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Effect of Undersupply of Fuel on the Distribution of Agricultural Produce in Ogbomoso Agricultural Zone of Oyo State, Nigeria.

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ABSTRACT

This study is designed to examine the effect of undersupply of fuel on the distribution of agricultural produce in Ogbomoso Agricultural Zone of Oyo State. A multi stage sampling procedure was used in selecting 120 respondents for this study. Primary data were collected through administration of both well-structured questionnaire and interview schedule to elicit information from agricultural produce distributors. Data collected were analysed using both descriptive and inferential statistics to present the socio economic characteristics of the distributors and test the hypothesis respectively. The result of the finding revealed the socio- economic characteristics of the respondents such as year of experience of the respondents, the mean years of experience is 26years which means that the people have gained enough knowledge about farming and distribution of agricultural produce which could assist them in effective distribution and increase their income, it was also discovered that farming is the main economic activity of the people in the study area and this can bring higher productivity and make agricultural produce available and cheaper for distribution. The result of the finding also shown that the cost charge on transportation of agricultural produce is very high, which in many cases hinder distribution and lowers the distributors income and the quantity that will be distributed, it was also observed that the major causes of undersupply of fuel are: the mode of fuel distribution, oil marketers strike, NUPENG strike and prices at which fuel is sold. It was also revealed that fuel is one of the factors which greatly affect the distribution of agricultural produce in the study area. Based on the findings of the study it was recommended that there is need for awareness about distribution of agricultural produce for the youths in the study area. More effort should be employed on the part of fuel marketers so as to effectively distribute fuel and avoid frequent strike. Black market should be discouraged so as to avoid hoarding of fuel and inflation of fuel prices and to ensure availability of fuel all year round. Government should put more effort in stopping NUPENG strike, so that fuel can easily be distributed. Government should improve payment of fuel subsidy so as to regulate and maintain fuel price in the area. Effort should also be made by Government in repairing old refineries so as to ensure availability of fuel all year round. Finally, Government should make effort in providing security on fuel pipes, to avoid underground drilling of fuel by exorbitance.

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Introduction

Transport is regarded as a crucial factor in improving agricultural productivity. It enhances quality of life of the people, creates market for agricultural produce, facilitates interaction among geographical and economic regions and opened up new areas to economic focus. Nigeria is blessed with abundant natural resources of which petroleum products are important factors in her domestic economy, Nigeria is the eight among the world's oil producing countries, The Nigerian economy is heavily dependent on petroleum products, which account for over 95 percent of export earnings and about 85 percent of government revenues (World Bank Report, 2010). Petrol or Premium Motor Spirit (PMS), Diesel and Kerosene are the basic products used in road transport services, manufacturing industries, power generation, household cooking and private vehicles. Isyaka, (2014).

Agriculture is the main source of economic livelihood in Nigeria before independent and the discovery of oil, however, at the discovery of oil in 1956 by Shell Darcy, the attention of the government was shifted from Agriculture to petroleum and the country was depending mostly on petroleum. The country was moved from self-sufficient in food to highly dependent on food importation because agricultural sector was neglected (Akinniran, 2011).

In the 1960s, agriculture accounted for 65-70% of total exports; it fell to about 40% in the 1970s, and crashed to less than 2% in the late 1990s. The decline in the agricultural sector was largely due to rise in crude oil revenue in the early 1970s. Less than 50% of the Nigeria's cultivable agricultural land is under cultivation. Agriculture is a reliable and viable source of food and income for the ever increasing population and this sector has a greater role to play in a developing economy such as Nigeria.

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Nigeria is blessed with abundant natural resources with a substantial agricultural potential which makes it ranks first among the leading agricultural producers in the region and still it is the largest importer of staple foods in West Africa (Erumwenbibi, 2014).

Oil, which was was first located in Oloibiri in Ogbia LGA of Bayelsa state Nigeria becomes a major source of energy in Nigeria and the world in general. It plays a vital role in shaping the economic and political destiny of the country. Although Nigeria's oil industry was founded at the beginning of the century, it was not until the end of the Nigeria civil war (1967 - 1970) that the oil industry began to play a prominent role in the economic life of the country. Nigeria can be categorized as a country that is primarily rural, which depends on primary product exports (especially oil products). Since the attainment of independence in 1960 it has experienced ethnic, regional and religious tensions. Gbadebo, (2008).

Oloibiri Oilfield is named after Oloibiri, a small, remote creek community, where it is located. In Nigeria, Oilfield is usually named after the host community where it is located or local landmark. Oilfield is also given names taken from indigenous language. The field is operated by Shell Petroleum Development Company of Nigeria Limited (SPDC) . The field was originally operated by Shell Darcy. On 30 April 1956, Shell Darcy changed its name to Shell BP Petroleum Development Company of Nigeria L imited to reflect BP interest. In 1979, it changed its name gai n to Shell Petroleum Development Company of Nigeria Limi ted (SPDC) following the nationalisation
of BP interest by the Government.

The three main purposes for which oil is used worldwide are food, transport and heating. In the near future the competition for oil for these three activities will be raw and real. An energy famine is likely to affect poorer countries first, when increases in the cost of paraffin, used for cooking, place it beyond their reach. Following the peak in production, food supplies all over the world will begin to be disrupted, not only because of price increases but because the oil will no longer be there (Norman, 2005).

Under supply of fuel has been one of major problems in agriculture, it worsen the problem of poverty in Nigeria, many farmers often lose their produce as a result of the inability to transport their produce to the sales point (market). The problems associated with undersupply of fuel in agricultural distribution during fuel scarcity, a lot of hardship is meted to the generality of Nigerians both in the rural and urban areas. People do a long distance trekking before getting to their destination which motor vehicles could have done. A lot of foodstuffs are wasted due to lack of transportation to take them to markets. Motorists as well as cyclists are put off the roads when they can't get fuel and subsequently, lose their jobs. Sometimes, they can run out of patience and decide to take laws into their hands and cause more economic havoc. For instance, recently, members of the Ogbomoso area in Oyo State chapter of the Nigeria, suffered high cost of transportation fare, increased market prices of goods, long queue, etc. as a result of the National undersupply of fuel to some area, the action which almost paralysed the economy of the State was to protest the non-availability of petrol for members of the association to carry out their business.

Undersupply of fuel can lead to mixing of fuel with another substances by people e.g petrol with kerosene, Promoting black market, Wasting of foodstuff, Irrational beh aviour of the drivers, Increase in transportation fair, Lack o f comfort for passengers, Increase in rate of accident, gives room for hoarding during fuel scarcity etc., another adverse consequence of illegal sales of fuel is adulteration. Black market fuel sellers have reputation for adulterine their illegal wares with kerosene and diesel and sell to unsuspecting motorists. The adulterated fuel ends up damaging vehicle engines, even causes accidents and possibly loss of lives. Another adverse effect of hoarding and smuggling of petroleum products is that many people have become rich through the illicit trade. These people do not contribute anything to the economy and yet live- like kings in the society.

From the ongoing this study was designed to assess the effect of undersupply of fuel on agricultural produce distribution in Ogbomoso Agricultural zone of Oyo state. Specifically, the study identified the socio-economic characteristics of the distributors, described their roles in transporting the produce to final destination, highlighted the causes of undersupply of fuel on the distribution of agricultural produce and market prices of goods, examined how undersupply of fuel affect transportation of agricultural produce and market price of goods and discussed the roles and steps government can take in improving fuel supply. Two hypotheses were tested in null form for the purpose of this study: Undersupply of fuel is not a market price determinant and Government investing more on fuel supply will not have any significant influence on agricultural produce distribution.

Material and Method

This study was carried out in Ogbomoso Agricultural zone of Oyo State. The zone comprises of Ogbomoso, North, Ogbomoso South, Ogo-Oluwa, Orire and Surulere Local Government Areas. Farming is the major activity of the people in this zone. It was dominated by Yoruba while other ethnic groups such as Hausa, Igbo, Fulani etc. were equally living peacefully in the zone. Agricultural produce distributors constitute the sample frame for this study. A multistage sampling procedure was employed for this study, stage one involved purposive selection of Ogbomoso Agricultural zone out of four zones in Oyo State. This was followed by selection of three (3) Local Government Areas: Ogo-Oluwa, Orire and Surulere, five (5) wards were randomly selected from each LGA, the third stage was selection of two (2) wards each, followed by selection of two (2) communities. Two (2) distributors of agricultural produce were finally selected from each community to make a total of one hundred and twenty respondents for this study. Primary data were used for this study. The data were collected through the use of well-structured questionnaire and interview schedule. Questionnaires were administered to source information from the respondents while interview schedule and, oral interview were also used to obtain information from the illiterates. Information on cost of transportation, number of items transported, types of vehicles used, cost of fuel purchased, available road network, nearness to filling station, price at farm gate, market prices, and so on were collected.

The data obtained were analysed using both descriptive and inferential statistics,descriptive statistical tools employed include; percentages, mean, and frequency

le. While ordinary least square was used as inferential statistics. Regression analysis which relates input and output

together was used to compute the relationship between dependent and independent variables.

Multiple linear regression analysis was employed in this study. The multiple linear regression was used to:

- Predict the value of a dependent variable when it involves more than one independent variable.
- Explain the impact of changes in an independent variable on the dependent variable.

Dependent variable: the variable we wish to explain.

Independent variable: the variable used to explain the dependent variable.

$Y= f(X_1, X_2, X_3, X_4,.....X_{10})$

$Y= \beta_0 - \beta_1X_1 +....+\beta_{10}X_{10} + \mu$

Where;

Y = dependent variable (agricultural produce such as yam, cassava, garden egg, maize etc)

X= independent variables (fuel)

β_0 = constant (trekking)

μ = stochastic variable (breakdown of vehicle, engine leakage, road traffic)

X_1 = Distance covered

X_2 = Labour cost

X_3 = Market prices

X_4 = Cost per service

X_5 = Fuel price

X_6 = Price effect

X_7 = Transportation

X_8 = distance travelled

X_9 = route of transportation

X_{10} = capital

Results

This section presents the analysis and interpretation of result of data collected for the study. It comprises of two segments; descriptive and inferential segments. The descriptive statistics was used to present the social economic characteristics, roles played by the distributors of agricultural produce, causes of undersupply of fuel and the roles and steps taking by the government in improving fuel supply. While the inferential segment examines the effect of fuel on transportation of agricultural produce and market prices of goods and reports the relationship between input and output.

Socio-Economic Characteristics of the Respondents.

The socio economic characteristics of the respondents are presented in Table I below, the table38.33% of the respondents are between the ages of 51-60 years, only 10.00% falls below 40 years of age. The mean age is 53 years; this implies that most of the respondents are above their productive age so there is need for awareness about distribution of agricultural produce for the youth in the study area which can help in effective distribution of agricultural produce and can be capable of sourcing for fuel during scarci ty.

Sex of the respondents revealed that majority that is 88.33% of the respondents are males and the remaining 16.67% of the respondents are females; This implies that higher male were involved in the distribution of agricultural produce, this may be due to the nature of the work required in the distribution of agricultural produce, also male have the ability to respond to quick delivery of their produce irrespective of the cost of transportation, but women makes lots of negotiation on high cost of transportation thereby may cause delay in produce distribution. It was also revealed from the table that 94.17% of the respondents were married and 5.83% were single, this reflects that larger percentages are married which implies responsibility among the respondents, and can assist in distribution of agricultural prod uce. Majorly 94.17% of the respondents engaged in farming as their major occupation, while 0.83% engaged in other business; this implies that farming is the main economic activity of the people in the study area and this can bring about higher productivity and make the agricultural produce be available at cheaper rate or at affordable price. It was observed from the table that 44.15% of the respondents are below 20 years of experience in farming while only14.12% of the respondents were between the ranges of 41 years and above. The mean year of experience is 26 years; this implies that the farmers had enough experience on farming and effective distribution which could aid activities and increase in income. Educational status of the respondents from the result of the findings revealed that 84.2% had one form of formal education or the other, while only 15.80% did not; this means that majority of the respondents are educated and have knowledge about distribution of agricultural produce in the area which could assist in adoption and adaptation of new technology thereby making distribution of agricultural produce very easy, fast and reduce stress. In addition, it was also reported from Table 1 that 61.67% of the respondents in the area make use of family labour in their farming activities while 38.33% do not make use of family labour. This implies that majority of the respondents have family support and are productive and they could help in carrying and transporting agricultural produce during fuel scarcity, thereby increasing the rate at which produce get to the consumer during undersupply of fuel in the study area.

Table 1. distribution of respondents by their socio economic characteristics.

Social economic characteristics	Frequency	Percentage (%)
Age		
< 40	12	10.00
41-50	43	35.84
51-60	46	38.33
≥ 61	19	15.83
Sex		
Female	20	16.67
Male	100	83.33
Marital status		
Married	113	94.1
Single	7	5.83
Major occupation		
Teaching	1	0.83
Farming	113	94.17
Trading	5	4.17
Others	1	0.83
Experience		
<20	53	44.15
21-40	50	41.68
≥40	1	14.17
Educational status		
Formal	101	84.2
No formal	19	15.80
Family labour		
No	46	38.33
Yes	74	61.67
Total	120	100

Source: Field Survey, 2015.

Roles of distributors in transporting agricultural produce.

The roles of distributors in transporting agricultural produce is reported in the table two below; the table

presented that 60.84% of the respondents cultivate and distribute garden egg, while 8.33% engaged in maize and yam cultivation. This implies that larger proportion of farmers in this area produce garden-egg plant, which could be as a result of the type of soil and climate, and available means of distributing and the income generated from distributing garden egg. It was shown also that 80.00% of the respondents in the area transport their produce through hired vehicle, while only 0.83% transport their produce by trekking to the market; this implies that the role of distributors in produce transportation is very minimal in the area, which could be as a result of insufficient members of distributors. It was also observed that 88.33% of the respondents distribute less than 1200tons of produce, and only 3.33% distribute above 2500 tons of produce. It also revealed that 77.50% of t he respondents travelled less than 5km in distributing their pr oduce, while only 5.8% travelled around 9 kmand above in tr ansporting their goods to final destination; this implies that m arket and salespoints are not too far from the respondents, an d that the shorter the distance, the higher tendenciesof getting vehicles to transport their produce to the market. It was also presented that 45.83% of the Respondents pay the sum of 5,200-30,000 in distributing their produce, while 17.5% pays #32,000 and above; this implies that the cost charge on produce distribution is very high, which may therefore have a negative effect and hinder effective distribution of agricultural produce.

Table 2. Presentation of role of distributors in ransporting agricultural produce.

Role of distributors	Frequency	Percentage (%)
Crop distributed		
Maize	10	8.33
Garden egg	73	60.84
Cassava	27	22.50
Yam	10	8.33
Transportation		
Hired vehicle	96	80.00
Personal vehicle	5	4.17
Distributing channel	18	15.00
Trekking	1	0.83
Quantity in tonnes		
<1200	106	88.33
1300-2400	10	8.34
≥2500	4	3.33
Distance covered (km)		
<5	93	77.50
6-8	20	16.67
≥9	7	5.83
Cost charged per service		
<5,000	44	36.67
5,200-30,000	55	45.83
≥32,000	21	17.50
Sources of information		
Mass media	9	7.50
Friends	33	27.5
Fellow Distributor	78	65.00
Total	120	100

Source: Field Survey, 2015.

And it was observed that 65.00% of the respondents get information on market prices of the produce from fellow distribution, while 7.50% from mass media; this implies that there is effective communication between the distributors and the marketers which enables the distributors to have handful information before distributing their produce.

Causes of Undersupply of fuel

The different causes of undersupply of fuel is highlighted in Table 3 below, the table reported that 83.33% of oil marketers strike are responsible for undersupply of fuel in the area, and 0.83% of other factors are responsible for undersupply of fuel; this implies that the major cause of undersupply of fuel is caused by oil marketers strike.

Table 3. Tabulation of the causes of undersupply of fuel.

Causes	Frequency	Percentage (%)
Major cause		
Mode of distribution	8	6.67
Oil Marketers strike	100	83.33
NUPENG strike	9	7.50
Prices	2	1.67
Others	1	0.83
Sources of fuel		
Queuing in filling station	55	45.83
Black market	47	39.17
Freely available	12	10.00
Others	6	5.00
Distance of fuel station (km)		
<3	81	67.5
≥3.2	39	32.50
Fuel availability		
Daily	11	9.17
Weekly	78	65.00
Monthly	27	22.50
Others	4	3.33
Number of filling station		
<3	50	41.67
≥3.2	70	58.33
Total	**120**	**100**

Source: Field Survey, 2015.

It was also presented in the table that 45.83% of the respondents in the area queue in the filling station to source fuel, while only 5.00% source through other means; this implies that fuel is fairly scarce in the area which also cause delay in produce distribution and thereby affecting the income of the distributors.

Distance travelled by the respondents before getting fuel was shown in Table 3where more than two-third that is 67.50% travelled less than 3km to get fuel and 32.50% travelled around 3.2km and above. This implies that the distance of fuel stations are not far to the respondents, which could help them buy fuel anytime it available in the filling station.

Periodic availability of fuel at filling station was also discussed that 65.00% have fuel on weekly bases, while only 3.33% depended on other means; this implies that availability of fuel is at minimal and this sometimes affects distribution activities in the study area.

Meanwhile, number of filling stations available were iterated in the table that 58.33% of filling stations available were between the range 4 and 41.67% were below 3; this implies that the numbers of filling stations with fuel in the area will assist agricultural produce distributor in getting fuel and reduce the number of queues and assist in timely distribution of produce in the study area.

Effect of Undersupply of Fuel on transportation of Agricultural produce and market prices of Goods.

The effects of undersupply of fuel on the distribution of agricultural produce are shown in the Table4 below, the table reported that 95.00% of the respondents experiences high effects on their produce while the remaining 5.00% did not;

this implies that undersupply of fuel had adverse effect on the larger distributors of agricultural produce in the study area which may hinder effective distribution and lowers the income that is generated.

It also revealed that 94.16% purchase fuel at the price of N87, while the remaining 5.84% were above N87; this implies that it has no severe effect on fuel price. It was also observed that 81.67% of the respondents depend on black market during undersupply of fuel in the area, and only 5.83% depends on filling station; this implies that undersupply of fuel affects distribution of agricultural produce in the area.

Table 4. Distribution based on the effect of fuel on transportation of agricultural produce.

Effect of fuel	Frequency	Percentage (%)
On produce		
No	6	5.00
Yes	114	95.00
Fuel price		
87	113	94.16
>87	7	5.84
Other sources of fuel	15	12.50
Travelling to other village	98	87.67
Black market	7	5.83
Filling station	4	3.33
Black market charges	116	96.67
No	97	80.83
Yes	23	19.17
Other means		
No	116	96.67
Yes	3	2.50
Type of vehicle	1	0.83
Pick-up		
Panel van	22	18.33
Head	47	39.17
Input cost	43	35.83
<50,000	8	6.67
50,100-100,000		
102,000-240,00	105	87.50
≥241,000	15	12.50
Maize in (tons)		
<10	84	70.00
>11	36	30.00
Garden egg in(tons)		
<8	103	85.83
>9	16	13.34
Cassava in (tons)	1	0.83
<10		
11-20	110	91.67
≥21	10	8.33
Yam in (tons)		
<10	28	23.33
>11	77	64.17
Total price	15	12.5
<150,000		
155,000-300,000		
≥312,000		
Total	120	100

Source: Field Survey, 2015.

The table also presented that 96.67% of the respondents are affected by charges on black market while 3.33% are not affected. This implies that larger proportions of the respondents are affected by black market charges on fuel price, which many times hinders transportation and affet distribution and income of the distributors.

Majority 80.83% of the respondents in the area agree that no other means of distributing their produce during scarcity of fuel and 19.17% have other means. This implies that there is no effective means of distributing their produce, thereby causing loss of produce, shortage in income, disappointment to consumers and loss of customers and so on. It was shown that 96.67% of the respondents in the study area use pick-up in transporting their goods to final destination, 2.50% use panel van, and 0.83% use other vehicles. This implies that the major transportation used in the area is pick-up vehicles which were due to the bulkiness in nature of the agricultural produce distributed. It was also reported that 39.17% of the respondents in the area incurred the range of N50,100 -100,000 into the produce, and only 6.67% incurred less than N50,000; this implies that high cost is incurred in produce distribution because of the hi gh cost of transportation. It revealed that 87.50% of the respondents distributed less than 10 tonnes of maize and 12.5% distributed above 11 tonnes; this implies that the quantity of produce distributed is insufficient which could be as a result of land use for cultivation, inadequate transportation , and insufficient supply of fuel and so on. It was also observed that 70.00% of the respondents distributed less than 8 tonnes of garden egg and 30.00% distributed above 9 tonnes; this implies that less produce is distributed due to the effect of fuel on transportation. Majority 85.83% of the respondents distributed less than 10 tonnes of cassava, while 0.83% distributed 21 tonnes and above; this i mplies that there are high tendencies of distributing higher to nnes of cassava in the area if there can be effective means of t ransportation and supply of fuel. About 91.67% of the respondents in the area distribute less than 10 tonnes of yam and 8.33% distribute above 11 tonnes; implies that more yams can be distributed but are limited due to transportation cost and so on. It was also observed in the table that 64.17% of the respondents distributed produce that ranges between #155,000-300,000, and only 12.5% distributed #312,000 and above; this implies that high capital is used in produce distribution and it affect the revenue received from distribution.

Table 5.Presentation of Solution and role of government in fuel supply.

Solution	**Frequency**	**Percentage (%)**
Private individual	13	10.83
Government	101	84.17
Populace	2	3.33
Others	4	3.33
Government roles		
Payment of fuel subsidy	12	10.00
Repair of refineries	92	76.67
Security on fuel pipes	8	6.67
Statistical distribution	4	3.33
Others	4	3.33
Total	120	100

Source: Field survey, 2015.

Roles and Steps government can take in improving fuel supply

The roles and steps that government can take in improving fuel supply in the study area are presented in Table 5 below, the table reported that 84.17% of the respondents suggested that government should improve fuel

supply, while only 1.6% suggested the populace; this implies that the major solution to fuel supply is from the gove rnment. It also revealed that 76.67% of the respondents in the study area suggested that refineries should be repaired, and only 3.33% says statistical distribution of fuel; this implies that the majority wants the old refineries to be repaired by the government as solution to fuel supply which will help fuel reserve and availability.

Regression Result

The regression result of the findings which relate the dependent and independent variables was shown in Table 6, it was observed that the coefficient of determination $R^2$was computed as 0.850 which implies that 85% of the variation in the regression was explained as a result of linear association between the input and output variables. The remaining 15% is accounted for by the error term. F-value gives joint relationship between dependent and independent variables. Five out of ten variables were statistically significant quantity of produce distributed at different level. The coefficient of regression associated with labour cost (-.3380061) is negatively significant at 10% level, this implies that when there is high cost of labour it will have negative effect on the agricultural produce been distributed, and a unit increase in the cost of labour will reduce the revenue on agricultural produce by 0.33%, therefore, affecting the income generated negatively.

Table 6. Regression Result.

Variables	Coefficient	Standard error	T- ratio
Constant	173475.8	62973.16	2.75
Sex	38555.84	18932.97	-2.04**
Marital status	29570.66	29894.51	0.99
House hold size	-1549.688	2610.626	-0.59
Distance covered	9058.63	4136.941	2.19**
Labour cost	-.3380061	.1980902	-1.71*
Cost per service	-.3589908	.3275693	-1.10
Distance of filling station	27091.34	9231.3	2.93***
Fuel duration	-332.2435	10878.01	-0.03
Fuel price	-301.7786	115.9757	-2.60***
Price effect	20608.44	19747.57	1.04

Source: Field survey, 2015
* Significant at 10% level
**Significant at 5% level
***Significant at 1% level
R^2 = 85.0%
Adjusted R^2 =83.0%
F = 6.0%

Also the regression analysis associated with sex (-38555.84) is negatively significant at 5% level, this implies that the inability of the distributor to meet up with the demand either as a result of insufficient capital, or unwillingness to pay high charges on transportation could have negative effect on the distribution of agricultural produc e. Likewise the distance covered (9058.63) is positively significant at 5% level, this implies that the longer the distance covered the higher the cost that will be placed on produce distributed and the higher the profit that will be generated by the distributor, also the shorter the distance the high tendencies of getting vehicle to transport their produ ce. Also the distance of filling station (27091.34) is positively significant at 1% level; this implies that the filling station is closer for the distributor to get fuel which assist easy transportation and distribution of the agricultural produce in the area. Likewise Fuel price (-301.7786) is negatively significant at 1% level; this implies that as the price of fuel increased, there will be reduction in quantity of produce distributed thereby, reducing the profit made by the distributors.

Conclusion

The study examined the effect of undersupply of fuel on the distribution of agricultural produce in Ogbomoso Agricultural zone, Oyo State, Nigeria, and it was concluded that fuel which is one of the factors is greatly affecting the distribution of agricultural produce in the study area and that these problem can be solved by the Government through the provision of fuel subsidy, repairing of refineries and statistical distribution of fuel, and so on.

Recommendation

Based on the findings and conclusion of the study, the following recommendations are hereby suggested, there is thus need for awareness about distribution of agricultural produce for the youths in the study area, more effort should be employed on the part of fuel marketers so as to effectively distribute fuel and avoid frequent strike, black market should be discouraged so as to avoid hoarding of fuel and inflation of fuel prices and to ensure availability of fuel. Government should put more effort in stopping NUPENG strike, so that fuel can easily be distributed, Government should improve payment of fuel subsidy so as to regulate and maintain fuel price in the area, and effort should be made by Government in repairing old refineries so as to ensure availability of fuel, and Government should make effort in providing security on fuel pipes, to avoid underground drilling of fuel by exorbitance.

References

Akinniran, T. N. (2011). Supply Chain Management and Performance of Cocoa Industry in Nigeria. Unpublished **Ph D.** Thesis Department of Agricultural Economics and Extension, Ladoke Akintola University of Technology , Ogbomoso

Ayoade, A.R and Adetunbi S.I. (2013) Determination of farmers' coping strategies to household food insecurity in Oyo State, Nigeria. Department of Agricultural Extension and Rural Development, Ladoke, Akintola University of Technology, Ogbomoso, Oyo State. American Journal of Social and Management Sciences ISSN Print: 2156-1540, ISSN Online: 2151-1559, doi:10.5251/ajsms

Ajiboye, A.O. and O. Afolayan (2009) The impact of transportation on agricultural produce in a developing country: a case of kolanut production in Nigeria. International journal of agricultural economics and rural development.

Adefolalu, A.A (1997) Significant of transportation in rural development in environmental and spatial factors, proceeding of 20th annual conference of geographical association of university of ile-ife.

Ajiboye, A.O (1995) Transportation and distribution of agricultural product, a case of kolanut production in Remo-land, Ogun State, unpublished m.sc, transportation studies thesis, Ogun State, University, Ago- Iwoye.

Ajiboye, A.O (1995) the effect of transportation system on food marketing and security in Nigeria. (CMILT) transport management technology department school of entrepreneursh ip and management technology federal university of technology, minna, Niegria.

Erumwenbibi, B.O., Nwawe, C.N., Omofonmwan, E.I., Alufohai,G.O.,(2014).Economic Analysis of Staple Food Marketing in Benin Metropolis, Edo State, Nigeria. International Journal of Agricultural Economics & Rural Development - 6 (1):

Gbadebo, O.O.(2007) Crude oil and the Nigerian economic performanceOil and Gas Business, Department of Economics and Development Studies, College of Business and Social Sciences, Covenant University, http://www.ogbus.ru/eng/1

Isyaka, M.S.(2014) the implications of price changes on the petroleum product distribution in Gwagwalada Abuja, Nigeria. Journal of energy Technologies and policy ISSN2224-3232 (paper) vol.4, no.7

Megan, L.,Bruch and Matthew D. (2010). Choosing Direct Marketing Channels for Agricultural Products, Ernst Independent Writer Center for Profitable Agriculture. The development of this publication was funded in part by the Tennessee Department of Agriculture and USDA Rural Development.

Moses, A.A. (2011). Assessing the operation of bulk oil stora ge and transportation. Company limited in petroleum prod - uct and delivery to Northern Ghana.A Thesis Submitted to the School of Graduate Studies, Kwame Nkrumah University of Science and Technology, Kumasi

Norman, J. C. (2005). Why our food is so dependent on oil. Published by FTW

Obun, B. D.(2012). The Impact Of Physical Distribution Channels In Marketing of Agricultural Produce: A Research Project Submitted to the Department of Marketing Faculty of Management and Social Sciences Caritas University, Amorji-Nike, Emene, Enugu.

Orakwue CO, ICE Umeghalu and JO Ngini, (2015). Effects of road transport on agricultural productivity: a case study of ayamelum local government area of Anambra State, Nigeria. Inter J Appl Sci Engr, 3(1): 1-4,www.ijapscengr.com.

Rahul Tiwari,Prof. Ajay Narula ,Project Report On Distribution Channel Of McDonald'sThe Indian Institute of Planning And ManagementWikipedia,(2016) Oloibiri oilfield. https://en.wikipedia.org/...iki/Nigeria-oil.

Yagana Babakura Imam, Bintu Mustapha Chibok and Yakaka Gamama, (2014).Channels of Distribution of Agricultural Produce in Nigeria. Department of Business Administration, Faculty of Management Sciences, University of Maiduguri.