Marketing Analysis of Selected Vegetables in Port Harcourt Metropolis Rivers State, Nigeria

Ikechi Kelechi Agbugba[1], Ayman Shelaby [2]

[1](Department of Agricultural & Applied Economics, Faculty of Agriculture, Rivers State University, Nigeria
[2](Department of Agricultural Economics, Faculty of Agriculture, Fayoum University, Egypt
Corresponding author: Ayman Shelaby

Abstract: *The study analyzed marketing variables of selected vegetables in Port Harcourt Metropolis, Rivers State, Nigeria. Specifically, the objectives (i) described the socio-economic features of the selected vegetable marketers; (ii) described the marketing costs and margins of the marketers; and (iii) determined the effect of the socio-economic features on the marketers' margins. Statement of null hypothesis that socio-economic characteristics do not significantly affect the marketing of selected vegetables was stated. Multi stage, purposive and simple random sampling techniques were employed in selecting the sample size for the study. In all a total sample size of 90 respondents were chosen for the study. The objectives were achieved using simple descriptive statistics, marketing cost and margin analysis, as well as inferential statistics (multiple regression analysis). From the analysis, the results indicated that majority (77.8%) of the respondents were female, which implies that vegetable marketing is female dominated. The highest proportion (32%) of the respondents' age falls within the age range of 41 and 50 years. This explains the reason why the age structure of most practitioners of vegetable marketing is active and middle-aged dominated. Regarding the respondents' marital status, majority (55%) were married followed by the singles (24%). For household size, 1-3 persons was recorded as highest (40%), which implies that most of the marketers had more people in their household indicating that larger households contributed more to family labor and equally entails greater mouth to feed. About formal education, majority (37%) of the respondents had primary education, 34% recorded no formal education and the rest had secondary education (17%) and those with tertiary education (2%). Finally, regarding religion, majority (77%) of the respondents were Christians. This implies that the marketing of vegetables is dominated by Christians. Regarding the marketing costs and margins, the results showed that the marketing margin for Ugu marketers was (N3, 343.00), Waterleaf marketers (N2, 300.00) while Okra marketers were (N2, 958.00). From the regression results, with R2 35% (though low) and adjusted R2 21%, the socio-economic variables: sex, formal education and household size were positively related to the margins of the vegetables wholesalers. On the other hand, other variables (age, religion, marital status, primary occupation and membership of association) indicated an insignificant (or negative) relationship with the marketers' margins. On the other hand, for the vegetable retailers (with R2 47% and adjusted R2 = 32%), the results further showed that the respondents' age, marital status, formal education and selected vegetable types are positively related to the margins of the selected vegetables retailers. The study recommended that future intervention strategies be made by government to promote vegetables marketing in the study area as there is still room for market intermediaries to improve their technical knowledge and skill in marketing of vegetables through training, so that the marketing system will become more responsive to consumers' demand.*

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Keywords: *Marketing, marketers, vegetables, costs, margins, Nigeria*

I.   Introduction

Vegetables are of great nutritional value and majorly comprise of minerals, vitamins, proteins, carbohydrates and dietary fibers in Nigeria and other sub-Saharan Africa. They form an important component in the human diet [1]. They are referred to as horticultural crops, which play a significant role in developing countries like Nigeria, both in income and social spheres for improving its income and nutrition status [2]. In addition to that, they help in maintaining ecological balance since horticultural crops species are so diverse.

More so, it provides employment opportunities as their management being labour intensive, production and marketing of these commodities should be encouraged in labour abundant and capital scarce countries like Nigeria [3].

According to [4], vegetables have a pivotal role in the success within Nigeria, other sub-Saharan African countries, and the World Health Organization's (WHO) global initiative on increased consumption of vegetables. Also, they are essential components in the human diet, and is said to achieve the nutritional security of a country is a function of enough vegetables consumed [5]. Vegetables refer to all categories of plant whose leaves, fruits, or roots are acceptable and used as vegetable by urban and rural communities through custom, habit and tradition. Vegetables are sometimes classified into traditional African vegetables (TAV), indigenous African vegetables (IAV), African indigenous vegetables (AIV) traditional leafy vegetables (TLV); African leafy vegetables (ALV); indigenous vegetable (IV), traditional African leafy vegetables (TALV or TLV), and all are subject to the contextual meaning [6].

Importantly, a list of some common vegetables cultivated and marketed in Port Harcourt Metropolis include two (2) leafy vegetables Ugu or fluted pumpkin leaf (Telfairia occidentalis), water leaf (Talinium triangulaire), and a fruit vegetable, Okra (Abelmoschus esculentus). They are produced and marketed in the wet and dry seasons of the year and the price must be within the range of consumers' budget. Some are rich in several nutrients especially B.Carotene, Vitamin C or ascorbic acid, proteins, iron folic acid dietary anaemia factors and also other minerals such as phosphorus, calcium, sodium, copper, magnesium and potassium [7].

In treatment of diseases like Jaundice, diarrhea, hepatitis B and C, cancer, diabetes mellitus and tuberculosis with the development of bitter leaf based dietary supplements; some of these vegetable crops are used [8]. There is bad synergy in the marketing channels and marketing infrastructures thereby leading to a very high and unstable consumer pricing with little consumers' money getting to the vegetables farmers [9].

There has been concern over the years regarding the efficiency of vegetable marketing. As noted by [10], economic efficiency depends on the market forces, which in turn are influenced by the sectoral and marketing polices of a country. Due to the important role vegetables play in the human diet, economy and environment, there is a universal recognition to develop a system of vegetable marketing in Nigeria [11]. The marketing of vegetable is gradually developing as many people develop interest to engage in vegetable enterprise especially as market intermediaries and thereby, assist in the process of distribution. This activity will provide a good source of income for vegetable marketers, and will also ensure a ready market for the produce most especially during this period.

Low vegetable intake is among the top risk factors contributing to about 2.7 million deaths globally [12]. In Nigeria, micronutrient malnutrition has been identified as a wide spread problem with serious economic consequences. These include low productivity, cognitive losses, work losses, among others [13]. This dismal picture of the micronutrient status spells serious consequences.

Consequently, vegetables have long been regarded as minor crops and thus, have attracted little marketing attention, in favour of major crops and cash crops [14]. It is important to note however, that vegetable marketing is one of the most rewarding but risky agribusinesses, due to their high perishability, price, yield variations, as well as its special features, coupled with changing customers' demand which could lead to increased uncertainty encountered by the marketers [15].

In the same vein, [16] described marketing of vegetables as a complex phenomenon due to its perishable nature, seasonality and bulkiness. Mitigating this challenge, according to [17], will entail ensuring an efficient marketing system to shoulder the tonnes of vegetables produces from production. In essence, for the damages and losses in fresh produce are; vibrations resulting from the transport vehicles as they navigate undulation and irregularities on the roads, among other established factors [18]. Also, in a related study, [9] found that the chief among factors that contributed to high marketing cost is transportation cost followed by storage cost which vegetable marketers in Port Harcourt Metropolis are not left out; they are affected by these factors. Hence, the essence of the study is to analyse the marketing of vegetables in Port Harcourt Metropolis.

The general purpose of the study was to examine the economic indices affecting the marketing processes of selected vegetables in Port Harcourt Metropolis of Rivers State, Nigeria. Specifically, the purpose of the study is to; (i) describe the socio-economic features of the selected vegetable marketers, (ii) determine the marketing costs and margins of the marketers, and (iii) determine the effect of the socio-economic features on the marketers' margins.

II. Materials and Methods

The study was conducted in Port Harcourt Metropolis of Rivers State, Nigeria. Regardless of the fact that the area is the capital and largest city of Rivers State, it is also the largest commercial city in the South-South geopolitical zone of the Niger Delta Region [19]. The area is made up of two (2) major local government areas (LGAs) which are Port Harcourt city and Obio/Akpor LGAs. The area is highly populated with people from all over the country as well as foreigners from outside the country either engaging in one business,

working like civil servants, oil-servicing staff or are merchant, among others. It is an urban area which lies along the Bonny River and is located in the Niger Delta area with an estimated population of 1,865,000 persons [20]. The most common indigenous vegetable marketed in the area include: Ugu or fluted pumpkin leaf, Waterleaf and Okra. The system of marketing these vegetable, is usually in whole sale and in retail. And major vegetable markets in Port Harcourt Metropolis are: fruit garden market slaughter market.

Sampling

Multi stage, purposive and simple random sampling techniques were employed in selecting the sample size for the study. In the first stage, three (3) major vegetable markets were selected from the study area. In the second stage, marketers of the three (3) vegetable classes already chosen were selected out of all the vegetable sellers in the markets previously selected. In the third stage, 30 vegetables marketers (5 Ugu wholesalers and 5 retailers; 5 Waterleaf wholesalers and 5 retailers; and then, 5 Okra wholesalers and 5 retailers) we selected from the list of the vegetables marketers already selected. This gave a total sample size of 90 respondents for the study. This is summarized in Table 1.

Table 1: Summary of the Study Sample

Market	Vegetable(s)	Wholesalers	Retailers	Total no of Respondents
A	Ugu or Fluted Pumpkin Leaf	5	5	10
	Water Leaf	5	5	10
	Okra Fruit	5	5	10
B	Ugu or Fluted Pumpkin Leaf	5	5	10
	Water Leaf	5	5	10
	Okra Fruit	5	5	10
C	Ugu or Fluted Pumpkin Leaf	5	5	10
	Water Leaf	5	5	10
	Okra Fruit	5	5	10
Total		**45**	**45**	**90**

Instrument for Data Collection

The instrument for data collection included copies of structured questionnaires. The copies of the questionnaires were structured in line with the specific objectives of the study before administrating them to the respondents in the study area.

Method of Data Analysis

Descriptive statistics (such as means, percentages and frequency distribution) were used in analyze data collected. More so, marketing margin analysis and multiple regression analysis were employed to analyze the data collected.

Marketing Margin Analysis (MMA)

This descriptive tool was used in determining the efficiency or the costs and returns analysis of the selected vegetables marketers. Marketing margin of a vegetable produce is the difference between the price paid by the ultimate consumer and the price received by the vegetable farmer, or the difference between the producer price (farm gate price) and the retail price. It is also known as the difference between the retail price and the marketing cost [21]. It can be expressed below;

$MM = RP-MC$ or $MM = PS/SP * 100$

Where;

MM; Marketing Margin,
RP; Retail Price,
MC; Marketing Cost,
PS; Price Spread, and
SP; Sale Price.

The marketing cost of the selected vegetables includes: cost of transportation, harvesting, tying in bundles, packing, storage, packaging, loading and off-loading. In analyzing marketing margins, [22] adopted the method of deducting the purchase price from the retail price. It is pertinent to note that marketing margin is widely adopted by researchers because of its simplicity and easiness in computation [23].

As [24] mentioned, three approaches used in estimating marketing margin as follows:

(i) Samples of representation of a certain product followed through the whole marketing system prices and charges are noted at each stage and averages are computed.

(ii) The gross receipt and outlays of each handler along a marketing channel are divided by number of volume of units handled.

(iii) Prices at each stage from producers to consumers averaged for a standard quality over a time period.

Multiple Regression Analysis (MRA)

Multiple regression analysis is an econometric method used to study relationships involving more than two (2) variables. The variation in the dependent variable is explained by more than one independent variable. As [25] pointed out that most regression models are multiple regression models because few economic phenomena can be explained by only one variable.

Multiple regression deals with cause-effect relationships [26]. However, for this study, it was used in determining the effect of marketers' socio-economic features on their margins. The form of the multiple regression analysis is explicitly expressed as;

$Y = b_0 + b_1x_1 + ... + b_nX_n + e$

Where;

Y; the dependent variable,

b_0; the intercept,

$X_1 - X_n$; the independent variables,

$b_1 - b_n$; the regression parameters, and

e; the random disturbance or error term.

Mathematically, it can be implicitly expressed as Y= f (X1, X2, X3 … Xn, e). The Xs which are independent variables are determined outside the model. They further induce changes or explain the behaviour of dependent variables, thereby forming the basis for the prediction of the dependent variable. F is the functional relationship, which is the way the Xs are transformed to Y. The 'e' which is the error term is to take into account the influence of various errors. Such errors are random or erratic behaviour of humans [27].

Most recent researchers involve multiple regressions in the analysis of their studies. In other words, [28] pointed out that many refined and modern methods of estimation have ignored graphical analysis with its obvious illustrations about statistical facts, which is not the case with the regression method. As indicated by [29], some of the desirable properties of regression include the following:

(i) linearity, unbiasedness and minimum variation;

(ii) simple to understand;

(iii) computational procedure is fairly simple;

(iv) has been used in wide range of econometric relationships with fairly satisfactory results;

(v) an essential component of most econometric tools.

Three functional forms namely-linear, semi-log and double-log will be used in the analysis of multiple regressions.

III. Results and Discussion

Socio-economic characteristics of the respondents

The socio-economic features of the selected vegetables' marketers in Port Harcourt Metropolis which were considered are presented in Table 2.

Sex of the respondents

Sex of the vegetable marketers could determine to a great extent the business they would engage in. From the results, Table 2 indicated that majority (77.8%) of the respondents were females, while the minority (22%) of the respondents were males. This suggests why women are more in vegetable marketing than the males. More so, this also implies that vegetable marketing can be done by both males and females, but are female dominated.

Age of the respondents

Age of the respondents is an important factor in agriculture because it determines ones experience in the vegetable marketing business. As shown in Table 2, the study indicates that the age distribution of the sample was skewed towards the upper age group of 41 and 50 implying that there is a relatively high proportion (32%) of middle-aged respondents in the marketing of the selected vegetables. From the order of higher frequency, the results further shows that the age ranges from 51 and 60, 31-40 and 21- 30 had the percentages (29.8%) followed by 21% and 9.8%, respectively. This agrees with the findings of [3] that the age structure of most practitioners of vegetable marketing are active and middle-aged dominated.

Marital status of the respondents

It is normally believed that married households tend to be more stable in the marketing business of vegetables than the single individuals. However, as indicated in Table 2, majority of the respondents are married (55%), followed by the singles (24%). The rest of the marketers included the widowed (8%) and then the separated (3%). This therefore, agrees with the study of [30] that the vegetable marketing enterprise is dominated by the married.

Household size of the respondents
Table 2 revealed that household size of 1-3 had the highest percentage (40%), followed by household size of 4-6 (32%) and then 7-9 (13%), and household size >9 (5%). This implies that most of the marketers had more people in their household indicating that larger households contributed more to family labour and equally entails greater mouth to feed.

Table 2: Socio-economic characteristics of the respondents

Characteristics	Frequency (n= 90)	Percentage (%)
Sex		
Male	20	22.8
Female	70	77.8
Age (in years)		
Less than 21	1	1.1
21-30	9	9.8
31-40	20	21
41-50	29	32
51-60	28	29.8
More than 60	3	3.3
Marital status		
Single	24	26.7
Married	55	61.6
Widowed	8	8.9
Separated	3	3.3
Household size		
1-3	40	44.5
4-6	32	31.5
7-9	13	14.5
More than 9	5	5.5
Formal education		
No formal education	34	37.8
Primary education	37	41.1
Secondary education	17	18.9
Tertiary education	2	2.2
Religion		
Christian	77	85.6
Muslim	7	7.7
Traditional	6	6.7
Primary occupation		
Farming	28	31.1
Trading	62	68.9
Membership of associations		
Member	18	20
Not member	72	80

Source: study field survey, 2017

Formal education of the respondents
　　　The acquisition of formal education is vital for effective communication [31]. Thus, educational level affects market information and interpretation; hence, it has the ability to affect quality transaction in the process of marketing. Table 2 indicated that majority of the respondents in the study area had primary education (37%), followed by those with no formal education (34%), respondents with secondary education (17%), and those with tertiary education (2%).

Religion of the respondents
The study indicated that a vast majority of the respondents were Christians (77%) followed by Muslims (7%), and then the traditional African practitioners (6). This implies that the marketing of vegetables is dominated by Christians. From his findings, [3] made a contrary observation that the key players of vegetable enterprise in an Ethiopian community are all Muslims. However, the finding of this research presupposes that metropolitan nature of the study area which welcomes other religions other Christianity.

Primary occupation of the respondents
As Table 2 indicates, 69% of respondents (62 respondents) work in trade careers and 31% (28 respondents) work in the farming.

Membership of associations

It's obvious that 80% of the respondents (72 respondents) are not members in associations where 20% only are members in associations as indicated in Table2.

Marketing Costs and Margins of the Vegetable Marketers

Marketing costs and margins of the selected vegetables (Ugu, waterleaf and Okra) can be defined as the difference between the producer and consumer prices of its equivalent quantity and quality. The wholesalers' and retailers' marketing costs and margins were expressed as percentages of the retail price. However, the producers' share of the retail price is the retail price less the value of the wholesale and retail marketing margins. Table 3 shows the marketing costs and margins for the selected vegetables.

Table 3: Average Marketing Costs and Margins for the Selected Vegetables in Nigerian Naira ₦

Purchase price components	Ugu Marketers (₦/Bundle)	Waterleaf Marketers (₦/Bundle)	Okra Marketers (₦/Bundle)
Cost of the vegetables	4,000	2,800	5,500
Transportation costs	650	440	1500
Taskforce	150	110	220
Costs incurred by spoilage	155	160	250
Loading costs	-	-	310
Offloading costs	-	-	100
Feeding costs	100	120	150
Packaging costs	-	100	100
Ticket-fee costs	102	170	225
Total costs	**5,157**	**3,900**	**8,355**
Selling price	**8,500**	**6,200**	**11,313**
Marketing Margin	**3,343**	**2,300**	**2,958**

Source: analysis of the study field data, 2017

Table 3 showed that the marketing margin for *Ugu* marketers was ₦3,343, Waterleaf marketers ₦2,300 while Okra marketers were ₦2,958. The high margins made by *Ugu* marketers could be attributed to the reason why they remain in the business. From the study, a good number of services rendered by the marketers who are either wholesalers or retailers such as transportation of the product from the farm gate or local markets to where they are marketed (urban market). It is pertinent to note that some of the marketers interviewed performed dual marketing roles as either wholesalers or producers. From the interview, some of the marketers (retailers) indicated that buy directly from the farm gate and could be said to have potentials to wield greater profits than the others (wholesalers).From the result, *Ugu* marketers' margins were higher than that of Okra and Waterleaf, implying that *Ugu* marketers have more influence in the market than Okra and Waterleaf marketers.

Table 4: Mean Marketing Margins of the Selected Vegetables in the study area in Naira

Market	Dealers	Purchase Price	Selling Price	Marketing Margins
Ugu Marketers		5,157	8,500	3,343
Waterleaf Marketers		3,900	6,200	2,300
Okra Marketers		8,355	11,313	2,958

Source: analysis of the study field data, 2017

In other words, as indicated in Table 4, this implied that ₦1000 increase in the purchase of *Ugu* from the marketers (wholesalers or retailers) will lead to an increase in the selling price of *Ugu* by ₦3,343. This also applies to that of Okra and Waterleaf marketers, which indicated that a ₦1000 increase in their purchases will result to an increase in their selling prices by ₦2,958 and ₦2,300, respectively. [32] made a similar observation in his marketing of selected food items in Southwestern Nigeria indicating that a food marketers' margin (A) was much higher than the margins of another (B) marketer. However, this could be as a result of the drudgery roles and services performed by the latter (B) marketer. From the computed results, it suggests that vegetable marketing is a profitable business venture in the study area.

Effect of socio-economic status on the margins of the wholesalers and retailers

With regards to determining the effect of the socio-economic characteristics of the respondents on the vegetable marketers' margins, regression analyses were employed for both the wholesalers as well as for the retailers, respectively. Table 5 presents the results for the margins of the wholesalers.

From the regression results, Table 5 presents that at R^2 (35%) and adjusted R^2 (21%), the socio-economic variables and their level of significance on the margins of wholesalers. The results further showed that respondents' sex, formal education and household size are positively related to the margins of the selected vegetables wholesalers. This therefore, implied that improving the quality, welfare or well-being of the significant variables will in turn, positively influence the wholesalers' margins. On the other hand, other

variables (age, religion, marital status, primary occupation and membership of association) indicated an insignificant (or negative) relationship with the marketers' margins.

Table 5: Regression results for the socio-economic effects on the selected vegetables wholesalers' margins

Variables	Unstandardized Coefficient		Standardized Coefficient	T	Significance
	B	SE	Beta		
Constant	225073	65726	-	3.42	0.002
Sex	42259	15907	0.39	2.66	0.012*
Age	(378.4)	923.9	(0.09)	(0.41)	0.69
Marital status	10659.4	10671.2	0.18	0.99	0.325
Household size	(5025.4)	2426.1	(0.32)	(2.07)	0.046*
Formal education	3460	1468.9	0.35	2.36	0.024*
Religion	(10623.8)	12985.2	(0.13)	(0.82)	0.419
Primary occupation	(29735.2)	15645.7	(0.32)	(1.90)	0.065
Membership of associations	6996.6	14686.7	0.07	0.48	0.637

Source: analysis of the study field data, 2017
*Coefficients significant at 5%; $R^2 = 35\%$;   Adj. $R^2 = 21\%$

Results of the null hypothesis
From the regression results, the statement of the null hypothesis which states that the socio-economic features do not significantly affect the margins of the selected vegetables marketers is rejected for respondents' i.e. the wholesalers' sex, formal education and household size, but accepted for age, religion, marital status, primary occupation and association membership.

Effect of socio-economic status on the margins of the retailers
With regards to determining the effect of the socio-economic characteristics of the respondents on the vegetable marketers' margins, regression analyses were employed for the retailers. Table 6 presents the results.

Table 6: Regression results for the socio-economic effects on the selected vegetables retailers' margins

Variables	Unstandardized Coefficient		Standardized Coefficient	T	Significance
	B	SE	Beta		
Constant	3078.8	1044.6	-	2.95	0.006
Sex	(62.9)	267.3	(0.03)	(0.24)	0.819
Age	(53.6)	19.8	0.02	0.16	0.011*
Marital status	894.4	346.1	0.68	2.58	0.0014*
Household size	(142.4)	55.9	(0.42)	(2.55)	0.15
Formal education	15.2	36	0.06	0.42	0.015*
Religion	31.4	201.4	0.02	0.16	0.877
Primary occupation	(263.2)	270.2	(0.15)	(0.97)	0.337
Membership of associations	121.5	319.5	0.06	0.38	0.706
Kind of vegetable	635.7	235.5	0.67	2.70	0.011*

Source: analysis of the study field data, 2017
*Coefficients significant at 5%; $R^2 = 47\%$;   Adj. $R^2 = 32\%$

From the regression results, Table 4.5 presents the socio-economic variables and their level of significance on the margins of retailers. At R^2 47% and adjusted R^2 32%, the results further showed that the respondents' age, marital status, formal education and selected vegetable types are positively related to the margins of the selected vegetables retailers. The results were a bit similar to that of the wholesalers since both marketers (wholesalers and retailers) had formal education as a significant variable to their margins, an obvious indication that formal education enhances the performance of business practitioners. [33] made a similar observation. On the other hand, variables such as sex, religion, household size, primary occupation and membership of association were not negatively related to marketers' margins.

Results of the null hypothesis
From the regression results, the statement of the null hypothesis which states that the socio-economic features do not significantly affect the margins of the selected vegetables marketers is rejected for the vegetable retailers' age, marital status, formal education and selected vegetable types, and accepted for sex, religion, household size, primary occupation and association membership.

IV.   Conclusion and Recommendations
Marketing of leafy and fruit vegetables is found to feature prominently in Port Harcourt metropolis. From the study, the market players involved in its marketing are majorly wholesalers and retailers of Ugu, Waterleaf and Okra. More so, the study showed that vegetables marketers are dominated by females who are of the active and middle-aged group, the married as well as Christians. High marketing margins were recorded by

Ugu marketers which were attributed to the reason why they still remain in the business. From the study, a good number of services were rendered by the marketers who are either wholesalers or retailers such as transportation of the product from the farm gate or local markets to where they are marketed (urban market). From the interview, some of the marketers (retailers) indicated that buy directly from the farm gate and could be said to have potentials to wield greater profits than the others (wholesalers).From the result, Ugu marketers' margins were higher than that of Okra and Waterleaf, implying that Ugu marketers have more influence in the market than Okra and Waterleaf marketers.

More so, findings of the study show that the socio-economic features of the respondents which included sex, formal education and household size are positively related to the margins of the selected vegetables wholesalers. This therefore, implied that improving the quality, welfare or well-being of the significant variables will in turn, positively influence the wholesalers' margins.

Conclusively, findings for the retail marketers further indicated that retailers' age, marital status, formal education and selected vegetable types are positively related to the margins of the selected vegetables. The results were a bit similar to that of the wholesalers since both marketers (wholesalers and retailers) had formal education as a significant variable to their margins, an obvious indication that formal education enhances the performance of business practitioners.

Based on the results of the study which implied that vegetables marketing are highly profitable enterprise, the following recommendations are given to be considered in the future intervention strategies aimed at promoting vegetables marketing in study area.

(i) There is need as well as room for market intermediaries to improve their technical knowledge and skill in marketing of vegetables through training, so that the marketing system will become more responsive to consumers' demand.

(ii) Transport cost was shown to have impact on prices, as well as the margins of vegetables marketers. Survey results indicated that high cost of transportation was a major constraint which affected virtually all the marketers of Ugu, Waterleaf and Okra. Government's indispensable role is that they should build and repair worn out roads, and also construct new ones; which will in turn bring about reduction in the cost of transportation and minimization of vegetables losses.

(iii) Marketing association has shown potentials for enhancing marketers' welfare and services. Analysis showed that majority of the respondents expressed a need to form market associations, which will in turn bring about easy access to market information as well as lower transaction costs. With respect to this, vegetables marketers should be encouraged to be organized into formidable associations.

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