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ANALYSIS OF POULTRY EGGS MARKETING IN SOUTH-SOUTH PART OF NIGERIA. A CASE STUDY OF IKA SOUTH LOCAL GOVERNMENT AREA, DELTA STATE, NIGERIA

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ABSTRACT: *Poultry egg marketing is a common enterprise in Ika South Local Government Area, Delta State of Nigeria; but there are no documented research findings on the conduct of the market and profitability to authenticate the viability of this business. Thus, this study was targeted to analyze the performance of poultry egg marketing in Ika South Local Government Area, Delta State. The study was conducted in five purposively selected villages in Ika South L.G.A., Delta State. Twelve (12) respondents were then randomly selected from each of the five selected villages to give a total of sixty respondents. Descriptive statistics were used to analyze the socio-economic characteristics of the respondents, the profitability of poultry egg marketing was determined using gross profit margin analysis, net profit margin analysis and return on investment. Gini Coefficient was used to examine the market structure for poultry egg marketing. The results of the study showed that majority (40.00%) of the poultry egg marketers were within the age group of 30≥ 40 years, majority (71.70%) of the marketers were female, 50.00% were married, 35.00% had family size of 3 - 5 persons. 30.00% of them attained tertiary level of education, 41.67% had marketing experience of 1-5 years, 53.33% had egg marketing as their primary occupation, 65.00% were none members of co-operative societies. The gross profit margin was ₦772,200 while the net profit margin was ₦747,500 per marketer per annum and return on investment was 0.29, which showed that poultry egg marketing is profitable and viable in the study area. Gini Coefficient of 0.3054 showed that there was a moderate inequality in the distribution of incomes among the marketers* hence some level of perfect competition of the market structure. *The major constraints militating against poultry egg marketing in the study area included: inadequate capital, poor transportation, price fluctuations and exorbitant price of poultry eggs. The study therefore recommended that credit granting institutions should be established, effective transportation system and good road networks should be constructed in the study area for easy transportation, price control mechanism should be established to avoid fluctuation of price within the marketing system and the activities of trade union should be minimized to reduce the exorbitant price of poultry eggs to consumers.*

KEYWORDS: Poultry Eggs, Marketers, Profitability, Gini Coefficient, Market Structure, Nigeria.

INTRODUCTION

Background of the Study

An efficient market does not only link sellers and buyers in reacting to current situations in supply and demand but rather has a dynamic role to play in stimulating consumption of output

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which are essential elements of economic development (Haruna, Sani, Danwanka, and Adejo, 2012). Katharina and Stefan (2011) explained that the concept of marketing subsumes a set of different innovative advertising instruments which aim at gaining a large effect with a small budget. This could be achieved through different guerilla instruments such as ambient sensation, viral buzz and ambush marketing which tries to evoke the effect of gaining the attention of a large number of recipients at relatively low cost by means of a surprise effect and a diffusion effect for condoning both consumer behavior and managerial perspectives. As the economy of a nation grows, the gap between farmers and consumers widens and the task of marketing becomes more complex. (Abbott, 1987)

The poultry industry, as a sector of the economy plays an important role in the development of Nigerian economy as it contributes greatly to the Nigerian Gross Domestic Product (GDP). Poultry is a collective term used for Avian species which is nutritionally and economically useful to man (Okoli, 2006). Poultry has become one of the most effective sources of protein for human consumption. It is also a major source of eggs and meat which have high nutritional value, particularly as a source for the supply of animal protein. (Olagunju and Babatunde, 2011). The poultry industry has also served as a major provider of employment, income, industrial raw materials, manure and financial security as stated by Chukwuji, Inoni, Ogisi and Oyaide (2006). Poultry production is attractive since birds are able to adapt easily to changing climatic conditions, have high economic value, rapid generation of income and high rate of productivity.

Egg is a highly perishable product that needs more efficient production and marketing activities. Its production, handling, transportation, distribution and marketing employ a large number of people; therefore the product has great poverty alleviation tendencies.

Recently, the performance of the poultry industry in Nigeria has fallen below expectation due to high cost of feed arising from fluctuations in feed supplies, rising prices of ingredients, poor feed ingredients qualities and inefficiency in production (Olatunji and Ifeanyi-Obi, 2011). These farmers experience high risk and uncertainty during the period of inflation whose effect is non-neutral, impacting on price analysis of the products (Ukoha, 2007).

In realization of the importance of animal protein, the various levels of government in Nigeria have been pursuing programmes at national, state and community levels to boost the mass production of livestock products, to ensure the attainment of Food and Agricultural Organization (FAO) recommendation of thirty-five grams per caput of animal protein per day (Ojo, 2003). Some of these programmes include; the Farm Settlement Scheme, Agricultural Development Programme (ADP), Better Life for Rural People Programme, Micro Credit Scheme for Livestock Production and lately, the United Nations Development Programme (UNDP) sponsorship of the establishment of livestock parent foundation stock at the community level in Nigeria. The latest UNDP programme has the objectives of training farmers on adopting and rearing livestock through modern methods, and improving livestock breeds, gradually upgrading local breeds for increased livestock products and farmers' incomes.

Marketing, according to Adetiyan, Adeleke and Sallakpo, (2007), is the performance of all activities involved in the flow of goods and services from initial production until it is in the hands of the ultimate consumers. Application of marketing in agriculture means selling agricultural produce or transporting farm outputs to consumers. Agricultural marketing is primarily concerned with government policies towards the distribution and processing of farm produce. Marketing functions are performed by middlemen that include buying, selling,

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processing, storage, transportation, standardization, financing, risk bearing and provision of market information. (Yinka, 2009).

The egg as a major product of poultry is one of the most nutritious and complete food known to man. Being the cheapest per unit source of animal protein, eggs are more readily affordable by the populace than other sources of animal protein (Olatunji and Abesogun, 2012). Low animal protein intake has remained a major human nutritional problem in Nigeria, especially for low income and non-wage earners (Amaefule, Ironkwe and Ojewola, 2009).

Egg marketing can be a viable strategy to alleviate poverty as small capital outlay can be used to start the business. Egg marketing business is profitable enough to sustain many unemployed people in the society; becoming a way out for the marketers who have no alternative means of livelihood. Egg marketing would be highly beneficial to the society at large as it would eliminate the shortage in the supply of poultry products thereby bridging the gap between the demand and supply of the products in the market and at the same time serve as a source of income for those who engage in its production. (Afolabi, 2002).

Egg is a rich source of protein, lipids, vitamins, phosphorus and other nutritionally important substances. Eggs are easily digestible and they are a source of raw materials for agro-allied industries that utilize them in the production of food, drinks, baking, confectionary and in the propagation of viruses in vaccine production. Usually market demand and supply determines egg prices. In Nigeria, egg, fresh poultry meat and frozen poultry meat are sold directly to consumers at the farm gate, open market, commercial distributors, super markets, fast food companies, hotels and by other hospitality industry operators (Katherine, Mary Kay and Robert, 2010).

Market structure is defined as characteristics of the organization of a market which seem to influence strategically the nature of competition and pricing behavior within the market (Bain, 1968).

According to Olukosi, Isitor and Ode, (2007) market structure tends to consider whether the number of firms producing a product is large, the entry of firm is easy or difficult and whether the purchases for the products are in a competitive state or not. It equally relates to the degree of market in terms of the degree of concentration (number and size of buyers and sellers), integration, product differentiation, etc. It also includes parameters such as distribution of buyers and sellers, entry ease of new firms into the industry and availability of market information. Market structure analysis emphasizes the nature of market competition and attempts to relate the variables of market performance to types of market structure and conduct. It is a description of the number and nature of participants in a market. The setup of market consists of the degree of concentration of buyers and sellers, integration, product differentiation and the degree of competition between buyers and sellers. Structure also refers to the number of sellers and buyers and homogeneity or degree of differentiation of product. The term competition always specifies the presence in a specific market of two or more sellers and two or more buyers acting independently of other buyers (Reddy, Ram, Sastry and Devi, 2004). Imoudu and Afolabi (2002) stated that market structure for agricultural products in Nigeria is not perfectly competitive due to the collusive tendencies of sellers forming associations for particular products.

Perfect competition is a market in which every firm is too small to affect the market price. Alternatively, a market is said to be perfectly competitive when there are many sellers and

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buyers transacting a homogeneous product. Business people often use the word competition to mean rivalry. In economic theory, perfect competition means no rivalry among the sellers. A perfectly competitive market is characterized by a complete absence of rivalry among the firms (sellers) (Koutsoyiannis, 1992). Perfect competition has the following characteristics: there are many sellers in the market, the products are homogeneous, there is no control over price and most of the commodities sold are farm commodities, free entry or exit of firms, no government regulations, perfect mobility of resources and perfect knowledge (Reddy, Ram, Sastry and Devi, 2004).

Imperfect competition is a market in which firms can appreciably affect the market price of the product. It implies that in imperfect competition the individual sellers have some degree of control over the price of the products. In imperfect competition, intense rivalry exists among the firms. Monopolistic competition is a market structure in which there is one seller and many buyers in the market, differentiated products, some control over price and it is retail trade (Reddy, Ram, Sastry and Devi, 2004).

Oligopoly is said to exist when few firms are engaged in buying and selling. If few firms are engaged in selling a homogeneous product; this is referred to as pure oligopoly but a situation where few firms are engaged in selling differentiated products is referred to as differentiated oligopoly. Pricing tends to be a delicate issue in oligopoly market structure because of the fewer firms in the market. Thus, any foreseeable gain in the market share of one firm usually leads to a perceptible loss in the market share of one or more of its few competitors.

The structure, conduct, and performance paradigm approach are suitable criteria for defining an adequate market situation, optimizing social welfare and maximizing the efficiency of agricultural marketing systems. The approach has been used by many researchers in the marketing of agricultural commodities in Nigeria. Some of the researchers include the following authors: Oseni, (2004), on structure, conduct and performance of cocoa marketing in Ondo State; Adejobi, Babatunde, Idowu (2011), on weight and measurement issues in retail marketing of fresh tomatoes, evidence from Osun State, Nigeria; Samdi and Damisa (2012), on analysis of tomato marketing among women in Sabon-Gari Local Government Area, Kaduna and others, just to mention but a few, hence the justification for choosing the approach for this study. The structure, conduct and performance paradigm approach is a convenient conceptual framework of studying marketing system which assumes a causal relationship connecting structure through conduct to performance. Performance in a marketing system is a reflection of the business behavior (conduct) which also arises from the structure. According to Olufokunbi (1984), structure has been defined as the significant economic variables that characterize an organization. It refers to certain characteristics of the market, which are believed to exercise a strategic influence on the nature of competition and the process of price formation. The elements of structure include the following:

i. A brief history of the industry of interest

ii. Barriers to entry

iii. Product differentiation

iv. The industry's growth rate of demand

v. Size and number of buyers and sellers (Concentration Ratio)

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vi. Elasticity of demand

vii. Ratio of fixed costs to variable costs in the short run.

viii. Market conduct, which explains the behavioral characteristics in the market place. Price and promotions are the two variables which were used to determine the market conduct. The prices are determined by the forces of demand and supply. However, haggling and bargaining power of the market participant is very important. Conduct can be described as the behavior of the industry of interest with reference to its activities. It consists of the firm's policies towards its product markets and toward the moves made by its rivals in that market. It deals with how the various functions of the institution under focus are performed and concerns the firm's output and price selection. The conduct elements are marketing channel, pricing practices, advertising practices, impact of trade association, buying and selling practices, opening duration per day and opening days per week etc. as it affects participants in the market.

ix. Performance appraises how much the economic results of an industry market behavior moves near the best goals set for that industry. It is the outcome of the behavior of the interaction of structure and conduct. It is also the assessment of how well the process of marketing is carried out and how successfully its aims are achieved. The elements traditionally classified under performance are profit, operational efficiency, pricing efficiency, stability and progressiveness. Other elements of performance include technological progressiveness, price stabilization, level of output, product suitability, employment, reduction of risks, dissemination of information, cost of sales promotion, sense of belonging by the industry's employees, high rating given by customers and ethical practices.

x. Bain (1959) developed the Concentration Ratio which is the share of the total size of a given market or industry that is accounted for by a few largest firms. Bain and Adams have also each used the results obtained for CR4 (Concentration Ratio of the largest four firms) to categorize the degree of concentration in an industry into four, based on the share accounted for by the four largest size firms as follows:

1) Extreme High – When the largest four firms account for 75% or more of the market share concentration.

2) Highly concentrated 50 - 70%

3) Moderately concentrated 25 - 49%

4) Relatively low concentration less than 25%

xi. Another set of indexes called the summary concentration indexes were established due to varying influence on the behavior of the industry; one of such is the Gini Coefficient (GC). The GC is a statistical measure based upon the Lorenz curve. The curve measured the degree of inequality that exists in the share of the industry's market size by its firms. It relates the percentage of total volume of products handled in a market to the percentage of firms' sales in the

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market cumulated from the smallest to the largest. The lower limit of this measure is zero while the upper limit is unity.

The marketing of poultry eggs in Nigeria faces a number of problems which include:

i. Relatively small localized market. Poultry eggs are produced on small-scale farms scattered within the locality. It is a difficult task to organize and assemble the product for efficient marketing.

ii. Price fluctuations due to instability in the economy and other seasonal factors usually cause a lot of problems to the demand and supply of eggs thereby resulting in changes in prices of products.

iii. Poor transportation system. In most poultry production areas, there are no good access roads to farms. Therefore, farmers and marketers pay very high transportation costs to move the products to a desired market or customer.

iv. Inadequate storage facilities. This is a very serious problem posed to farmers and in most markets result in wastage of farm products through storage, pest and spoilage because farm products are perishable foods. Most of the products are lost before they get to the final consumers.

v. Insufficient marketing research. Producers efforts have been geared towards producing more poultry produce without thinking about how to market the produce. There is need for research on consumers demand, preference handling, etc. in order to have an effective marketing system.

The specific objectives of this study were:

i. To describe the socio-economic characteristics of the poultry egg marketers in the study area.

ii. To determine the profitability of poultry egg marketing in the study area.

iii. To appraise the market structure for poultry egg marketing in the study area.

iv. To identify the major constraints of poultry egg marketing in the study area.

The scope of the study covered all poultry egg marketers in Ika South Local Government Area of Delta State.

The findings of this study contributed to the knowledge of economic developments in the poultry eggs marketing sub-sector of the economy in that it determined the profitability, market structure and efficiency of poultry egg marketing in the study area. It also suggested ways of improving on poultry egg marketing in Ika South Local Government Area of Delta State in particular and Delta State of Nigeria in general.

The knowledge from this study provided necessary information needed by agricultural development planners and policy makers on the potential and constraints of poultry egg marketing in the study area as well as possible solutions that would lead to effective and efficient poultry egg marketing in the area of study.

ISSN 2053-5805(Print), ISSN 2053-5813(Online)

METHODOLOGY

Area of the Study

The study was carried out in Delta State, Nigeria. The State covers a land mass of about 18,050km^2 of which more than 60% is land. The State is located in the southern part of Nigeria within latitude $6^0 6^1$ and 6^0 N; and longitude $6^0 13^1$ and $6^0 25^1$ E, with annual mean rainfall and temperature of 2000-23000mm and 28^0-30^0C respectively, (Nwajei, 1993). The State shares boundary with Edo State to the North, Bayelsa State and the Atlantic Ocean to the South, Anambra State to the East and Ondo State to the West. The State lies in the forest vegetation belt. Trees and arable crops are predominantly grown by farmers who form about 70% of the population and are mostly small scale farmers.

Ika South Local Government Area covers an estimated land mass of 895km^2, with a population of 167,060 (Census, 2006). The Ika South Local Government Area shares boundaries with the Ika North East L.G.A. to the East, Ukwani L.G.A. to the South in Delta State and Orhionmwon Local Government Area of Edo State to the North and West respectively. It lies between Latitude 2^0 and longitude 3^0 of the equator. (Delta Beckons, 2011)

Ika South Local Government Area's ecology is reflective on the tropical rain forest belt. This probably, explains why farmers make up more than 90% of its population.

The population of the study covered all poultry egg marketers in the study area.

Purposive sampling technique was used to select five villages namely; Agbor-Obi, Boji-Boji Agbor, Alifekede, Alihame, Abavo, from the twenty-two villages that make up Ika South Local Government Area, Delta State. From each of the villages, twelve (12) poultry egg marketers were randomly selected to give a total of sixty (60) respondents used for the study.

Primary and secondary data were collected and used. The primary data were collected through the use of oral interviews, personal observations; sixty (60) well- structured questionnaires were administered and retrieved from the respondents.

The secondary source of data were gathered from existing findings, information in journals, books, the internet and other research academic materials

Descriptive statistics such as frequency distribution, percentages and mean were used to analyze the socio-economic characteristics of the respondents. Profit determination was done using Gross Profit Margin analysis, Net Profit Margin Analysis and Return on Investment . Gini coefficient model was used to determine the market structure of poultry egg marketing in the study area.

Analytical Framework

Gini Coefficient

According to Eboh (2009), the Gini Coefficient is a number between zero and one that measures the degree of inequality in the distribution of income in a given society. The coefficient is zero (0.0 = minimum inequality) for a given society in which member received exactly the same income while it registers a coefficient of one (1.0 = maximum inequality) if one member got all the income and the rest got nothing. GC is a measure of inequality, defined as the mean of absolute differences between all pairs of individuals for some measures. The

ISSN 2053-5805(Print), ISSN 2053-5813(Online)

minimum value is 0 when all measurements are equal and the theoretical maximum is 1 for an infinitely large set of observations where all measurements but one has a value of 0, which is the ultimate inequality.

Mathematically, Iheanacho, (2005) expressed and used the Gini Coefficient as follows:

$$GC = 1-XY$$

Where;

GC = Gini coefficient

X = Percentage of egg marketers

Y = Cumulative percentage of their sales (egg marketers) income

The Gini Coefficient was used to measure the degree of concentration of the traders through the use of total value of monthly sales as an index measurement of the market share. The Gini Coefficient (G) was computed as follows:

$$G=1-\sum_{i=0}^{k} XiYi$$

Where Xi = proportion of sellers in the i^{th} class of traders,

Yi = cumulative proportion of sales made by the sellers in the i^{th} class traders,

k = number of classes.

The Gini Coefficient varies from 0 to 1, where 0 implies perfect equality in the distribution (perfect market) and 1 implies perfect inequality (imperfect market). The closer the Gini Coefficient is to zero, the greater the degree of equality and the lower the degree of concentration; thus the more competitive the market. Similarly, as the Gini Coefficient approaches unity, the degree of inequality becomes greater, the level of concentration becomes higher and the more imperfect the market.

Gross Profit Margin Analysis

The gross margin of an enterprise is the difference between gross income (total revenue) and the total variable cost incurred (Olukosi and Erhabor, 2005). It is expressed thus:

$$GPM = TR - TVC$$

Where;

GPM = Gross Profit margin

TR = Total revenue

TVC = Total variable cost

Variable cost includes cost of poultry eggs, transportation, and labour while those associated with fixed cost includes cost of egg crates or tray, rent and rate tax, etc.

ISSN 2053-5805(Print), ISSN 2053-5813(Online)

Net Profit Margin Analysis

NPM =TR –(TFC + TVC) (Olukosi and Erhabor, 2005).

Where;

NPM = Net Profit Margin

TR = Total Revenue

TFC = Total Fixed Cost

TVC = Total Variable cost

RESULTS AND DISCUSSION

The results of the research work are presented in tabular form showing the number of respondents for each variable and the percentage of relative frequency. The tabulation based on the sixty (60) questionnaires retrieved.

Table3.1. Distribution of the Socio-Economic Characteristics of the Respondents (N = 60)

Variable	Frequency	Percentage (%)	Mean/Mode
Age (Years)			
Less than 30	13	21.67	
30 ≥ 40	24	40.00	39years
40 ≥ 50	15	25.00	
50 ≥ 60	5	8.33	
Above 60	3	5.00	
Sex			
Male	17	28.33	
Female	43	71.6	Female
Marital Status			
Single	13	21.67	
Married	30	50.00	Married
Divorced	5	8.33	
Widowed	10	16.67	
Separated	2	3.33	
Family Size			
0 – 2	16	26.67	
3 – 5	21	35.00	5 Persons
6 – 8	20	33.33	
More than 8 Persons	3	5.00	
Educational Level			
Primary Level	15	25.00	
Secondary Level	17	28.33	Tertiary
Tertiary Level	18	30.00	Education
No formal education	10	16.67	

ISSN 2053-5805(Print), ISSN 2053-5813(Online)

Marketing Experience (Years)			
1 – 5	25	41.67	
6 – 10	20	33.33	7years
11 – 15	8	13.33	
16 and above	7	11.67	
Primary Occupation			
Farming	19	31.67	
Egg Marketing	32	53.33	Egg Marketing
Civil servant	7	11.67	
Others	2	3.33	
Membership of Co-operative Societies			
Yes	21	35.00	
No	39	65.00	Non-Membership

Source: Field Survey Data, 2016

Table 3.1. shows the distribution of the socio-economic characteristics of respondents. Majority (40.00%) of the respondents were between the age group of 30 ≥ 40 years with a mean of 39years. This result is in agreement with the findings of Afolabi (2007) in his study of egg marketing in South Western Nigeria who reported that egg marketing in the study area was dominated by young people who were still in their active age.

Majority (71.67%) of the respondents were female, 50.00% of the respondents were married with a mode of married persons; 35.00% of the respondents had family size of 3 – 5 persons, 30.00% of the respondents had tertiary education, 41.67% of the respondents had 1 – 5 years of poultry eggs marketing experience, 53.33% of the respondents were traders who engaged only in poultry egg marketing activities, 65.00% of the respondents did not belong to any co-operative society with a mode of non-membership of co-operative societies.

Table3.2. Distribution of Poultry Egg Marketers based on the Profitability of Poultry Egg Marketing per Marketer per Annum in the Study Area.

Cost/Revenue Items	**Amount (₦)**
Revenue from sales (3,990 crates)	3,325,000
Total Revenue	**3,325,000**
Fixed Cost	
Cost of egg crates/tray	5,500
Cost of rent	18,000
Market tax	1,200
Total Fixed Cost	**24,700**
Variable Cost	
Cost of purchased eggs (4000 crates)	2,500,00 0
Transportation cost	28,800
Storage cost	6,000
Labour cost	18,000
Total Variable Cost	**2,552,800**
Total Cost	**2,577,500**
Gross Profit Margin	772,200
Net Profit Margin	747,500

Source: Field Survey Data, 2016

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The data in Table3.2 shows that the total revenue was ₦ 3,325,000, total fixed costs was ₦ 24,700, total variable costs was ₦ 2,552,800, the total cost per annum was ₦2,577,500, while the gross profit margin was ₦772,200 and net profit margin of ₦ 747,500 per marketer per annum and return on investment was 0.29 for poultry egg marketing in the study area. The result showed that poultry egg marketing is a profitable enterprise because for every ₦1 invested in the business, it yielded ₦0.29. This finding is almost in agreement with the findings of Haruna, et al.(2012), who reported ₦1.20 as returns per naira invested on fresh tomato marketing in Bauchi Metropolis of Bauchi State, Nigeria.

Table 3.3 Distribution of Poultry Egg Marketers by Yearly Sales in the Study Area.

Monthly Sales (₦)	Frequency	Relative Frequency	Proportion of Egg Sellers (X)	Total Value of Sales(₦)	Proportion of Total Sales (₦)	Cumulative Proportion of Total Sales (Y)	XY
<50,000	5	0.083	0.00083	266,283	2.11	2.11	0.0017
50,001-100,000	11	0.183	0.00183	5,777,653	45.70	47.81	0.0874
101,001-150,000	31	0.517	0.00517	3,922,759	31.03	78.84	0.4076
151,001-200,000	8	0.133	0.00133	1,401,302	11.08	89.92	0.1169
201,001-250,000	3	0.050	0.00050	690,224	5.46	95.38	0.0477
>250,000	2	0.033	0.00033	584,262	4.62	100	0.0333
Total				12,642,483	**100**		0.6946

Source: Computed from Field Survey Data, 2016

The Gini Coefficient analysis showed a concentration in the market of 0.3054 indicating a moderately competitive market structure with moderate inequality in the earnings (revenue) among the poultry egg marketers. The higher the Gini Coefficient, the higher the income inequality among the poultry egg marketers. Therefore, the market structure did not provide great income inequality in the market. This is almost in consonance with Afolabi, (2004) who reported a Gini Coefficient of 0.47892 in his study of an evaluation of beef marketing in Osun State, Nigeria; which implied moderate inequality in the distribution of income among beef marketers in the study area.

The value of Gini Coefficient ranges between 0 and 1 (Todaro, 1983). The closer the value is to unity, the greater the degree of income inequality and hence the higher the level of market concentration and vice versa. The Gini Coefficient of 0.3054 obtained in this study is an indication of a moderate inequality in the income of the marketers which suggest low level of concentration and hence some level of perfect competition of the market structure.

ISSN 2053-5805(Print), ISSN 2053-5813(Online)

Table 4.0 Distribution of respondents based on Constraints Encountered by Poultry Egg Marketers

Problem	Mean	Rank
Inadequate capital	4.38*	1st
Price fluctuations	4.16*	3rd
Poor transportation	4.20*	2nd
Low product demand	2.30	6th
Exorbitant price of eggs	4.11*	4th
Inadequate supply of poultry eggs	2.80	5th

***Mean score of 3.00 and above are significant

Source: Field Survey Data, 2016

To determine the level of seriousness of the constraints faced by poultry egg marketers in the study area, a 5-point Likert Scale of strongly agree (code 5), agree (code 4), undecided (code 3), strongly disagree (code 2), disagree (code 1) was used. A mean score of 3.00 and above means that the constraints were significant and a mean score of less than 3.00 means they were not significant. From the result obtained, it revealed that inadequate capital, poor transportation, price fluctuations and exorbitant prices of poultry eggs were the major constraints faced by the poultry egg marketers. While inadequate supply of poultry eggs and low product demand were not significant constraints faced by the poultry egg marketers. This also agrees with the findings of Mohammed, Mohammed, Ayanlere and Afolabi, (2013) in their study "Evaluation of Poultry Egg Marketing in Kuje Area Council Municipality of Federal Capital Territory, Abuja, Nigeria"; the result showed that 80% of the egg marketers encountered problems of transportation, price instability which is due to bad roads and poor condition of vehicles. Okpeke and Amotsuka, (2012) in their study on "Economic Analysis of Poultry Egg Production in Sapele Local Government Area, Delta State, Nigeria" also identified the major constraints of commercial egg production as inadequate investment capital (90%), high cost of major inputs (feed and medication) (71%), high prevalent rate of disease outbreak (69%), poor quality of day old chick (65%), lack of access to veterinary service (61%), inadequate training facilities (58%), high cost of equipment (54%), and low prices of products (eggs) (51%).

CONCLUSION AND RECOMMENDATIONS

Conclusion

Based on the findings of this study, it could be concluded that marketing of poultry eggs is a profitable venture in the study area as indicated by gross profit margin of ₦772,200 and net profit margin of ₦747,500 per marketer per annum with a return on investment of 29%. The market structure was moderately competitive and inequality of income was moderate (GC = 0.3054) which revealed that income distribution was not at the extreme of maximum or minimum inequality but tilted to minimum inequality. This shows that the market structure is closer to a perfectly competitive one with moderate income inequality among poultry egg marketers in the study area.

ISSN 2053-5805(Print), ISSN 2053-5813(Online)

Recommendations

In line with the findings of the study, the following recommendations are forwarded:

1. Credit granting institutions should be established to render special financial services to poultry egg marketers at a single digit interest rate in order to enhance the viability of poultry egg marketing.
2. Effective transportation system and good roads should be constructed in the study area for easy transportation of poultry eggs.
3. Price mechanism should be established by the Government to avoid fluctuation of price within the marketing system.
4. The activities of trade union should be restricted to reduce the exorbitant price of poultry eggs to consumers in the study area.

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