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What Does the Conduct of the Cotton Market in Nigeria Reveal?

J.I. Onu and F.Y. Okunmadewa

Department of Agricultural Economics and Extension, Federal University of Technology, Yola, Nigeria
Department of Agricultural Economics, University of Ibadan, Ibadan, Nigeria

Abstract: The paper examined the conduct of the cotton market in Nigeria during the 1996/97 through 1998/99 cotton-marketing years (MYs). The data was collected from six states in the northern part of Nigeria during market interviews and consultations with buyers and sellers in the markets. The analytical procedure followed the descriptive-diagnostic-prescriptive approach of the structuralist interpretation of the structure, conduct, performance of the market. The study revealed that although some of the characteristics of workable (effective) competition abounded in the market, there were imperfections in the pricing system as revealed by the very high margins and market spread (profitability) as percent of producer price, which was as high as 150 percent in 1998/99. Other flaws in the market included fraud, preemption as manifested by the outgrower scheme operated by buyers, unfair tactics by both buyers and sellers and undesirable collaboration. It was concluded that there was no effective competition in the market.

Key words: Market conduct · effective competition · workable competition · cotton · market

INTRODUCTION

Cotton is one of the world's most important industrial crops. In major cotton-producing countries the expansion of the cotton based textiles industries have paved the way for further industrialization and investment in the sector [1]. Thus the expansion in the textile industries has contributed numerous employment opportunities in the industrial sector and successful cotton production would add seasonal work and cash flow in the rural sector.

The British Cotton Growers Association (BCGA) operated the cotton market in Nigeria until the formation of the marketing boards for cocoa, oil palm produce, groundnut and cotton in 1949 [2]. The cotton board was, however, disbanded along with other commodity boards in 1986 as a result of the deregulation of the cotton market. The deregulation of the cotton market thus permitted private participation in the market and it was expected that it would afford both the sellers as well as the buyer of cotton a fair return on investment as compared to the days of the commodity boards when there was unilateral fixing of prices by the boards. A major consequence of the market liberalization policy was that a new market structure has emerged because of the entrance of individuals firms and corporate organizations that now sponsor production and marketing of cotton in Nigeria. How has this development in the market affected the conduct of the market since the market structure determines the competitive behaviour of firms in the market?

Researchers have focused on the conduct of the commodity market especially in past studies [3-10]. The food crop studies have all touched on market conduct either in the area of competitive behaviour by market participants or price fixing and price stabilization in the market. On cotton, it was reported that the deregulation of the cotton market has made it absolutely impossible to effectively monitor the movement of seed cotton, lint or seed [11]. This post-market deregulation study has not examined the question of the nature of competition in the cotton market.

The conduct of market affects directly the performance of the market. The question that therefore arises is whether the cotton marketing system in Nigeria is effectively competitive. In providing answer to the above question, the objective of the paper will be to analyse the conduct of the cotton market to see how effectively competitive (or otherwise) the market is. The sections that follow will focus on the theoretical framework, the research methodology, the results and discussion and the summary and conclusion.

Corresponding Author: J.I. Onu, Department of Agricultural Economics and Extension, Federal University of Technology, Yola, Nigeria

Theoretical framework: In the economic sense, competition simply refers to the degree of importance of the individual consuming or producing unit in relation to the total industry or market within which that unit operates. The conditions necessary for the existence of pure competition include: a. The insignificance of the individual buyer or seller. There is a great number of buyers and sellers, no one of which is large enough to influence price through his action alone; b. Complete access to market information. Both buyers and sellers have perfect and equal knowledge of the factors, which affect market conditions. They will also make use of this information in an economically rational manner so as to maximize their own individual gain. c. There are no collusive or restrictive agreements among either buyers or sellers. There are so many buyers facing so many sellers that coalition by a relatively large group of them would be unfeasible administratively; d. Homogeneity of product. There may be differences in quality of product but products will not be differentiated by brand name, extra services and so on; *e*. The absence of artificial limitations on entry into or exit from the market. Factors of production are perfectly mobile.

Prices are assumed to be free to move in response to changes in market supply and market demand. Neither market supply nor market demand is subject to the forces of organised pressure groups such as labour unions, trade association or government agencies. The situation defined by the assumption of the purely competitive market does not exist in any important degree in the Nigerian economy. However, most farm products are produced and marketed under condition that approach pure competition. The model of perfect competition provides a model of the most efficient type of economic organization. One of the results of perfect competition is the impersonal relationship of the competitors. As points out economic relationships are never perfectly competitive if they involve any personal relationships between economic units [12]. A framework for explaining how market behaves has been outlined [13]. It is concerned with the environmental setting within which similar enterprises operates and perform as an industry.

The perfect competition of the literature is not a realistic goal for a modern society. The concept of effective competition came up as an attempt to specify a realistic market ideal, which is both desirable (acceptably competitive) and attainable (operationally practical). It was noted that a concept of effective competition is an image of a socially desirable state of affairs in an industry or market [14].

Unlike the theory of pure competition the theory of effective competition attempts to establish attainable as well as desirable standards of industry and market performance. Its basic assumptions are more realistic than those of pure competition. As a result, they provide more useful, although less precise, guidelines for empirical study. The following criteria have been set forth for judging an effectively competitive system [15, 16]: *a.* There must be an appreciable number of buyers and sellers. They do not need to be so numerous as to have no individual market influence, however, the number should be great enough to provide alternative possibilities; *b.*No trader must be as powerful as to be in the position to effectively coerce his rivals; *c.* Traders must be responsive to incentives of profits and loss. The profit and loss must however, not be so huge that they can ignore commercial incentives over long periods of time; *d.* Entry must be free from handicaps, except that which is created by the existence of already established firms; *e.* There must be free access of buyers with sellers. There must be no substantial preferential treatment of any particular trader or group.

The preceding criteria represent the idea of competition that accepts the real life proposition that differences in products do exist, that both price and non-price competition is used and that large firms will develop. This concept enhances the usefulness of market structure analysis. It expressly allows for dynamic economic condition by viewing competition as a dynamic process.

MATERIALS AND METHODS

Data collection: The primary data employed for the study were collected through survey method from cotton farmers and traders in Adamawa, Kaduna, Gombe, Borno, Katsina and Zamfara states with the aid of structured questionnaires administered to 117 cotton sellers and 31 cotton buyers. The states covered in the survey are the most important cotton producing states in Nigeria on the basis of their respective levels of production and long history of cotton marketing activities. In each state market towns and locations were selected for the purpose of weekly market visits to collect data on prices and handling, processing and transfer costs. Information was also gathered on marketing methods and procedures, costs incurred and prices received and the marketing problems faced. Data was collected over a period of three cotton-marketing seasons.

Analytical framework: Scholars have postulated various frameworks for the study of marketing. These include the functional approach, the problem identification approach, the commodity approach, the performance criteria approach and the structure, conduct, performance approach. Specifically, the approaches to the study of marketing issues in the less developed countries have been classified into three categories. These included feasibility studies, descriptive studies and diagnostic assessment [17].

This study adopted elements of the structure, conduct, performance approach with emphasis on a description of the behaviour of market participants. The studies by [8, 9, 18] followed the same pattern in the use of a structuralist interpretation of the structure, conduct performance approach applied to price analysis to determine market competition and assess market efficiency. This analysis emphasizes market processes as economic coordination activities in the cotton market distribution system. This is similar to the total system approach and the descriptive-diagnostic-prescriptive approach [20-23].

RESULTS AND DISCUSSION

The deregulation (liberalisation) of the cotton marketing sector in 1986 sought to remove all forms of barriers to participation in the market and to establish/create a state of effective competition in the market. Realistically, as a result of the liberalized nature of the market it was expected that there would be high number of potential new entrants and new entrants. In line with this it can be seen from Table 1 that the cotton market expanded greatly as about 82 percent and 96 percent of the sellers and buyers of cotton respectively that were surveyed had spent only about 10 years in the cotton business. This reveals that majority of the participants started the cotton trade after the disbandment of the cotton marketing board in 1986. This is a desirable condition in itself because large numbers of buyers and sellers will ensure competition. This does not mean, however, that such numbers are always necessary since the effect has not been very laudable because it was discovered that more farmers had abandoned food crop production and have gone into cotton production. The free entry (removal of barriers to entry) into the cotton market will provide equality of opportunity. It is hoped, however, that the intrinsic merits of free entry will out-weigh the deleterious effects. It does ensure that no single buyer exercises undue influence on market price conduct. Table 1 also shows that majority of the respondents were below 50 years old, had little education and had fairly large families. The occupational distribution shows that the sellers were spread over a wide range of occupation whereas the buyers were mainly traders.

Table 1: Socioeconomic characteristics of the respondents

Socioeconomic characteristics	No. of buyers	% in total no. of buyers	No. of sellers	% in total no. of sellers
Age (Years)				
<28	2	6.45	18	15.38
29-34	4	12.90	31	26.49
35-40	5	16.13	37	31.62
41-45	8	25.81	14	11.97
46-50	11	35.48	11	9.40
>50	1	3.23	6	5.13
Total	31	100	117	100
Educational level attained				
None	6	19. 35	2	1.71
Primary school	2	6.45	34	29.06
Secondary school	14	45.16	19	16.24
Tertiary education	9	29.09	4	3.42
Koranic school	-	-	58	49.57
Total	31	100.0	117	100.0
Major occupation				
Farming	-	-	58	49.2
Trading	12	38.7	22	18.6
Civil service	-	-	10	8.5
Produce buying	10	32.2	19	16.2
Farming and trading	-	-	8	6.8
Trading and produce buying	9	29.0	-	-
Total	31	100	117	100
Experience (Yrs)				
1-5	22	70.9	73	61.9
6-10	8	25.8	24	20.3
11-15	1	3.2	17	14.5
>15	-	-	3	2.5
Total	31	100	117	100

Source: Derived from field survey data

Table 2: Average highest price (N'000) received per ton of cotton at major sources of cotton in northern Nigeria

	Average highest price			%Change in average highest price	
Source of cotton	1996	1997	1998	1996 to 1997	1997 to 1998
Farmers' home	38	35	27.5	-7.89	-21.43
Outgrowers' farms	34	32.87	26.7	-3.32	18.77
Others	40	36.12	30.07	-9.7	-16.75

Source: Computed from field data

Table 3: Quantity and proportion of cotton purchased from major sources in northern Nigeria

Source of cotton	1996 Qty. (Tons)	1996 %of Total Qty.	1997 Qty. (Tons)	1997 % of Total Qty.	1998 Qty. (Tons)	1998 % of Total Qty.	Source total Qty (Tons)	%
Cotton farm	1,141.0	32.2	1,095.2	24.5	534.0	16.3	2,770.2	24.6
Farmers' home	975.6	27.5	1,223.0	27.4	1,226.6	37.5	3,425.1	30.4
Outgrower farmers	1,260.0	35.6	2,009.2	44.9	1,357.7	41.5	4,626.9	41.0
Others	165.7	4.7	140.2	3.1	151.3	4.6	457.2	4.6
Year total (Tons)	3,542.2	100.0	4,467.6	100.0	3,269.6	100.0	11,79.4	100.0

Source: Computed from field data

Table 4: Marketing margin and marketing spread per ton of cotton, 1996/97-1998/99

Marketing Channel	Marketing Margin (MM) 1996/97	Marketing Margin (MM) 1997/98	Marketing Margin (MM) 1998/99	Marketing Spread (MS) 1996/97	Marketing Spread (MS) 1997/98	Marketing Spread (MS) 1998/99	% Change MM 1997-1998	% Change MS 1997-1998
Purchase at farmers' home	3,500(9.21)	15,400(44.0)	27,500(100)	1,650	8,550	19,700	78.57	130.41
Purchase on the farm	7,500(22.06)	17,530(53.33)	28,300(105.9)	5,550	10,780	20,550	61.44	90.63
Purchase from outgrowers	10,500(33.87)	20,400(68.0)	33,000(150)	9,700	14,900	26,800	61.76	79.87
Purchase in village market	1,500(3.75)	14,280(39.53)	24,930(82.91)	-550	7,280	17,180	74.58	135.98

Figures in parenthesis are percent of market margins in producer price

Source: computed from field data

Table 5: Functional analysis of marketing margin per ton of cotton, 1996/97-1998/99

Marketing Channel	(a) Producer price (N)	(b) Gross return (N)	% of (a)in (b)	Marketing costs as per cent of margin: Transportation	Handling charge	Ginning cost	Agent's commission	Tax	Cost of bags	Marketing margin as % of (a)	Marketing spread as % of (a)
1996/96 Season											
Purchase at sellers' homes	38.000	47.000	80.9	5.7	5.7	157.1	24.3	5.7	11.4	23.7	4.3
Purchasing on the Farm	34.000	47.000	72.3	2.7	2.7	73.3	11.3	2.7	6.7	22.1	16.3
Purchase from outgrowers	31.000	47.000	65.9	1.9	-	52.4	-	1.9	3.8	3.9	31.3
Purchase in village market	40.000	47.000	85.1	20.0	16.7	36.7	60.0	13.3	13.3	3.8	-1.4
1997/98 Season											
Purchase at sellers' homes	35.000	50.400	69.0	2.3	1.9	29.2	5.5	1.9	3.6	44.0	24.4
Purchasing on the Farm	32.870	50.400	65.2	1.9	1.1	25.7	4.8	1.7	3.1	53.3	32.8
Purchase from outgrowers	30.000	50.400	59.9	1.5	-	22.1	-	1.5	1.9	68.0	49.7
Purchase in village market	36.120	50.400	71.7	3.5	2.1	31.5	7.0	2.1	2.8	39.5	20.2
1998/99 Season											
Purchase at sell											
Purchasing on the Farm	26.700	55.000	48.5	2.1	1.1	17.7	3.4	1.1	2.1	105.9	76.9
Purchase from outgrowers	22.000	55.000	40.0	1.2	-	15.2	-	0.9	1.5	150	121.8
Purchase in village market	30.070	55.000	54.7	2.4	1.2	20.1	4.0	1.2	2.2	81.2	57.1

Source: Computed from field data

The following factors of workable competition as enunciated [14] were observed to characterize the cotton market in Northern Nigeria. They included large numbers of buyers and sellers, which depicted freedom of entry into the market by prospective participants or new entrants, absence of collusion among participants and absence of persistent price discrimination. Prices were highly flexible and varied from one buying point to the other as shown on Table 2. The quantity of produce procured from each buying point is given in Table 3. The most important source (quantity wise) was the outgrower farmers while the next was the farmers' homes.

The decentralization of the cotton market implies the absence of centralized fixing of producer price and prices of marketing services. This provided marketers the opportunity to continue to make huge profit. The marketing margin and marketing spread increased between 1996/97 and 1998/99 as shown in Table 4. The very high increases recorded for all the channels showed the degree of profitability of the cotton trade. There was variability in the relative remunerativeness of the different marketing channels during the period covered by the study. The marketing margin as percent of producer price varied from 9.2 in 1996/97 for purchases made at home, to 150 in

1998/99 for purchases from the cotton outgrowers. The large marketing margins and market spread are indicative of imperfections in the cotton market and a departure from the perfect market model.

The functional analysis of the marketing margin is given on Table 5. It can be observed that the cost of ginning accounted for the highest percent of total margins. Commission received by buying agents follows this. The cotton trade is profitable as revealed by the marketing margin and the marketing spread (profitability). During the three marketing seasons considered in the survey the traders' profit margin accounted for quite a large proportion of the price, which the sellers received. This indicates that there was pricing inefficiency.

A market is considered to be effectively competitive if and only if, it is free from two kinds of flaws [14]. These are, one, conditions that are considered undesirable both in themselves and in their effects and secondly, conditions considered undesirable only because of their effects. In discussing market conduct, the conditions in the first category include unfair tactics and irrationality as depicted by self – defeating choices by buyers or sellers. Unfair tactics include malicious interference with competition; fraud against customers or suppliers, sale of inherently bad product without notice. In the second category we have inadequate research, predation, preemption, refusals to deal, undesirable discrimination and undesirable collaboration.

The study showed that the cotton market in northern Nigeria couldn't be adjudged to be effectively competitive because it is not free from the flaws listed above. Competitors employ every form of tactic in order to secure a larger market share. Buyers embarked on preemption by adopting the outgrowers' scheme with the purpose and effect of hindering actual and potential competitors. The buyers viewed the formation of cotton growers association by cotton farmers as undesirable collaboration and so they rejected trade association, conferences, or other vehicle of joint action by cotton sellers that would reduce fraud, influence or control prices, foster conservation and disseminate information.

CONCLUSION

The following are the major findings of the study.

- The deregulation of the cotton market has permitted private individuals to participate in the market.
- The characteristics of workable competition such as adequate number of buyers and sellers, freedom of entry and absence of persistent price discrimination were observed in the market.
- Price fixing has been decentralized in the market and it varied from one buying point to another.
- The large marketing margins and market spread that varied from one channel to the other revealed the imperfection in the pricing system
- There were flaws in the conduct of the market such as unfair tactics, fraud against sellers and buyers, preemption and undesirable collaboration in both parties. Thus the market cannot be adjudged to be effectively competitive.

The deregulation of the cotton market was a major reform policy, which sought to reduce distortion in the structure of the market through reduction in government intervention. This was a process referred to as market liberalization. Under the reform policy government has given up all control over prices and prices determine income and the inter-sectoral terms of trade. These variables are important politically. The mode of competition in the cotton market showed that competitors employed all available strategies in order to acquire market power. For example, the outgrower scheme that is commonly practiced is preemptive and so does not encourage a fair competition for the commodity in the market place. The competition in the market is therefore ineffective.

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