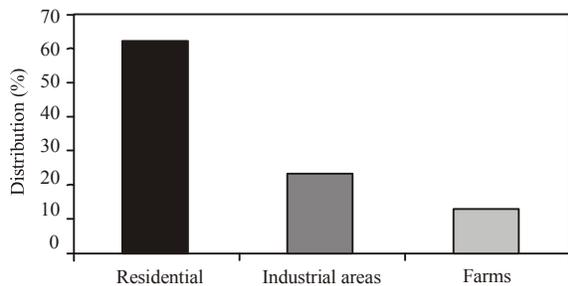


Fig. 6: Location of the enterprises

**Age distribution and marital status of producers of cassava chips and flour:** The greater percentage (57.14%) of producers were between the ages of (35-44) followed by (25-34) years (28.57%), while older people (14.29%) are not actively involved (Fig. 5).

**Marital status of the producer:** A lot of married people (85.7%) are actively involved in this business while (14.30%) are singles (Fig. 6).

**Location of the enterprises:** Most of these enterprises are located residentially (62.9%), while about (23.80%) are located in industrial areas (Fig. 7). The least percentage (13.30%) are located on their farm.

## CONCLUSIONS

It can be concluded that most of the raw materials used for cassava chips and flour productions are sourced locally and that the sustainability of the project depends on their personal savings.

Higher dependence on semi-modern method was also implicated while many people prefer to sell their products in bulk (wholesale) rather than retailing it. Also, the interest of middle-aged people in this business was high. It was also observed that majority prefers to locate their industries in their residential areas.

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