

Analysis of Marketing Systems among Poultry Egg Traders in Jos, Plateau State, Nigeria

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Abstract

Marketing systems and functions in Nigeria are inadequate thus limiting the responsiveness of agro commodity marketing processes; demand and supply deficits still persist with low economic potentials. This study, therefore, explores the marketing systems of poultry egg traders in Jos North, Plateau State, Nigeria. Double (2) stage sampling technique was used in selecting the respondents for this study. Primary data collected were analyzed using descriptive statistics (frequency counts and percentages). The result revealed that the most prevalent market channel for poultry egg traders in the selected market was directly to retailers (58.9%). Also, most (66.7%) of the respondents graded their eggs based on size. Furthermore, most (71.1%) of the respondents encountered financial constraints; inefficient marketing structure (64.4%); price instability (58.9%) and inadequate storage facilities (50%) were also significant constraints that affected poultry egg marketing in the study area. Improved access to agricultural credit; establishment of well-structured and accessible markets; fair agro commodity price modulations; adoption of modern facilities; improved transportation networks and fares; cooperative formation; sensitization on market functions; and mitigating supply deficits are strongly recommended.

Keywords: marketing channel; market constraints; market functions; marketing systems; poultry egg; traders

1. Introduction:

Poultry is a general name for birds of several species such as chicken, turkey's ostriches and geese, guinea fowl, swans and pigeon, chicken is the most popular of all poultry birds especially in the tropics (Adegbola, 2000). Obioha (2005) stated that the poultry industry in Nigeria has undergone a most significant transformation, from a backyard household-oriented husbandry into a commercial enterprise. Poultry farming is looked upon both as a means of livelihood and a way of achieving certain level of economic independence. Poultry consumption offers the greatest percentage of protein intake in Nigeria (Anyanwu, 2006). The poultry industry in Nigeria currently is constitutes about 10% of the total population of the livestock, due to the fact that the industry is mainly subsistent (Anyanwu, 2006). Poultry product (meat and eggs) have assumed the role of providing much needed animal protein in our daily diets (Aihonsu and Sunmola, 1999). Poultry eggs contributed to the palatability of many dishes by adding about the same amount of animal protein as pork and poultry meat (Alabi and Isah, 2002).

Poultry contributes also to the national gross domestic product (GDP), in the provision of gainful employment and income to a sizeable proportion of the population. The high demand for poultry eggs; the success of exotic breeds and the ease of mastering the techniques of layer production, among other factors, make poultry business a very attractive venture (Sani, *et al.*, 2000). Poultry eggs has also attained industrial importance as a major ingredient in the baking of confectioneries and the use of the binding (Mayhew and Penny, 2007). In addition, if poultry egg production is properly harnessed it can serve as a source of foreign exchange earnings. The production of eggs has been the factor of the greatest economic importance in poultry production (Morley, 2008). Poultry egg is composed largely of protein and lipids (Fatty substances), two of the most important dietary essentials. The egg contains various minerals and nearly all the known vitamins, thiamine and riboflavin being present in



adequate important amount (Oluyemi and Roberts, 2000). Eggs generally contributed about 3.5g of the total 7.2g animal protein required for individual dietary need per day. The demand for poultry eggs will continue to increase due to rapid population growth. Large numbers of marketing function in Nigeria are inadequate thus limiting the responsiveness of marketing processes (Umeh *et al*, 2004). All these poses severe limitation to the growth and development of this agricultural sub-sector. FAO (2003), Identified that lack of marketing information in domestic markets in most African countries and transmission of information within the continent are considered a major obstacle to increase intra-African trade in agricultural products. The demand and supply deficits still persist with low economic potentials. In spite of the significance of the poultry industry to the national economy, poultry farms have been facing various problems. Poultry production in general is constrained due to inadequate capital base, inefficient management, disease outbreaks, poor housing, marketing constraints, etc. (Alabi *et al*, 2000). In a dynamic economy, the economic viability is dependent on market conditions, including those that encompass broad consumer and social demands. Furthermore, the economic and market implication of different production practices affects the poultry egg industry's contribution to employment, nutrition and consumer satisfaction. The socio-economic importance of the diversified products derived from poultry farming are enormous e.g eggs, meat and the dropping which are further used to improve soil fertility. Moreover, the marketability of poultry birds and it's by products are more efficient when compared to other products of livestock farming owing to its affordability. This study explores the marketing systems of poultry egg farmers in the study area. The findings of this research will be of immense benefit to poultry farmers and agriculturist who would be better informed on the profitability of marketing poultry eggs in the study area. Therefore, the broad objective of this study was to examine the marketing systems among poultry egg traders in Jos, Plateau state, Nigeria, while the specific objectives are to:

1. identify poultry egg marketing channels;
2. ascertain the typology of poultry egg grading among respondents; and
3. identify the factors mitigating the efficiency of poultry egg marketing in the study area.

2.Methodology:

2.1. Study Area:

The study was conducted in Jos North Local Government Area (LGA) of Plateau state. It is one of the seventeen (17) Local Government Areas (LGAs) of Plateau state. It is located between longitude latitude 80⁰.22'N and longitude 100⁰.24'E. The LGA has a near temperate climate though located in the tropics, with an average temperature of between 18⁰C– 27⁰C, with an altitude of about 1,500meters above mean sea level and an annual rainfall of between 1317.5mm – 1500mm range per annum (FAO, 2007).

2.2. Sampling Procedure:

A double (2) stage sampling technique was used in selecting the respondents for this study. The first stage involved a purposive selection of three (3) major agro commodity markets in Jos North Local Government Area (LGA), namely; (Kasuwan kaji, Satellite

market, and Terminus market). The second stage involved the selection of 30 poultry egg traders from the selected markets using simple random sampling technique.

2.3. Data collection:

Primary data were collected through the use of structured questionnaires designed in line with the objectives of the study.

2.4. Analytical technique:

Data collected were analyzed using descriptive statistics (frequency counts and percentages).

3. Results and Discussion:

3.1. Marketing Channels:

Market Channels	Frequency	Percentage
Commission agents	10	11.1
Retailers	53	58.9
Wholesalers	2	2.2
Households	25	27.8

Table 1: Distribution Based on Poultry Egg Marketing Channel

Source: Field survey, 2013.

Table 1 revealed that the most prevalent market channel for poultry egg traders in the selected market was directly to retailers (58.9%). Households (27.8%) and commission agents (11.1%) were also significant market channels for poultry egg traders in the study area. Marketing channel is a business structure of interdependent organizations that extend from the point of production to the final consumers. This result corroborates with Adegeye and Dithol (2005); Umeh *et al*. (2004) who posited similar results in their respective study on agro commodity marketing.

3.2. Methods of Poultry Egg Grading:

Method of grading	Frequency	Percentage
Size	60	66.7
Weight	25	27.8
Color	5	5.5

Table 2: Distribution Based on the Method of Poultry Egg Grading

Source: filed survey, 2013

Table 2 revealed the distribution of respondents based on their methods of grading poultry eggs; it was revealed that most (66.7%) of the respondents graded their eggs based on size; 27.8% was based on the weight of the eggs, while 5.5% based their method of poultry egg grading on the color of egg shells. Grading is the separation of product in a uniform lot and the establishment of new product of uniform lot based on certain quality specification. This result corroborates with Umeh *et al*. (2004); Nani (2004); Sani *et al*. (2000) who posited similar results in their respective studies on agro commodity marketing and poultry production.



3.3. Constraints of Poultry Egg Marketing:

Constraints	Frequency*	Percentage (%)
Inadequate storage facilities	45	50
Price instability	53	58.9
Losses due to breakage/ physical damage	26	28.9
Cost of transportation	39	43.3
Inefficient marketing structure	58	64.4
Supply deficits	15	16.7
Financial constraints	64	71.1
Problem of market accessibility	37	41.1

Table 3: Distribution Based on the Constraints of Poultry Egg Marketing

Source: field survey, 2013; Multiple response = *

Table 3 revealed the distribution of respondents based on their marketing constraints. Most (71.1%) of the respondents encountered financial constraints; inefficient marketing structure (64.4%); price instability (58.9%); inadequate storage facilities (50%); cost of transportation (43.3%); market accessibility (41.1%); losses due to breakage/transit damage (40%) and supply deficits (16.7%). All the constraints identified by the respondents significantly affected poultry egg marketing in the study area. This result corroborates with FAO (2003) who posited similar agro commodity marketing constraints.

4. Conclusion and Recommendations:

This study analyzed the marketing system of poultry egg traders in Jos North, Plateau State, Nigeria. The result identified marketing channels for poultry egg traders in the study area. It also identified methods adopted by the respondents in grading their eggs. Furthermore, all constraints identified by the respondents were very significant and thus affected poultry egg marketing processes. From the result obtained, recommendations are made in order to improve the marketing system of poultry egg traders; thus, the following were suggested;

1. Financial institutions should be are implored to make agricultural credit more readily available at a lower interest to poultry farmers to enable them to invest more in their poultry enterprise;
2. Establishment of well-structured and accessible markets with requisite amenities;
3. Formulation of policies that facilitate fair agro commodity price modulations;
4. Adoption of modern facilities that will mitigate losses due to breakage, poor storage and transit damages.
5. Improving transportation networks and regulating transportation fares for agro commodities should be advocated;
6. Policies that facilitate formation of cooperatives among poultry egg traders should be strongly encouraged;
7. Poultry egg traders need to be sensitized on efficient methods of carrying out their market functions; and
8. Formulation of policies that mitigate poultry egg supply deficits.

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Author A designed the study and handled the computation of the statistical analysis. Author B and Author C wrote the protocol and first draft of the manuscript. Author D managed the literature searches. All authors read and approved the final manuscript.

References:

1. Adegbola, T. A. (2005). *Animal Science*, Longman Group Uk Ltd, Pp. 77-89.
2. Adegeye, A.J. and Dithol, J.S. (2005). *Essential Agriculture Economics*. Impact publishers Nigeria limited, Ibadan, 245pp.
3. Aihonsu, J.O.Y and Sunmola, M.A. (1999). *Optimal laying period for profitable and sustainable egg production*. Fab Publications, Pp. 28-40
4. Alabi, R.A., and Isah, A.O. (2002). Poultry production constraint. The case of Esan west L.G.A of Edo state, Nigeria. *African of livestock Extensional*, 1: 58 – 6.
5. Alabi, R.A, Tariuwa, I.O, Onemolease, P.E A, Isha, T.A, Esobhawan, A.O and Ovisogie, D.L. (2000). *Risk management in poultry enterprises in Edo state through insurance scheme*, Proceedings of 5th annual ASAN conference Pp.182 – 184.
6. Anyanwu, P.O. (2006). *Agriculture for school certificate 4th edition*. African Publisher Limited. Pp. 291 – 311.
7. Food and Agricultural Organization (FAO) (2003). *Marketing Problems and Improvement Programme*, Ibadan: wisdom publication Ltd. Pp. 25.
8. Food and Agricultural Organization (FAO) (2007). *Statistical Database Food and Agriculture Organization*, production year Book, Rome, Italy.
9. Mayhew, S., and Penny, A. (2007). *Tropical and subtropical foods*. Macmillan publishers Ltd, London 291 Pp.
10. Morley, A.J.U. (2008). *Poultry husbandry*, 3rd edition, Tata McGraw-Hill, publisher, New Delhi, India 526Pp.
11. Nani,J.R. (2005). Analysis of smoked Fish marketing in Maiduguri Metropolitan Council; Borno State, *Nigeria Journal of Arid Zone Economy*, 2(1): 12-27
12. Obioha, F.C. (2005): *A guide to poultry production in the tropics*: Acena publishers, Enugu, Pp. 33-38.
13. Oluyemi, J.A., and Roberts, F.A. (2000). *Poultry Production in Warm Wet Climate*. Macmillan publishers limited London, 179 Pp.
14. Sani, R.M, Tahir, I. and Kushwaha, S. (2000). Economic of poultry production in Bauchi state. A case study of Bauchi local government area, *Nigeria Journal of animal production*, 27(1): 109 – 113.
15. Umeh, J.C, Lawal, W.L., and Ater, P.I. (2004). *Strategies Marketing Agricultural Produce in Nigeria*. Proceedings of the 38th Annual conference of Agricultural Society of Nigeria (ASN) held at the college of Agriculture, Lafia, Nassarawa state Oct. 17-21, 2004 Pp. 53-58.