



Market Structure, Conduct, Channel and Margin of Dry Season okra vegetable in India

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Abstract:

The study was carried out with four purposes. The first objective included the socio-economic characteristics of dry season Okra marketers; the second described the marketing channel; the third analysed the structure and conduct of the market; and the fourth determined the marketing margin for dry season Okra marketers. Multi-stage sampling technique was adopted for the study. 55 Okra marketers were selected and structured questionnaires administered to them. Descriptive statistics, Gini coefficient model and Marketing margin analysis were used for analyzing the objectives. Most of the Okra marketers interviewed were females indicating that these were doing active dry season marketing of Okra vegetable in the study area. Four (4) marketing channels were identified. From the Gini coefficient model, which determined the level of concentration in relation to the structure of the markets of wholesale and retail markets, there were no barriers to entry and exit in and out of the markets during the dry season period. There was a high percentage (85 %) in the marketing margin of the marketers. Government's indispensable role in building and repairing worn out roads, as well as constructing new ones; which will in turn bring about reduction in the cost of transportation and minimization of vegetable losses in the marketing process should be encouraged.

Keywords: *Okra, dry season, market, marketing, marketers.*

Introduction

*Okra is an important fruit vegetable crop belonging to the genus *Abelmoschus*, and family *Malvaceae*. It has two main species: *Abelmoschus esculentus* (L.) Moench. and *Abelmoschus caillei* (A. Chev.) Stevels. It originates probably from East Africa and widely distributed in the tropics, subtropics and warmer portions of the temperate region. It features prominently in vegetable markets in the South-Indian conditions. The economic importance of *Okra* cannot be overemphasized. It contains carbohydrate, proteins and vitamin C in large quantities and plays a vital role in the human diet as young immature fruits are important fresh fruit vegetable that can be consumed in different form. They could be boiled, fried or cooked. In India. *Okra* mucilage is suitable for medicinal and industrial applications. It has medically found application as a plasma replacement or blood volume expander. Industrially, *Okra* mucilage is*



usually used in to glaze certain papers and also useful in confectionery among other uses. Marketing of *Okra* during the dry season is complex due to its perishable and seasonal nature as well as its bulkiness. The marketing channel is an important part of its cost, and its location to the market may shorten the path of distribution from producers to consumers and makes the marketing process simple and efficient. Its marketing is gradually developing as many people develop interest to engage in the enterprise as market intermediaries. Proper marketing is necessary to arrest wastage being experienced during the dry season period.

This study therefore (i) analysed the socio-economic characteristics of dry season *Okra* marketers in the study area; (ii) described the marketing channel for dry season *Okra* in the study area; (iii) analysed the structure and conduct of dry season *Okra* market in the study area; and (iv) determined the marketing margin for dry season *Okra* marketers in the study area.

Methodology

The study was conducted in South Indian conditions. Out of the five states which make up South states, Andhra Pradesh, Telangana, Kerala, Karnataka, Tamil Nadu states were randomly selected for the study. The south states have contiguous characteristics in relation to vegetable production and marketing activities of selected indigenous vegetables (especially *Okra*) during the dry season. Primary data which was used for this study was obtained through the use of structured questionnaires administered to the respondents. Two agricultural zones were selected from each of the states making it 20 agricultural zones in a whole. Two markets were randomly selected from a list of major markets from the 2 agricultural zones previously selected. This gave a total of 40 markets. Ten dry season *Okra* marketers were randomly selected from each of the markets, except 4 markets where 6 marketers (i.e. 4 wholesalers & 5 retailers) were randomly selected for the study. In all, a total of 50 marketers each were randomly selected from all the five states. This gave a total sample size of 50 respondents for the study.

Analytical Techniques

Descriptive statistics such as frequencies and percentages were used to analyze the socio-economic characteristics, conduct, and also describe the marketing channels of the respondents. *Gini* coefficient was used to examine the structure, while margin analysis for analyzing the marketers' margins in the study area. *Gini* coefficient was used to measure and examine concentration and degree of inequality of the marketers and then the structure of the market. *Gini*



coefficient refers to a number or an index varying between zero and one; zero signifying perfect equality and one, perfect inequality.

Mathematically, *Gini* coefficient is represented by below:

$$G = 1 - \sum_{k=0}^{n-1} (Y_{k-1} + Y_k)(X_{k-1} - X_k)$$

For wholesalers & Retailers

$$\frac{\text{Wholesale selling price} - \text{wholesale buying price}}{\text{Wholesale buying price}} \times \frac{100}{1}$$

$$\frac{\text{Retail selling price} - \text{Retail buying price}}{\text{Retail buying Price}} \times \frac{100}{1}$$

Results and Discussion

1. Socio-Economic Characteristics of Dry Season *Okra* Marketers

From the research analysis, it was discovered that females were the key players which comprised 85 % of the wholesalers and 100% of the retailers. This implied that any improvement Infrastructure and marketing operations, processing as well as production, females will benefit solely since their roles are crucial and oftentimes interwoven. The wholesalers (39%) and retailers (26%) fell within the age bracket 31-50 years. This implied that the marketers were in their active productive age. A greater percentage of the marketers that are married were wholesalers (63%), and 45% for retailers. Household sizes were generally larger among the wholesalers and retailers, where 74% and 70% have between 4 and 9 people in their families respectively. However, this implies that most of the marketers were of child-bearing age between 31 and 40 years old. Majority (39%) of the respondents had formal education till secondary school level, 25% had primary education, while 15% had education till tertiary, while 8% of the respondents had no formal education. Majority of the wholesalers and retailers who were primarily engaged in dry season marketing and accounted for 84% and 93% respectively, while 16% of the entire respondents were part-time marketers as 7% were engaged in teaching/civil service, 4% were involved in trading of other commodities, 1% were involved in farming activities as producers, while 1% were involved in artisanal works.



This implied that dry season *Okra* marketing is a major lucrative occupation, and hence, draws so many women into its marketing operations.

2. Structure and Conduct of the Market

This section sought to describe and analyses the structure of dry season *Okra* market as well as their conduct:

Incomes	Number of	Percentages	Cumulative	Cumulative	Total sales	% of total	XY
<10000	-	-	-	-	-	-	-
10000-9,999	3	4.4	3	5.4	12000	0.45	0.00022
10,000-	6	9.7	9	6.2	65000	2.55	0.0025
20,000-	10	16.5	18	33.5	225000	6.74	0.012
30,000-	5	7.4	24	41.5	158000	4.12	0.0042
39,999-	32	45.7	51	100.00	2,650,000	89.5	0.487

The distribution of the marketers by their income or sales and the no of marketers in kg values in each category for 61 days were also presented. Sales volume on the other hand, refers to the value of *Okra* vegetable sold by the marketers at each level of the chain. Table 1 shows how *Gini* coefficient was derived. Table 1 showed *Gini* coefficient as 0.49 implying that the concentration of market sales among *Okra* wholesalers was low. This was due to a large number of wholesalers competing with each other. This is an indication that there was no *Okra* wholesaler exercising control over the market price. This is a typical feature of a



purely competitive market structure, a sign of efficiency in the market. In other words, there is also a reflection of low level of income inequality from sales among the wholesalers.

From Table 2, the *Gini* coefficient (0.79) for *Okra* retailers represented a situation where powerful *Okra* retailers dominate the market, a sign of inefficiency in the market structure. From this computation, it can be deduced that there was significant inequality in the income from sales among retailers as against that of wholesalers as 0.49. Hence, the *Gini* coefficient of *Okra* wholesalers indicated greater equality than that of the retailers and vice versa.

Table 2: *Gini* Coefficient for Dry Season *Okra* Retailers in south Indian conditions .

Incomes from	Number of	Percentages of	Cumulative	Cumulative	Total Sales (Y)	% of Total	XY
< 1,000	3	5.5	3	5.5	3,000	0.29	0.00016
1,000-9,999	21	38.2	24	43.7	102,000	9.96	0.038
10,000-19,999	8	14.5	32	58.2	103,000	10.06	0.015
20,000-29,999	9	16.4	41	74.6	145,000	19.53	0.032
30,000-39,999	2	3.6	43	78.2	65,000	6.35	0.0022
> 39,999	12	21.8	55	100.0	551,000	53.81	0.12

3. Conduct of the marketers

Majority of *Okra* wholesalers depend on northern farms, thereby making their procurement, sometimes on a fortnight basis from the north to the area of study. Supply which is from northern states is higher during the dry season period because harvesting takes place at that time contrary to when harvest season takes place. It is pertinent to note that other fruit vegetables listed below come along from the north during the period: Tomatoes (*Lycopersicon esculentum*); Pepper (*Capsicum spp*); Garden egg (*Solanum spp*); and Onions (*Alium cepa*). *Okra* marketers were known to perform certain roles such as: provision of credit to producers (sometimes by the wholesalers and commission men).



Majority (95%) of *Okra* wholesalers made use of public vehicles since the major aspects of their Production took place in northern region of the country. Also, majority (61%) of the wholesalers agreed that there was presence of commission agents in wholesale marketing and agreed that the product price was set by the commission agents themselves. However, majority of *Okra* retailers (89%) believed that individual marketers were the price setters in the market and believed that there was absence of *Okra* market dealers association. This therefore, implied that the marketing of *Okra* is unorganized at the retail level of the market. The rest 23 % and 15% of the wholesalers indicated that their price was set by the individual marketers and *Okra* market association respectively. There was an indication of an informal group of marketers coming together to make *Okra* supply and marketing easy for themselves at the wholesale end. They made agreements with the driver of the vehicle and commission men to bring in the consignments from the north to the study area. The wholesalers were more organized than the retailers who were individualistic in their activities.

4. *Okra* Marketing Channels

Eight marketing channels were identified for *Okra*. Some of the channels went outside the marketing region due to the producers' farming environment (in the northern region of the country). The marketing channels were rightfully identified, though some were negligible compared to others. Channel comparison for *Okra* was also done based on the multiple responses of the marketers. Percentages were used to denote these responses as the products pass through each channel from the producers to consumers.

Marketing Margins

Marketing margin for *Okra* is the difference between producer and consumer prices. It also describes the price differences between other points in the marketing chain, like the wholesale and retail prices of *Okra* vegetable.

Table 3: Mean Purchasing and Selling Prices (in Kg) of Dry Season *Okra* Marketers

Market Dealers (%)	Purchase Price	Selling Price	Marketing Margins
<i>Okra</i> Wholesalers	3,363.00	5,313.00	52.98
<i>Okra</i> Retailers	3,575.00	4,833.00	36.21



Table 3 showed that the percentage marketing margin for *Okra* wholesalers recorded 53% margin than the retailers 36%. This result indicates that its marketing is a profitable business venture in the study area. It should be noted that transportation from the north during the dry season when little or no production takes place is indeed a rigorous experience, and can be said to contribute immensely to their margins. It was also discovered that most of the commission agents were involved in the wholesale business; hence, contributing to their high margins. The percentage margin (83%) showed a higher percentage, and could imply that dry season marketing of *Okra* is more profitable than during peak production seasons. The result implied that a 1% increment in the purchase price of *Okra* at the wholesale and retail levels will virtually lead to an increase in selling price by 52.98% and 36.21% respectively.

Conclusion and Recommendation

Due to the huge supplies from the north, government should embark on the construction of railways linking the northern regions of the country to the south states. This will also drastically reduce the pressure of traffic on the roads. There is need as well as room for market intermediaries to improve their technical knowledge and skill in marketing through training, so that the marketing system will become more responsive to consumers' demand. Hence, this becomes a reality when extension education programmes are introduced to encourage marketing and also bring about improvement in their living standards. Analysis also showed that majority of the marketers expressed a need to form market associations, which will in turn lower transaction costs as well as bring about easy access to market information. With respect to this, *Okra* marketers should be encouraged to form their association.

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