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# MARKETING MARGIN DIFFERENTIALS AT THREE LEVELS OF THE EGG DISTRIBUTIVE CHAIN IN IBADAN METROPOLIS

MAFIMISEBI, T.E., OKUNMADEWA, F.Y. AND WRIGHT, A.D.
Department of Agricultural Economics, University of Ibadan.

**Target Audience:** Policy makers, existing egg marketers, prospective traders egg consumers.

## ABSTRACT

**Marketing margin analysis helps to detect the level of marketing at which excessive and unjustifiable margins are charged by market intermediaries. This study assessed and compared marketing and gross margins with corresponding marketing functions performed by three classes of poultry egg traders in Ibadan Metropolis. Analysis of the socio-demographic characteristics of traders revealed that egg marketing is a low capital venture, dominated by young females and the capital for operating the venture was procured from personal and informal credit sources. Empirical analysis showed that a marketing margin of ₦182.68, which constituted 95.9% of producer price, was added to the farm-gate price of a crate of eggs en route the final consumers. This high marketing margin was attributable to the high facilitating costs and risk involved in the egg trade. The average sales price per crate was ₦245.05, ₦306.08 and ₦373.18 by the wholesalers, sub-wholesalers and retailers respectively. There was an almost even distribution of margins among the three groups of traders. The profit per crate were ₦27.81, ₦32.91 and ₦36.23 while the returns on capital invested in marketing were 12.80%, 12.05% and 10.75% respectively for wholesalers, sub-wholesalers and retailers. The study concludes that there is no evidence of exploitation among these key players in the marketing chain. However, since the sub-wholesalers and retailers perform the same functions, it is suggested that the sub-wholesalers be eliminated from the chain of distribution by empowering retailers financially through trading loans so that they can sell larger quantities of eggs. This will shorten the distributive chain and result in lower final retail price.**

**Key words:** Marketing margins, egg intermediaries, returns, Ibadan Metropolis.

## DESCRIPTION OF PROBLEM

The animal protein intake in Nigeria is said to be grossly inadequate. While the recommended level stands at 35.0 grammes per caput per day, the actual quantity consumed is about 10.0grammes (1,2,3,4). This insufficient animal protein consumption is of great concern to nutritionists, animal scientists, health

specialists as well as government owing to the established fact that animal protein has significant influence on health, reproduction, work efficiency, mental capacity and general development of humans especially infants, children and women. Poultry egg is a popular protein source in Nigeria due to the high nutritive value and ease of preparation for eating which can be simply by boiling or frying. Each of these methods of preparation takes only a few minutes. Closely related to the high nutritive value of eggs is the fact that its net protein utilization (NPU) is 100% (5). This means that eggs can be completely digested and assimilated when eaten.

Poultry egg has been found to contain 13% protein, 12% fats and negligible amount of carbohydrates (6). It is reputed for its high amount of calcium, phosphorous, potassium, vitamins A, B-Complex and D. Egg proteins are so well balanced in amino acids culminating in the very high NPU. This very high NPU is the major reason why egg proteins are used as standards in nutrition assessments. In fact, egg proteins is the best natural protein available being far better than that of meat or milk (6). Apart from its enviable role in human nutrition, eggs have other varied uses. It is an excellent raw material in baking and food drink industries and in vaccine production where it is used as a propagation medium for viruses. Also, egg production and allied poultry products act as supplementary enterprises, which provide additional sources of income for the sustenance of families during poor crop harvests and gestation period of tree crops. As an internal trade item, it is traded between towns on one hand and between towns and rural areas on the other. On a relatively small scale, eggs are traded between countries. Finally, the poultry industry offers employment opportunities for a fairly large population of attendants, skilled and unskilled labourers, veterinarians, animal health scientists and market women. Therefore the production, marketing and continuous arbitraging in such a widely consumed product, keep many people employed and provided with the purchasing power to meet their daily needs (7).

The quantity of a product consumed is strongly affected by the price of the product among a myriads of factors. Marketing is a value-adding activity that provides place, time and form utility. The final retail price of a product almost often depends on the marketing functions performed in getting it across to the final consumers from the producers. The retail price of egg is steadily increasing in Nigeria (8) and this would serve as a disincentive to continued consumption of animal proteins. There is a great danger inherent in this when it is remembered that animal protein consumption in the country already trails far behind internationally recommended level. Market intermediaries are often blamed for the exorbitant retail prices of agricultural food products as they are alleged to charge excessive and unjustifiable marketing margins compared with the actual monetary worth of the marketing functions carried out by them

(9,10,11). This study then assesses the marketing margin and profit accruable to market intermediaries involved in egg distribution. The profit is compared with capital invested and other marketing functions performed by each market intermediary. The analysis reveals the level(s) of marketing at which exploitation occurs. The result of the study will help government take remedial action which will protect consumers and other stakeholders in egg marketing from undue exploitation so that social welfare can be enhanced. This is particularly necessary in arresting the escalating price of egg which is a widely consumed source of high quality natural proteins. The study is justified by the present growing concern in consumerism.

## MATERIALS AND METHODS

### Source of Data

The data for the study was obtained from primary source. Data were collected from market intermediaries by means of questionnaires for each group. A reconnaissance survey prior to questionnaire administration showed that three intermediaries are involved in egg marketing. The factors used in classifying them were quantity of eggs handled per month and the mode of sale. The market intermediaries were wholesalers, sub-wholesalers and retailers.[1] Data collected from forty (40) wholesalers, 40 sub-wholesalers and sixty (60) retailers in five markets - Bodija, Sango, Oja-Oba, Orita-Challenge and Alakia were used in the analysis. Random sampling technique was used in the selection of respondents. Five (5) wholesalers[2], eight (8) sub-wholesalers and twelve (12) retailers were sampled per market location.

### Method of Data Analysis

Simple statistical tools such as tables, percentages and frequencies were used to summarise the socio-economic characteristics of egg marketers. Cost component analysis was used to explain the relative importance of each item of marketing expenditure. Gross and marketing margins and rate of returns to investment were used to capture profitability of the trade at the observed levels of egg distribution. The following arithmetical relations are used in this study.

Gross Margin (GM) = Total Revenue - Total Marketing Cost (1)

Absolute Marketing Margin (AMM) = Retail Price - Purchase Price (2)

$$\text{Returns on Investment (ROI)} = \frac{\text{Total Profit}}{\text{Capital invested}} \times \frac{100}{1} \quad (3)$$

[1] For the purpose of this study, a wholesaler is an intermediary that displayed 80 crates of eggs and more for sale and sells in crates while a sub-wholesalers offered between 10-79 crates for sale and sells in crates, half a crate or in pieces. A retailer is the trader displaying less than ten (10) crates for sale and sells pieces of both fresh and cooked eggs. An estimated one thousand five hundred (1500) marketing intermediaries were involved in egg distribution in the sampled markets.

[2] Fifteen (15) of the wholesalers were interviewed at the entrance of large-scale poultry farms in Ibadan while waiting to receive their order of eggs. This is because they have no stalls but deliver eggs directly to the customers at home or in the market. This number added to the 25 wholesalers interviewed in the markets gave a total of 40.

## RESULTS AND DISCUSSION

The socio-economic characteristics of egg market intermediaries are shown in Table 1. Women dominate egg marketing. Only about 20.0%, 15.0% and 10.0% of respondents were males in the wholesale, sub-wholesale and retail levels of egg distribution respectively. On the average, just 15.0% of marketers were males. This findings concurs with reports by earlier studies that marketing of most agricultural produce is almost exclusive to women (12, 13, 14). Also majority of the sellers are in zthe active age bracket of 20-49 years where both the strength for hard work and urge for increased income generation are highest. Most of the market intermediaries are married. Being married connotes having responsibility or obligations to perform and involvement in egg distribution may yield proceeds to meet the financial needs of their families. All the wholesalers belong to the Association of Egg Traders while only 70.0% of sub-wholesalers are members of the Association. The association provides low-interest loans to active members. Just about 50.0% of retailers are members of the egg traders' association. This suggests that there is more tendency to join association as the volume of eggs handled (and consequently capital used in running business) increases. Half of the wholesalers sampled have their business capital within the range of ₦10,000 - ₦19,000 while the other half commit ₦20,000 and above to the egg trade. This range of capital probably permits the large quantity of eggs handled by the wholesalers. Only 45.0% of sub-wholesalers have their business capital within the range of ₦10,000-₦19,000. Another 45.0% of sub-wholesalers trade with ₦5000 - ₦9,000. A large proportion (90.0%) of retailers have their business capital lying between ₦1000 - ₦9000. The capital involved in the egg trade is then a strong determinant of the stage at which a marketer will operate in the egg marketing chain.

Table 1 also shows the distribution of traders according to some other socio-economic variables. Majority of the traders have been engaged in the egg trade for less than ten (10) years. Only 25.0%, 45.0% and 10.0% of wholesalers, sub-wholesalers and retailers respectively have been involved in the business for upward of 10 years. Investigation of the degree of specialization in the trade shows that all the wholesalers deal in eggs alone while 70.0% of the sub-wholesalers sell other commodities alongside eggs. No retailer was found dealing exclusively in eggs. About 35.0% of retailers combine trade in eggs with a few other items while another 65.0% sell eggs and a large number of other commodities. The degree of specialization in the egg trade then seems to increase the nearer the market intermediary is to the producer. The difference in the degree of specialization may be responsible for the wide disparity in the volume of capital committed to the egg marketing business. The relationship seems to be that the lower the degree of specialization, the lower the amount of capital invested in the venture.

## Table 1: Socio-Economic characteristics of egg marketers

**Distribution of Respondents by Sex**

| Sex | Wholesaler | | Sub-Wholesalers | | Retailers | |
|---|---|---|---|---|---|---|
| | No. | % | No | % | No | % |
| Male | 08 | 20.00 | 06 | 15.00 | 06 | 10.00 |
| Female | 32 | 80.00 | 34 | 85.00 | 54 | 90.00 |
| Total | 40 | 100.00 | 40 | 100.00 | 60 | 100.00 |

**Age Distribution of Respondents**

| Age | Wholesalers | | Sub-Wholesalers | | Retailers | |
|---|---|---|---|---|---|---|
| | No. | % | No. | % | No. | % |
| < 20 Years | - | - | 02 | 5.00 | - | - |
| 20-29 Years | - | - | 08 | 20.00 | 17 | 28.33 |
| 30-39 Years | 20 | 50.00 | 14 | 35.00 | 11 | 18.33 |
| 40-49 Years | 18 | 45.00 | 10 | 25.00 | 26 | 43.33 |
| >50 Years | 02 | 5.00 | 06 | 15.00 | 06 | 10.00 |
| Total | 40 | 100.00 | 40 | 100.00 | 60 | 100.00 |

**Marital Status of Respondents**

| Marital Status | Wholesaler | | Sub-Wholesalers | | Retailers | |
|---|---|---|---|---|---|---|
| | No. | % | No. | % | No. | % |
| Single | - | - | 08 | 20.00 | 17 | 28.33 |
| Married | 38 | 95.00 | 32 | 80.00 | 37 | 61.67 |
| Divorced | 02 | 5.0 | - | - | - | - |
| Widowed | - | - | - | - | 06 | 10.00 |
| Total | 40 | 100.00 | 40 | 100.00 | 60 | 100.00 |

**Membership of Market Association**

| Response | Wholesalers | | Sub-Wholesalers | | Retailers | |
|---|---|---|---|---|---|---|
| | No. | % | No. | % | No. | % |
| Yes | 40 | 100.00 | 28 | 70.00 | 28 | 47.50 |
| No | 0 | - | 12 | 30.00 | 32 | 52.5 |
| Total | 40 | 100.00 | 40 | 100.00 | 60 | 100.00 |

**Capital Involved in the Egg Business ('000)**

| Capital | Wholesalers | | Sub-Wholesalers | | Retailers | |
|---|---|---|---|---|---|---|
| | No. | % | No. | % | No. | % |
| 1-4 | - | - | - | - | 34 | 56.67 |
| 5-9 | - | - | 18 | 45.00 | 20 | 33.33 |
| 10-14 | 08 | 20.00 | 08 | 20.00 | 06 | 10.00 |
| 15-19 | 12 | 30.00 | 10 | 25.00 | - | - |
| 20-above | 20 | 50.00 | 04 | 10.00 | - | - |
| Total | 40 | 100.00 | 40 | 100.00 | 60 | 100.00 |

Source: Field Survey Data, 2001.

Number of Years Experience

| Year | Wholesalers | | Sub-Wholesalers | | Retailers | |
|---|---|---|---|---|---|---|
| | No. | % | No. | % | No. | % |
| 1-4 | 08 | 20.00 | 06 | 15.00 | 24 | 40.00 |
| 5-9 | 22 | 55.00 | 16 | 40.00 | 30 | 50.00 |
| 10-above | 10 | 25.00 | 18 | 45.00 | 06 | 10.00 |
| Total | 40 | 100.00 | 40 | 100.00 | 60 | 100.00 |

Degree of Specialization

| Degree | Wholesalers | | Sub-Wholesalers | | Retailers | |
|---|---|---|---|---|---|---|
| | No. | % | No. | % | No. | % |
| Eggs alone | 40 | 100.00 | 12 | 30.00 | - | - |
| Eggs + Few other items | - | - | 22 | 55.00 | 21 | 35.00 |
| Eggs+Many other items | - | | 06 | 15.00 | 39 | 65.00 |
| Total | 40 | 100.00 | 40 | 100.00 | 60 | 100.00 |

F requency of Supply of Eggs to Traders

| Period | Wholesalers | | Sub-Wholesalers | | Retailers | |
|---|---|---|---|---|---|---|
| | No. | % | No. | % | No. | % |
| Daily - | - | - | - | - | - | |
| Once a week | 23 | 57.50 | 20 | 50.00 | 52 | 86.67 |
| Twice a week | 10 | 25.00 | 11 | 27.50 | 08 | 13.33 |
| Once a month | 07 | 17.50 | 09 | 22.50 | - | - |
| Total | 40 | 100.00 | 40 | 100.00 | 60 | 100.00 |

Source of Initial Business Capital

| Source | Wholesalers | | Sub-Wholesalers | | Retailers | |
|---|---|---|---|---|---|---|
| | No. | % | No. | % | No. | % |
| Personal Alone | 19 | 47.50 | 28 | 70.00 | 55 | 91.67 |
| Personal + Informal borrowing | 21 | 52.50 | 12 | 30.00 | 05 | 8.33 |
| Bank Loan | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 40 | 100.00 | 40 | 100.00 | 60 | 100.00 |

Point of Sale in the Market

| Point of Sale | Wholesalers | | Sub-Wholesalers | | Retailers | |
|---|---|---|---|---|---|---|
| | No. | % | No. | % | No. | % |
| No stalls (sell directly to customers) | 15 | 37.50 | - | - | - | - |
| Own stalls | 25 | 62.50 | 18 | 45.00 | 10 | 16.67 |
| Open space | - | 0 | 22 | 55.00 | 50 | 83.33 |
| Total | 40 | 100.00 | 40 | 100.00 | 60 | 100.00 |

Source: Survey Data, 2001.

A larger proportion of the three categories of egg marketers receive supplies of eggs from the supplying source once a week. A minor proportion of 25.0%, 27.5% and 13.3% of wholesalers, sub-wholesalers and retailers respectively order for and receive eggs twice a week. A few wholesalers and sub-wholesalers take supplies of ordered eggs once in a month. There was no retailer receiving supplies once in a month. This may be as a result of the fact that a retailer orders for a small quantity each time probably because of capital constraints as eggs are not the only items they sell. Such small stocks can be easily exhausted by customers. Most retailers order for eggs each week and twice a week because they exhaust their stock fast (Table 1).

Another interesting finding is that most of the traders obtained their initial capital outlay from either personal source or informal credit institutions such as friends, relatives and co-operative societies. While 47.5%, 70.0% and 91.67% of wholesalers, sub-wholesalers and retailers respectively raised their initial business capital from personal source, none of the traders used bank loans to run business or argument business capital. The proportion of traders raising money from personal source increases as the volume of capital required to run the business becomes smaller. The findings here corroborate reports from previous studies that formal credit institutions are inactive in credit advancement to small and medium enterprises (SMEs) in Africa (15). A small proportion (37.5%) of wholesalers do not owe market stalls. This was not because they could not afford it. Rather, such wholesalers obtain supplies from the producers and deliver directly to customers (sub-wholesalers and retailers) in their houses or market stalls or any point where they sell in the market. However, a larger proportion of wholesalers own lock-up stalls and operate in markets. Only 45% of sub-wholesalers own lock-up stalls while 55% do not and they sell in the open or under make-shift sheds. Majority of retailers (83.33%) sell in the open or under makeshift sheds owing to inability to afford payment for a stall or failure to secure one during the stall allocation process.

**Component Analysis Of Monthly Marketing Expenditure By Egg Traders**

Table 2 shows the cost component analysis of the marketing expenditure by the three categories of traders. Cost of purchasing eggs for resale takes the lion share of total marketing cost. The item carried 87.69%, 89.70% and 90.83% of total marketing costs for wholesalers, sub-wholesalers and retailers respectively while the balance in each case represents the cost of performing facilitating functions. If the cost of purchasing eggs is discountenanced, then, transportation cost is the highest item of marketing expenditure as it alone accounted for 44.2%, 52.2% and 54.4% of facilitating costs by the wholesalers, sub-wholesalers and retailers respectively. The results obtained is comparable to that got for sun-dried meat trade by earlier researchers (16,17). This study shows that transportation cost decreases in relation to total marketing cost as

the volume of egg handled increases. There is therefore a form of economies of scale associated with transporting large quantity of merchandise compared with small quantity. This may lead to differences in returns to marketing functions among the various categories of egg traders. The cost of eggs and egg transportation may therefore be critical factors in determining profitability of the trade. In all cases, depreciation cost on tables, egg crates, bowls and trays accounted for the smallest proportion of marketing expenditure being just 0.62% on the average for all the sellers.

**Table 2: Monthly marketing expenditure by egg traders**

| | Item of Expenditure | Wholesalers | | Sub-Wholesalers | | Retailers | |
|---|---|---|---|---|---|---|---|
| | | Amount (₦) | % | Amount (₦) | % | Amount (₦) | % |
| 1 | Purchase of eggs | 737,616.60 | 87.69 | 533,718.90 | 89.70 | 514,214.40 | 90.83 |
| 2 | Transportation | 45,720.00 | 5.44 | 31,967.30 | 5.37 | 28,200.00 | 4.98 |
| 3 | Depreciation of tables, crates, bowls and trays | 3,081.66 | 0.37 | 2,563.60 | 0.43 | 6,029.50 | 1.07 |
| 4 | Depreciation of vehicles | 38,624.50 | 4.59 | 19,070.09 | 3.21 | — | — |
| 5 | Cost of shops/Stalls and other market levies | 16,100.00 | 1.91 | 7,000.00 | 1.18 | 13,787.00 | 2.44 |
| 6 | Cost of energy + water (used in boiling eggs) | — | — | 652.72 | 0.11 | 3,840.00 | 0.68 |
| Total | | 841,142.76 | 100.00 | 594,972.61 | 100.00 | 566,070.90 | 100.00 |

Source: Survey Data, 2001.

**Profitability, Marketing Margins and Returns on Investment.**

The gross margin, total profit and returns on investment in the egg trade in a one month period are shown in Table 3. The total number of egg crates handled by the wholesalers, sub-wholesalers and retailers were 3872, 2178 and 1680 respectively. Even though, there are three grades of eggs based on size, the average sales price for the three egg size categories was used in the analysis presented in Table 3. The average sales price per crate of eggs was ₦245.05, ₦306.08 and ₦373.18 for wholesalers, sub-wholesalers and retailers. [3]Since the producers sell a crate of eggs to the wholesalers at ₦190.50, it then means that wholesalers, sub-wholesalers and retailers added margins of ₦54.55, ₦61.03 and ₦67.10 per crate respectively. The wholesalers added the lowest market margin while the retailers added the highest. The reasons why the sub-wholesalers and retailers added the highest margins to the purchase price of a crate of eggs may be attributable to the fact that they have lower rates of sales than the wholesalers and therefore handle smaller quantities. In addition to this, a few sub-wholesalers and all retailers offer boiled eggs for sale alongside fresh ones. Even though, there is very little extra revenue associated with boiling

eggs for sale, it reduces the tendency of loss of eggs through spoilage and breakage. However, the higher rate of turnover enjoyed by the wholesalers gave them an edge over both sub-wholesalers and retailers in terms of total profit per month. When profitability was examined in terms of profit per crate, the retailers got the highest at ₦36.23 while wholesalers and sub-wholesalers received ₦27.81 and ₦32.91. The reason for differences in profit per crate is probably owing to the fact that wholesalers and sub-wholesalers sell in bulk which most often goes with granting of trade discount. This will automatically depress profit margin. The smaller profit margins of the wholesalers and sub-wholesalers compared with the retailers are more than compensated for by larger quantities of eggs sold during the same period. For instance while the retailers sold 1680 crates of eggs in one month, the corresponding quantities for the wholesalers and sub-wholesalers were 3872 and 2178 crates.

Profitability was also expressed as returns to marketing activities per ₦100 invested in the egg trade. Using this method, ₦12.80, ₦12.05 and ₦10.75 accrued to wholesalers, sub-wholesalers and retailers respectively. Therefore, investment by the wholesaler is the most profitable probably because it is more rapidly able to turn stocks over. The rate of returns on investment obtained is comparable to that obtained by marketers of other agricultural products as reported by some researchers (9, 16, 17, 18, 19, 20) and is not considered too high for any egg traders category.

**Table 3: Profit Accruable to Each Category of Egg Marketers**

| Category of Traders | Number of Crates handled per month | Revenue Per crate (₦) | Total Revenue per month (₦) | Total Profit per per month (₦) | Rate of Return on Investment (%) |
|---|---|---|---|---|---|
| Wholesalers | 3872 | 245.05 | 948,833.60 | 107,690.84 | 12.80 |
| Sub-Wholesalers | 2178 | 306.08 | 666,642.24 | 71,669.53 | 12.05 |
| Retailers 1680 | 373.18 | 626,942.24 | 60,871.50 | 10.75 | |

Source: Author's Calculation

**Distribution of Proceeds of Marketing Vis-à-vis Marketing Functions.**

It is often desired in marketing studies to assess marketing functions by various intermediaries alongside their share of gross profit. The average sales price for a crate of egg from the producers and the distribution of marketing margins by the market intermediaries are presented in Table 4. The marketing margin on a crate of eggs from the farm-gate to the final consumers was ₦182.68 which amounted to 95.90% of producer price. This indicates that cost of production and marketing expenses are almost equal and the finding is in line with that by Timmer (21) and Goeff and Bennet (22) that the cost of agricultural marketing services is very high in developing countries. The profit margin of ₦96.95 was

**Table 4: Distribution of marketing margins by intermediaries**

| Producer Price per Crate | Wholesaler's Price per Crate (₦) | Sub-wholesaler's Price per Crate (₦) | Retailer's per crate (₦) |
|---|---|---|---|
| 190.50 | 245.05 | 306.08 | 373.18 |
| Share of Marketing Margin (%) | 29.86 | 33.41 | 36.73 |

Source: Author's Calculations

distributed as follows; wholesalers 28.68%, sub-wholesalers 33.95% and retailers 37.37%. Judging from the marketing functions performed, there seems to be no evidence of any group of market intermediary getting excessive margins. This conclusion is supported by the reasoning that a market system where profit margins increase as the volume of sales per unit time decreases can be seen as fair (18). For example, the 37.37% got by retailers could, on a superficial consideration, be interpreted as high vis-à-vis other intermediaries. However, when one considers the average number of eggs sold by a retailer per day (which is about half a crate), giving a profit of about ₦19.12 per day, one will understand that the retailers' margin is actually low. In comparison, the profit per day for wholesalers and sub-wholesalers were ₦89.73 and ₦59.73 as they sell on the average 3.23 and 1.82 crates of eggs per day. If however the sub-wholesalers can be eliminated from the chain of distribution, delivered price will be much reduced and final consumers would pay less than what they are at present paying.

## CONCLUSION AND APPLICATIONS

The study concludes as follows:

1. Egg marketing is a female-dominated, low capital venture with majority of traders procuring business capital mainly from personal or informal credit sources. Only a few market intermediaries have been involved in the egg trade for ten years and above. Specialization in the egg trade increases as the volume of capital committed to the trade increases. Most traders receive supplies of eggs once a week.
2. The single most expensive items of marketing expenditure for all categories of traders was cost of purchasing eggs as it stood at an average of 89.41% for all the traders. Transportation cost ranked second. Considering facilitating cost alone, cost of transporting eggs accounted for an average of 50.3%. The costs of purchase and transportation of eggs are therefore critical items in the delivered price of eggs in the study area.
3. The average number of egg crates handled per month by wholesalers, sub-wholesalers and retailers was 3872, 2178 and 1680 while the average

sales price per crate was ₦245.05, ₦306.08 and ₦373.18. The profit per crate by the wholesalers, sub-wholesalers and retailers were ₦27.81, ₦32.91 and ₦36.23 while the returns on capital invested were 12.80%, 12.05% and 10.75% respectively.

4. The gross margin on a crate of eggs en route the consumers from the farm-gate was ₦96.95. The gross margin was distributed as follows: wholesalers 28.68%, sub-wholesalers 33.95% and retailers 37.37%. A retailer sells an average of half a crate of eggs per day while a wholesaler and sub-wholesaler sells 3.23 and 1.82 crates per day in the study area.
5. A profit per day of ₦19.12, ₦59.73 and ₦89.73 accrued to retailers, sub-wholesalers and wholesalers respectively.
6. Judging from the marketing functions performed by each intermediary, there is no evidence of any intermediary receiving excessive profit margin, which exploits consumers and other stakeholders in the egg business.
7. Since the sub-wholesalers and retailers perform similar functions, it is suggested that sub-wholesalers be eliminated from the chain of distribution. To enable the retailers buy eggs in quantities characterized of sub-wholesalers, small unsecured loans of the Oyo State Government should be extended to them since capital invested in the egg trade determines the level of the marketing chain at which a trader operates. This will lead to shortening of the distributive chain and reduction in the final retail price of eggs. Final consumers will then pay less than what they are paying at present and buy more eggs, ceteris paribus.

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