ANALYSIS OF MARKETING MARGIN AND NET INCOME FOR LEAFY VEGETABLES IN KOGI STATE, NIGERIA

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Abstract
The study was carried out to describe the marketing margin, determine the cost and return for leafy vegetable marketing and identify the problems/constraints associated with leafy vegetable marketing in Kogi State. Multi stage sampling technique was used to select a total of 160 respondents which comprises of wholesalers and retailers. Marketing margin analysis, net income analysis and Likert type scale were used to analyse the data. The results showed that wholesaler's recorded ? 274.99 (64%) margin and the retailers recorded ? 479.9 (38%) margin, this proved that leafy vegetable marketing is a profitable business for both retailers and wholesalers. The result forthe cost and return shows that the average total revenue per wholesaler per month was ? 49,513, total cost ? 22,805.7 and a net profit of ? 26,707.3 and ? 30,246, ? 16,592 and ? 13,654 for total revenue, total cost, and net profit for retailer respectively, which also showed that marketing leafy vegetable is very profitable.High perishability, inadequate storage facility, high transportation cost and poor road network, were identified as the major constraints/problems associated with marketing leafy vegetable. The study therefore, recommends thatGovernment should provide storage facilities for the marketers and also provide loans with little or no interest for the marketers to increase their purchase thereby leading to improvement in their livelihood.

Keywords: fluted pumpkin, spinach, marketing, marketers.

INTRODUCTION

Agriculture is an important sector in most developing countries as increase in agricultural productivity depends heavily on its marketability so as to improve its vital roles in the national economy. Usman, Omoayena, andv Ishaya *(2006)* described marketing as the process of planning and executing the conception, pricing, promotion and distribution of ideas, products and services to create exchange that will satisfy the needs of individuals and organization. Good marketing system reduces the marketing costs, ensures high level of income to the producers, provides good quality agricultural produce at affordable price to the consumers and minimizes the number of intermediaries (Raj, Chauban, and Sharma, 2007).

Agricultural marketing is therefore defined as the performance of all the activities

involved in the flow of agricultural products and services from the initial point of agricultural production until they reach the hands of the ultimate consumers (Olomola, 2013). It is interested in everything that happens to crops after it leaves the farm-gate; making decisions, taking actions and bearing the responsibility of the action. Agricultural marketing also articulates all processes that take place from when the farmer plans to meet specified demand and market prospect to when he finally get it to the consumer.

Vegetable is one of the important and extensively cultivated food and income generating crops in many parts of Africa (Adebisi, Adeoye and Olajide, 2011). According to Mohammed (2002) vegetables can give high yield per unit area of land and hence generate high income for the farmers.Vegetable production constitutes an important part of Nigeria's economy as today's horticultural crops contribute about 25% of the total agricultural exports of the country (Thamburaj and Narenda, 2001).Vegetables are perishable products and may last effectively for only 24 hours, after which they dry up and become unusable. Therefore, for distribution system to be efficient, the product needs to get to the final users within 24 hours after the harvest by the farmers.

The cost of operations are heighten as wholesalers travel almost every day from their locations to the river basin where the farmers are and also travel to the market where the retailers are waiting for the product. It is the responsibility of retailers to transport the product to the market where the product is sold to the ultimate users; the challenges facing the middlemen are how to hold an optimal level of stock on a daily basis. This is particularly so because there is the problem of surplus (gap from unsold) and Problem of shortage (gap from demand), the farmers have also successfully passed the losses of the unsold items unto the middlemen.This study therefore determined the marketing margin for leafy vegetables, determine the cost and return for leafy vegetable marketing, and identified the problems associated with marketing leafy vegetables in Kogi State.

METHODOLOGY

The study was carried out in Kogi State which lays on latitude 7°30N and longitude 6°42E, it has a population of 3314,043 at the 2006 census and covers a total area of 29,833km2.KogiState consists of 21 Local Government Areas grouped into four agricultural zones.Sampling was preceded by a reconnaissance survey to determine the sampling frame. Multi-stage sampling technique was employed in selection of respondents for this study. In the first stage, one local government area was purposively selected from each of the zones. In the second stage, from each of the four local government areas two markets were selected based on the relative predominant availability of leafy vegetables in the area identified, this gave a total of eight (8) market. In the third stage, there was a proportional selection of 40 marketers from each market that is fourteen (14) wholesalers and twenty six (26) retailers which made up a total of fifty-six (56) wholesalers and one hundred and four (104 retailers)and a total sample size of 160

marketers.

Data Analysis

Marketing margin was achieved using marketing margin analysis, net income was achieved using the net income analysis and Likert type scale was used to achieve problems associated with marketing leafy vegetables.

Marketing margin analysis is given as

For wholesaler

$$\frac{\text{Wholesale selling price} = \text{wholesale buying price}}{\text{wholesale buying price}} \text{ X } \frac{100}{1}$$

For Retailer:

$$= \frac{\text{Retailer selling price} = \text{retailer buying price}}{\text{retailer buying price}} \text{ X } \frac{100}{1}$$

Net income analysis is given as

It is given by:

$\prod = TR - TC$

Where:

$\prod$ = Net profit

TR = Total Revenue

TC = Total Cost and TC = TVC + TFC

TVC = Total Variable Cost

TFC = Total Fixed Cost.

The straight line depreciation method was used to compute the depression of marketing equipment.

Given as:

$$D = \frac{p - s}{n}$$

Where:

D = Depreciation (N)

P= purchase price

S = salvage value

n = useful life of asset (number of years the equipment is used in marketing)

Likert Scale Rating Technique

A Likert scale is psychometric scale in survey research. The scale captures the intensity of

their feelings. A 5-point rating scale will be employed in this study. This will be regarded as strongly agree (SA), agree (A), no response (NR), disagree (DA) and strongly disagree (SD), with corresponding values of 5, 4,3,2,1 respectively. The mean score (MS) of the respondents based on the 5-point rating scale will be $\frac{5 + 4 + 3 + 2 + 1}{5} = 3.0$ cut off point.

RESULT AND DISCUSSION

Marketing Margin for Leafy Vegetables

The marketing margin for leafy vegetable is presented in Table 1.

Table 1: Mean purchasing and selling prices per bail of leafy vegetable

Market dealers	Purchase price (₦)	Selling price (₦)	Marketing Margin (N)
Wholesalers	432.14	707.125	274.99 (63.6)
Retailers	1266.25	1746.15	479.9 (37.9)

Source: Field data 2016

From Table 1, wholesalers recorded ? 274.99 (64%) margin and the retailers recorded ? 479.9 (38%) margin. This was contrary to the findings of Afolabi (2007) on marketing of a food commodity in Southwestern State of Nigeria, when they reported that retailers' marketing margin was much higher than the wholesalers' margin.

Cost and return for leafy vegetable marketing

From Table 2 below, the cost and return of marketing leafy vegetable, the average total revenue per wholesaler per month was ? 49,513, total cost ? 22,805.7 and a net profit of ? 26,707.3 and ? 30,246, ? 16,592 and ? 13,654 for total revenue, total cost, and net profit for retailer respectively. The cost for retailers was smaller than that of the wholesalers because in some cases, some of the retailers bought their vegetables in the market and also sold there, thereby reducing transportation cost. Transportation cost is the largest cost of the marketing of fluted pumpkin and spinach in Kogi state. This is in agreement with Madhin-Gabre (1991) who confirmed that transport represented the largest share of marketing cost in sub-Saharan Africa. From the result of the net profit for both wholesalers and retailers, leafy vegetable marketing is a profitable business in Kogi State.

Table 2: **Average Total Cost, Average Total Revenue and Average Net Profit per bail, Per Month for Marketers**

Marketer	Wholesaler	Retailer
Total revenue(₦)	49,513	30,246
Purchase price(₦)	15,740	10,820.21
Cost		
Transportation	5065.7	4400
Rent	_	_
Wheelbarrow	_	234.5
Commission	500	_
Other equipment's used	500	687.7
labour	1000	350
storage cost	_	100
Total Cost	22,805.7	16,592
Net profit	26,707.3	13,654

Source: computed from Field data 2016. N:B All values of equipment have being depreciated

Problems to leafy vegetable marketing in Kogi State

Likert scale was used to grade the constraints involved in marketing leafy vegetable. Table 3 showed the constraints of marketing leafy vegetable in Kogi State. The study revealed that; high perishability, high transportation, inadequate storage facility, bad road network, low initial capital and no standard measure, topped the reasons attributed to be constraints encountered by leafy vegetable marketers in Kogi state. These constraints could cause loss to the marketers thereby reducing profit. Among the constraints to leafy vegetable marketing in the study area was high transportation cost. Due to the nature of the roads, transportation charges were found to be too high in most cases, too exorbitant. This result corroborated the findings of Babatunde and Oyatoye (2000) who found that 86.5% of the maize marketing problems in Kwara state as transportation cost.

Table 3: Constraints in marketing leafy vegetable in the study area

Constraints	Mean score	Rank
High perishability	4	1
Inadequate storage facility	4	1
High transportation	4	1
Low initial capital	3.619	2
No standard measure	3.4	3
Numerous middle men	1.98	4
Low demand	1.81	5
Price fluctuation	1.67	6

Source: Field data 2016

CONCLUSION AND RECOMMENDATIONS

The study showed that leafy vegetable marketing in Kogi State is a profitable business irrespective of the constraints encountered by the marketers; the business was able to improve the livelihood of the marketers. Transport cost was shown to have impact on prices as well as the margins of vegetables.

1. Government's indispensable role is that they should build and repair roads, and also construct new ones; which will in turn bring about reduction in the cost of transportation and also minimize vegetable losses.

2. Marketers should be encouraged with loans that have little or no interest to enhance and increase purchase of their goods thereby leading to increase in livelihood of marketers, since leafy vegetable marketing is a profitable business in Kogi State.

3. Sufficient and modern market stalls should be built by Kogi state government so as to ensure and foster conducive environment, and as well provide hygienic environment for their sales. Entrances to the market stalls should be made accessible, so that vehicles transporting the products reach the marketers' stall or spaces for bulk evacuation as well as ease for entry and exit in the vegetable market.

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ANALYSIS OF FOOD SECURITY STATUS AND COPING STRATEGIES AMONG FARMING HOUSEHOLDS IN DEKINA LGA, KOGI STATE, NIGERIA

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Abstract
Food security is an important human welfare that is not negotiable globally. Data used for the study was primary wherefore; descriptive and inferential statistics such as logit regression was used to analyze the data. Results is in line witha priori expectations of the socio economic characteristics of respondents.The daily recommended per capita food calorie is 2260kilocalories. Using the mean per capital household food calorie, 59.17% of households in the study area were food insecure and 40.83% of the households were food secure.The logistic regression analysis shows a pseudo R^2 of 0.4459. Gender, educational level and farm size are positively related with food security status.Also, farming experience, age, household size and annual income are negatively related with food security status of the respondent but it is only age that is statistically significant at 1%. This implies that, the more these variables increase the more food insecure the people are. A number of strategies were adopted in event of food insecurity to cope with livelihood.Hence, it was recommended that prevalence of small scale farming be discouraged and enhanceincrease production and mechanization.Provision of accessible and affordable credit facilitiesbe made available to farmers for new technologies adoption and expansion of production scale. Agricultural extension agents through who farmers are educated should be given more recognition and their innovative information taken more seriously. The fight against food insecurity will only succeed if vulnerable households are promptly considered first in all the mitigating policies.

Introduction

Adequate intake of quality food is a key requirement for healthy and productive life (Okwoche and Asogwa, 2012). Food security exists when food is available to everyone at all times, they have means of access, and that it is nutritionally , adequate in terms of quantity, quality and variety also that it is acceptable, within the given culture (FAO, 2004). This implied food must be available to the people to an extent that will meet an acceptable level of nutritional standards in terms calorie, protein and minerals which the body needs; the possession of means by the people to acquire it and consistency in its supply at all times. Food security at one level does not imply food security at other levels i.e National and Household levels. Despite the huge financial investment in the agricultural sector, many