

MARKETING CHANNEL AND MARKETING MARGIN ANALYSIS OF LOCALLY PRODUCED WEANING FOODS IN BENUE STATE, NIGERIA

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ABSTRACT

This paper examined the marketing channels and analysed the marketing margins of locally produced weaning foods marketed in Benue State, Nigeria. Data used for the study were collected from a cross-sectional survey of 18 markets through the use of a structured questionnaire. A multi-stage sampling procedure was used to select 184 respondents for the study. Data collected were analysed using descriptive statistics and marketing margin analysis. The identified dominant local weaning foods marketed in the study area were akamu okiri (guinea corn gruel), akamu joro (millet gruel) and soyabean gruel. These local weaning foods moved through different distribution channels of marketing intermediaries comprising of producers, wholesalers, retailers and consumers. Based on the results of the marketing margin analysis, the wholesalers of akamu okiri had the highest marketing margin of 44% followed by that of akamu joro and soyabean gruel which were 40% and 39% respectively. While for retailers, akamu okiri and akamu joro had marketing margin of 20% and 22% respectively. Apriori expectation was met as wholesalers generally earn more of the marketing margin than the other marketing intermediaries. The components of the marketing margin were identified to be mark-up, transportation cost, storage cost, processing cost and market charges with the mark-up accounting for a large proportion of the marketing margin followed by transportation cost. The study therefore recommends that adequate and improved processing and storage facilities should be put in place to reduce the margins and improve the marketing of local weaning foods in the study area. Also, efforts should be made by the marketers to reduce mark-up as these contribute significantly to the marketing margins.

Keywords: Marketing Margin, Marketing Channel, Locally Produced, Weaning foods, Benue State, Nigeria.

INTRODUCTION

This paper at hand examined the marketing channels and analysed the marketing margins of the dominant local weaning foods marketed in Benue State, Nigeria. Weaning foods, scientifically known as complementary foods are formulated food mixtures fed to babies along with breast milk from six months to three years of age as breast feeding is gradually discontinued (WHO, 2002). Weaning is a natural and inevitable stage in every child's

development and the need to introduce weaning foods to infants cannot be over-emphasized as every child needs to be weaned either with manufactured or locally processed weaning foods or both provided is affordable to the target market. The locally processed weaning foods are composites gruel made from either fermented maize (*Zea mays*), guinea corn (*Sorghum spp.*), millet (*Pennisetum americanum*) or a combination of any ((Awogbenja and Peter, 2021; Mohammed *et al*,

2016). Over the years, it has been observed that the marketing of weaning foods especially the locally produced ones has been neglected, not receiving much attention like the marketing of other agricultural products. A concrete marketing system does not seem to exist to attract would-be marketers.

The need to assess the marketing system of these locally produced weaning foods and subsequently its distribution to end users (consumers) is of great importance and sustaining success of such businesses greatly depends on market opportunities (Wanjohi and Karani, 2017; Okoye *et al.*, 2021). Moreover, no product is of any value to a buyer until it is placed at his or her convenience. Marketing channel also known as distribution channel is a path that products or services take as they move from the producer to the consumer. The examination of these channels is designed to offer a structured understanding of how goods and services traverse from their source (the producer) to their endpoint (the consumer). This understanding is gained by analyzing the entities involved in the process, specifically those who carry out tangible marketing functions to achieve financial gains, thus channels are integrative part of marketer's activities (Alufohai and Izekor, 2020). The marketing of locally produced weaning foods is not restricted to a particular channel but the choice of channel varies depending on the product. The channel of distribution may be from the producer direct to consumer or from a large scale wholesaler to a retailer who then sells to the consumer.

Marketing margins represents the difference between the price received by producers and the price paid by consumers (Kohls and Uhl, 1990). Therefore, marketing margin refers to the difference between the selling price and production cost for wholesalers while for the retailers, it is the difference between the selling

price and the purchase price. In other words, it reflects the costs and profits of marketing intermediaries or agents (popularly referred to as middlemen). These costs are incurred mainly in adding utilities of form, time, place and possession to the product. The concept of marketing margins is crucial in understanding the structure of agricultural markets and the distribution of value along the supply chain. Its analysis is a useful tool to examine the nature of the marketing system, particularly, when deconstructed into various functions performed by the market participants (Abbott and Makeham, 1992). This study therefore examined the different marketing channels and analysed the marketing margins of these local weaning foods marketed in the study area.

METHODOLOGY

The study was carried out in Benue State, Nigeria. Benue State lies within the geographical coordinates of Longitudes 06° 35' East and 08° 10' East and Latitudes 06° 30' North and 08° 10' North. It has a land mass of approximately 30,783km² with a total projected population of 6,141,300 (National Population Commission, NPC, 2022) spread across the 23 Local Government Areas of the State with the capital city in Makurdi. The State is divided into three agricultural zones namely: zone A (eastern zone) which comprises of Vandeikya, Konshisha, Kwande, Ushongo, Kastina-Ala, Logo and Ukum LGA's; zone B (northern zone), comprises of Gboko, Buruku, Tarka, Makurdi, Gwer-East, Gwer-West and Guma LGA's and zone C (central zone), comprises of Otukpo, Obi, Oju, Okpokwu, Apa, Ado, Agatu, Ogbadigbo and Ohimiri LGA's (Benue State Agricultural and Rural Development Authority, BNARDA, 1998).

Economically, the State is based around agriculture, trading and services. They are mainly agrarian, producing crops such as yam,

cassava, sweet potatoes, rice, millet, guinea corn, soyabean and groundnuts, some of which are raw materials for local weaning foods. A large proportion of the population is engaged in farming and agricultural marketing. The study covered the three agricultural zones in Benue State. Primary data used for the study were collected from a cross-sectional survey of selected markets in the study area through the use of a structured questionnaire. A multi-stage sampling procedure was used in selecting the respondents for the study. The first stage was a random selection of three blocks (LGAs) from the three agricultural zones in Benue State according to ADP delineation which gave a total of nine LGA's. The selected blocks (LGAs) in Benue State were Kastina-Ala, Ushongo and Kwande LGAs from the eastern zone, Makurdi, Gboko and Guma LGAs from the northern zone, and Otukpo, Agatu and Apa LGAs from the central zone.

The second stage was the purposive selection of two major markets from each block which gave a total of eighteen markets and this was based on the level of marketing activities of local weaning foods in the markets. The selected markets were Lessel market, Akerior market, Adikpo market, Chigba market, Katsina Ala town market, Abaji market, Modern market, North Bank market, Gboko market, Mbatyav market, Daudu market, Gbajimgba market,

Otukpo main market, Ella market, Obagaji market, Aila market, Ugbokpo market, Iga-okpaya market. The third stage was a proportionate random selection of 75% of marketers of local weaning foods from the selected markets from the sampling frame obtained from the preliminary survey given a total sample size of 200 marketers. This is based on rule of thumb and central limit theorem which states that sample sizes greater than or equal to 30%, should provide enough information to make a statistically sound conclusion about a population. However, only 184 copies of the questionnaire were found useful for analysis. Data collected were analysed using descriptive statistics and marketing margin analysis. Marketing margin (MM) represents the difference between the buying cost of a product (purchase price) and selling price of a product given as:

$$MM = SP - PP \dots\dots\dots(1)$$

where MM= Marketing margin(N)

SP= selling price(N)

PP= purchase price(N)

(Kohls and Uhl, 1990; Arene, 2003; Abbott and Makeham, 1992).

The proportion of marketing margin (MM%) to selling price for market participants is given as:

$$\text{For wholesaler: } \frac{\text{Wholesale Selling Price} - \text{Wholesale buying Price}}{\text{Wholesale selling price}} \times \frac{100}{1} \dots\dots (2)$$

$$\text{For retailer: } \frac{\text{Retail Selling Price} - \text{Retail buying Price}}{\text{Retail Selling price}} \times \frac{100}{1} \dots\dots\dots(3)$$

RESULTS AND DISCUSSION

Marketing Channels for Locally Produced Weaning Foods in the Study Area

For *akamu okiri* and *akamu joro* weaning foods distribution network, various channels facilitated the movement of products from

producers to final consumers as depicted in Figure 1. It showed that locally produced weaning foods moved through different marketing intermediaries comprising of producers(who are also marketers), wholesalers, retailers, and consumers.

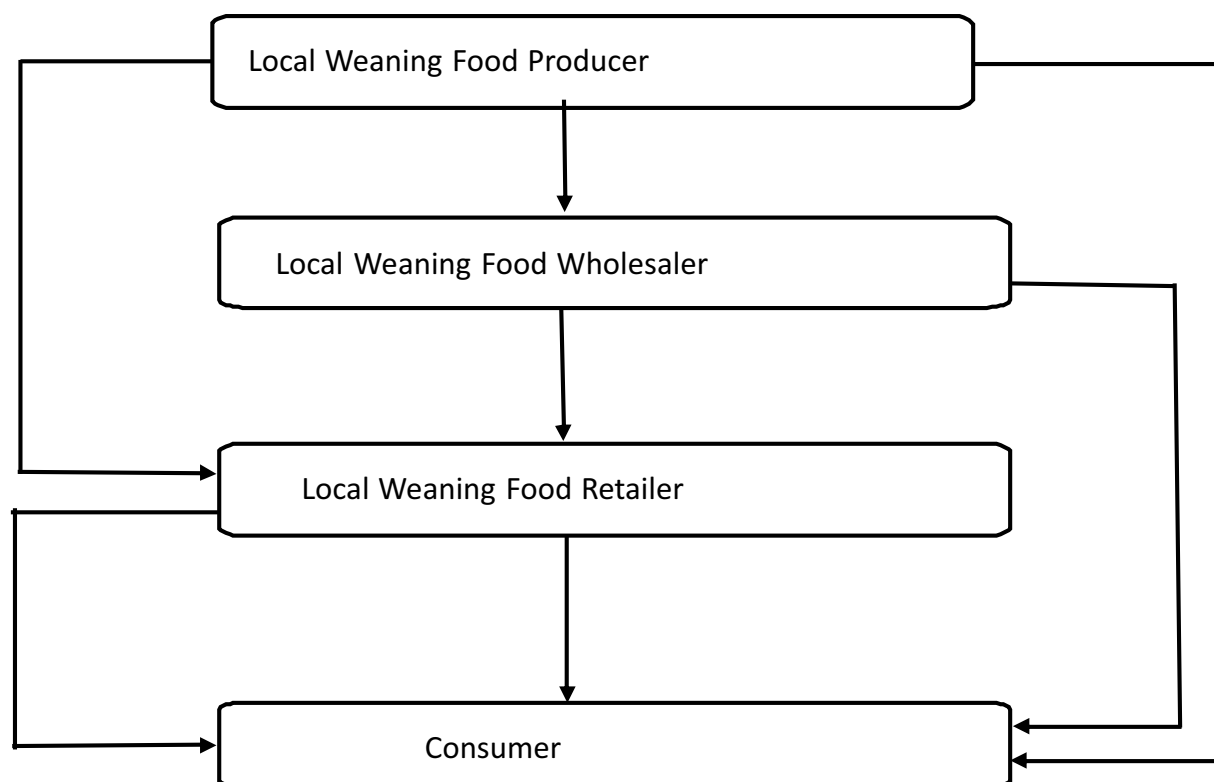


Figure1: Marketing Channel for *akamu okiri* and *akamu joro* weaning foods
Source: Survey Data, 2022

Marketing Channel (1): Producers – Wholesalers – Retailers – Consumers.

Marketing Channel (2): Producers – Wholesalers – Consumers.

Marketing Channel (3): Producers – Retailers – Consumers.

Marketing Channel (4): Producers – Consumers.

The above marketing channels were identified for *akamu okiri* and *akamu joro* weaning foods. It was observed that there is relatively short marketing chain as shown by the few intermediary levels and direct sales to consumers. The implication of this is that some of the marketers are the producers of these local weaning foods themselves and as such may

have their personal reasons which could have motivated their decision to choose either or combination of these four types of marketing levels operated. This is because, the marketers acting as the producer may decide to sell directly to the consumers or sell to wholesalers or retailers who then sell to the consumers.

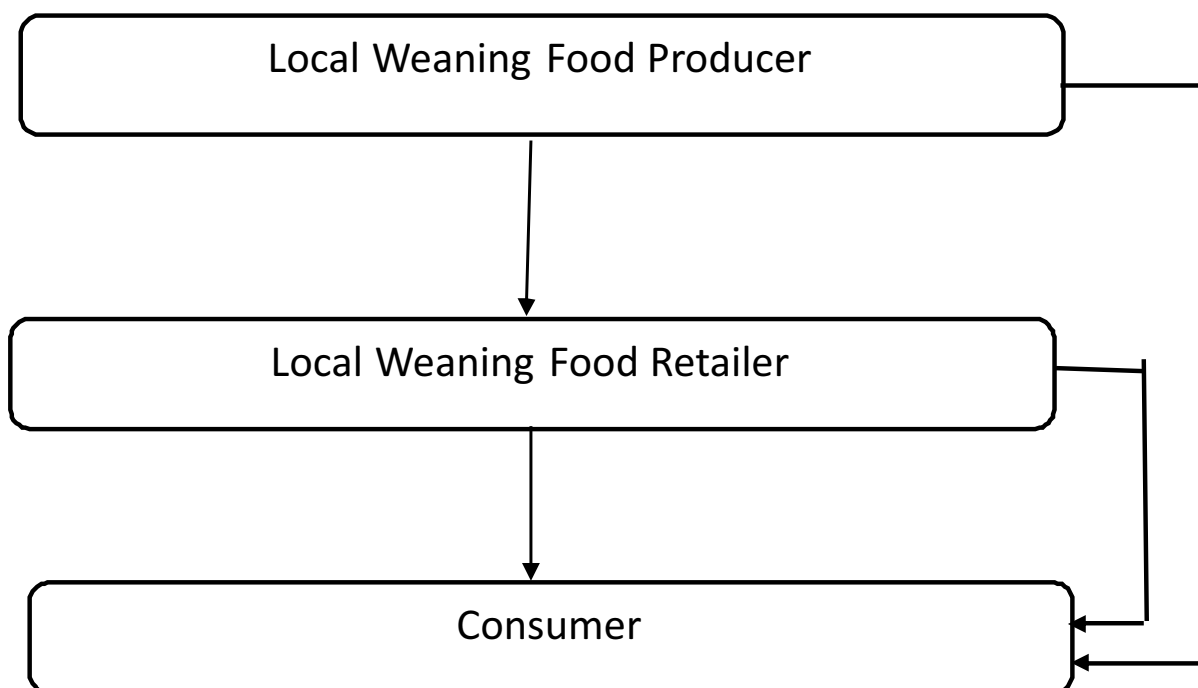


Figure 2: Marketing Channel for soyabean gruel.

Source: Survey Data, 2022

Figure 2 depicted the marketing channel for soyabean gruel. The marketing channel for this product moved from producers to retailers who then sell to the final consumers but mostly moves directly from the producers (marketers) to the final consumers.

Marketing Channel (1): Producers – Retailers – Consumers.

Marketing Channel (2): Producers – Consumers.

This distribution of soyabean gruel from producers to final consumers involve intricate marketing channels that are influenced by various economic factors and precisely the perishability nature of this local weaning food. Therefore, marketers acting as producers may decide to sell directly to the consumers or sell to retailers who then sell to the final consumers in the same marketplace.

Analysis of the Marketing Margin per kilogramme of the Locally Produced

Weaning Foods

The average marketing margin for marketers of locally produced weaning foods is presented in Table 1. The results showed that the average marketing margin per kg for wholesalers of *akamu okiri* and *akamu joro* were N171.43 and N168.18 respectively while that of the retailers were N80.00, N100.00 and N188.98 for *akamu okiri*, *akamu joro* and soyabean gruel respectively. The marketing margins for wholesalers in the study area were generally higher than that of retailers. This was probably because retailers typically bought and sold the local weaning foods in the same market, with little or no value addition, thereby incurring less risks and costs, this agrees with the findings of Achike and Anzaku (2010), who found similar result for benniseed marketers in Nasarawa State. Apriori expectation was met because wholesalers generally earn more of the marketing margin than the other market intermediaries. Specifically, from the result, wholesalers of *akamu okiri* and *akamu joro* had

the highest marketing margin (as % of selling price) of 43.96% and 40.13% respectively, while for retailers, those selling soyabean gruel had the highest marketing margin of 38.89% followed by those selling *akamu joro* and *akamu okiri* who had marketing margins of 22.22% and 20.00% respectively. However, for

locally produced weaning foods, the bulk of the consumer price went to the wholesalers, a possible reason may be due to the relatively short marketing chains observed for these products in the study area.

Table 1: Average Marketing Margin (per Kg) of Locally Produced Weaning Foods

Item	<i>Akamu joro</i>		<i>Akamu okiri</i>		Soyabean gruel
	Wholesaler Mean (N)	Retailer Mean (N)	Wholesaler Mean (N)	Retailer Mean (N)	Retailer Mean (N)
Purchase Price (Product cost)	250.91	350.00	218.60	320.00	296.92
Selling Price	419.09	450.00	390.00	400.00	485.90
Marketing Margin	168.18	100.00	171.43	80.00	188.98
Marketing Margin (as % of selling price)	40.13	22.22	43.96	20.00	38.89

Source: Computed from Survey Data, 2022

Identified Components of Marketing Margin for the Local Weaning Foods

The analysis of the components of marketing margin for the local weaning foods presented in Table 2 showed that the major components of the marketers' marketing margin were mark-up, transportation cost, processing cost, storage cost and market charges. The result showed that the percentage of mark-up for wholesalers of *akamu okiri* and *akamu joro* were 63.2% and 66.9% respectively while that of retailers were 67.9%, 70.2% and 77.9% for *akamu okiri*, soyabean gruel and *akamu joro* respectively. The percentage of transportation cost for wholesalers of *akamu joro* and *akamu okiri* were 18.0% and 22.9% respectively while that of retailers were 15.1%, 15.8% and 24.6% for soyabean gruel, *akamu joro* and *akamu okiri* respectively. The percentage of processing cost for wholesalers of *akamu okiri* and *akamu joro* were 10.4% and 11.1% respectively. The

percentage of storage cost for wholesalers of *akamu okiri* and *akamu joro* were 2.1% and 2.5% respectively while that of retailers were 2.6%, 3.8% and 4.8% for soyabean gruel, *akamu joro* and *akamu okiri* respectively. The percentage of market charges for wholesalers of *akamu okiri* and *akamu joro* were 1.3% and 1.4% respectively while that of retailers were 1.6%, 2.2% and 2.6% for soyabean gruel, *akamu okiri*, and *akamu joro* respectively. The result showed that mark-up accounted for a greater proportion of the marketing margin for both wholesalers and retailers in the study area. This may imply that the marketers' conscious inclusion of high profit was a major determinant, which is an indication of profiteering. This collaborates with the findings of Eronmwon, Alufohai and Ada-Okungbowa (2014), who reported that mark-up was the major component of the marketing margin of plantain marketers in Edo State, Nigeria.

Table 2: Identified Components of the Marketing Margin for Marketers of Local Weaning Foods (per Kg)

Item	Akamu joro				Akamu okiri				Soyabean gruel			
	Wholesaler		Retailer		Wholesaler		Retailer		Wholesaler		Retailer	
	Mean(₦)	% of MM	Mean(₦)	% of MM	Mean(₦)	% of MM	Mean(₦)	% of MM	Mean(₦)	% of MM	Mean(₦)	% of MM
Transportation	30.34	18.04	15.78	15.78	39.32	22.94	19.44	24.61	28.48	15.07		
Storage	4.21	2.51	3.79	3.79	3.60	2.10	3.75	4.75	4.92	2.60		
Processing	18.76	11.15	-	-	17.89	10.44	-	-	19.83	10.49		
Market charges	2.41	1.43	2.58	2.58	2.26	1.32	2.19	2.77	2.92	1.55		
Mark- up	112.46	66.87	77.85	77.85	108.36	63.20	53.62	67.87	132.83	70.29		
Marketing Margin (MM)	168.18	100.00	100.00	100.00	171.43	100.00	79.00	100.00	188.98	100.00		

Source: Computed from Survey Data, 2022

CONCLUSION AND RECOMMENDATIONS

The study analysed the marketing margins of local weaning foods marketed using marketing margin analysis on data from a cross-section of one hundred and eighty-four local weaning foods marketers in Benue State Nigeria. The dominant local weaning foods marketed in the study area were *akamu okiri* (guinea corn thin gruel), *akamu joro* (millet thin gruel) and soyabean gruel. The study established that these local weaning foods moved through several marketing channels comprising of different marketing intermediaries namely: producers, wholesalers, retailers and consumers. From the results of the marketing margin analysis, it is possible to conclude that the average marketing margin for wholesalers were generally higher than that of retailers of these local weaning foods in the study area. The components of the marketing margin were

identified to be mark-up, transportation cost, storage cost, processing cost and market charges with the mark-up accounting for a large proportion of the marketing margin followed by transportation cost. It was therefore recommended that adequate and improved processing and storage facilities should be put in place and reduction of market charges should be implemented so as to reduce the margins and improve the marketing system of local weaning foods in the study area. Marketers are also advised to reduce their mark-up so as not to be seen as being exploitative and this will equally help to reduce the size of the marketing margin. There should also be provision of good roads in order to reduce the cost of transportation as it is one of the major components of the marketing margin.

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