



ISSN: 0976-3376

Available Online at <http://www.journalajst.com>

ASIAN JOURNAL OF
SCIENCE AND TECHNOLOGY

Asian Journal of Science and Technology
Vol. 14, Issue, 09, pp. 12674-12679, September, 2023

RESEARCH ARTICLE

POTENTIALS OF INTER- COASTAL MOVEMENT OF GOODS IN SELECTED LOCAL GOVERNMENT AREAS OF AKWA IBOM STATE

*¹Adeyanju John Aderemi and ²Adepoju Olusegun Onifade

¹Coordinator, Academic Affairs, Maritime Academy of Nigeria

²Department of Maritime Transport Studies, Maritime Academy of Nigeria, Oron

ARTICLE INFO

Article History:

Received 20th June, 2023

Received in revised form

27th July, 2023

Accepted 14th August, 2023

Published online 30th September, 2023

Keywords:

Untapped, Movement, Coaster, Towns, Oron, Nigeria.

ABSTRACT

Nigeria as a country has six major seaports, many jetties and untapped potential local beaches across her inland water ways. It has been asserted that the cargo throughput plays a significant role in economic development of any nation. This assertion calls for the examination of exchange of goods between Nigeria and her neighboring countries so as to determine the balance of trade. Therefore, this study has been set out to examine the movement pattern of trades along the coaster areas of Oron, Ibaka, Ebughu Esuk Inwang, and Esuk Uyung boat terminals in Awka Ibom State, Nigeria. The movement pattern of variety of cargoes was observed at the selected coaster areas intermittently for 10 times within the year 2015- 2019. Again, the cost values for both inbound and outbound cargoes were taken by converting the unit cost price during the period under review. The estimated population of the beach markets was 3892. Yamane formula was used to get the sample size of 363 while using cluster and incidentalsampling techniques to administer well-structured questionnaires. The unit conversions of contra-bound and un-quantified cargoes through questionnaires were made by observations. The movement pattern of cargoes was determined using descriptive analysis. The results revealed that Nigeria has been a huge market for neighbouring countries and activities of coaster trades are not properly regulated. This study concluded that there are untapped revenues for Nigeria and pointing to the fact that, the activities of coaster trades movement should be regulated by government as this can generate income, employment and industries if harnessed across Nigerian jetties and inland waterways.

Citation: Adeyanju John Aderemi and Adepoju Olusegun Onifade. 2023. "Potentials of inter- coastal movement of goods in selected local government areas of akwa ibom state", *Asian Journal of Science and Technology*, 14, (09), 12674-12679.

Copyright©2023, Adeyanju John Aderemi and Adepoju Olusegun Onifade. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

INTRODUCTION

Ocean, seas, lagoon and rivers separated a lot of places all over the world. In most cases the water bodies are used as boundary between one region, community and others. However, as a result of complimentary roles and the need for transportation by sea to move across these water bodies necessitated the need for exchange of goods and services. The coaster trading is a form of trade between locations on the same island or within the same region and continent. Zhang and Roe (2018) posited that, 96% of cargo carriage in Nigeria in relation to international trade is through maritime transport. It is a known fact that Nigeria is blessed with natural resources including crude oil which has resulted into the country's economic progress in the past (Oyesiku and Gbadamosi, 2004). Regrettably, apart from exploration of crude oil, other sea foods, mineral resources are not well exploited to facilitate and reduce pressure on price-crashed crude oil in Nigeria. The Niger Delta part of Nigeria which comprises Akwa Ibom, Rivers, Cross River, Delta and Bayelsa States are very rich in terms of Cray fish, different kinds of fishes, palm wine, palm oil among other agricultural produce. This paper is to examine the regional trading especially as relate to origin and destination of the traded goods and the type of such goods commonly in transit in the coastal areas of Oron, Ebughu, and Ibaka in Akwa Ibom State. Botha and Filani (2006) noted that, coaster shipping and movement of goods through inland waterways is cost effective and allows the market price of commodities to be affordable. Even with gamut of possibilities and opportunities in Nigeria coaster waters in places like

as Onitsha, Idah, Lokoja and Baro in the Niger, and Markurdi, Ibi, Numan, Yola, Garua, Ibaka, Oron, Delta and Bayelsa; there potentials and advantages remain unexploited (Badejo, 1988). The trading transactions between Nigeria and Cameroon by extension Gabon through various river outlets in Oron cum Ibaka and its environs are still in crude form. The need to address the coaster movement and standardized the operational procedures can be attested to by the use of rickety boats, the safety of lives and environment, the concern for influx of prohibited goods, the political and economic health of Nigeria among others. The common goods being exported from Oron to neighboring countries of Cameroon are ethanol, dry fish, fuel, cosmetics and textiles. In turn the goods imported to Nigeria ranges from timber, palm oil, roofing sheets, rice, wine, used clothes among others. It is very obvious that Nigeria as a country serves as a region that demands for commodities produced in other parts of the world. However, the cost of importation coupled with different port charges and taxes makes it difficult for legitimate operations to thrive in Nigeria. Hence, most people had resorted to circumventing the normal due process to cut cost and achieve greater profits. It has been discovered that elimination of internal custom procedures and related administrative streamlining reduces trading cost by up to 2% of the value of trade (WTO 1998). Also, UNCTAD (1997) observed that trading costs represent 7 to 10% of the cost of delivering goods. An economic man is an optimizer, who will want to optimize profit not minding compromising integrity and national patriotism. This explains reasons for smuggling activities which are common in the coastal areas in Nigeria.

Relevant Literature on Coaster Trade: Coaster trade can be regarded as the short shipping transactions using the sea or coaster water with the aid of boats and other smaller vessels to the region of lower draft (Akgül and Cetin, 2018). Short Sea Shipping (SSS) is what coaster trade is usually being referred to in academic parlance though there is yet a concrete agreement on this ideology. However, the general notion regarding coaster trade is that “it is a maritime transport between seaports of a particular country and other adjacent countries (Balduini, 1982). The interactions between a coaster state and neighboring countries sometimes may not be formal. This informal trade may not be regarded as anything but really has significant impact on the economy. The transactions in this form needs to be monitored by any progressive nation for the sake of checkmating her balance of payment and terms of trade. According to European Conference of Ministers of Transport (ECMT, 1988), the United Nations recommended the use of coaster shipping because it produces less completion, does not generate congestion and no emission of CO₂. Apart from this, it has been observed that coaster shipping saves a lot of time as compared to regular seaports where there may be delay for loading, unloading, documentation and others. It should be seen as a part of global supply chain that can assist by providing feeder links and door to door services.

Trade theories: Theory of trade noted that, countries all over the world cannot produce all they need by themselves and as such the need to exchange what they have with what they need (Reuvid and Sherlock, 2008). The discovery of oil in Nigeria has really given a trajectory trend to the economic development of the nation in the past. Adam Smith expressed the importance of laws of absolute advantage and comparative advantage for mutual beneficial economic transactions. However, there were flaws in his postulations as a result of the fact that not only two countries can be involved in international or coaster trade. Nevertheless; this theory is still relevant especially within the context of coaster trade where the dealings may be limited to adjacent or neighboring countries. This theory opined that a country should specialize in what it knows how or commodity she can produce more. A British economist, David Ricardo suggested comparative advantage instead of absolute advantage in that, countries that have absolute advantage may decide not to trade with other countries. He espoused the concept of cost comparative advantage. One of the relevant theories in coaster trade is the Economic Growth theory of Rowtow (1971). There are four stages of economic growth and the final stage is the stage of high mass consumption which also requires high mass transportation, which of course increases mobility not only within the developing countries but also diffuses to less developed countries. In the same manner, the basic reason for movement according to Ullman (1957), which is often referred to as Triad theory has always been used to explain the theoretical bases for movement. The reason that mobility will take place when there is an emergence of alternative areas, which can satisfy the reason for the initial interaction and this explain the concept of intervening opportunity. The last concept is the transferability, which is referred to as modal choice (s). Modal choice in freight transport determines efficiency, reliability, safety and quick delivery of cargo. The Neo-classic theoretical base for international trading performance is always found in the trade theory. The basic provision of trade theory is an explanation of the demand for freight transport services which is further explicated to prove a comprehensive model of factor flow as a productive activity. In explaining the Neo-classic trade theory, Adam (1937) identified specialization along the lines of absolute labour advantage and exchange of the surpluses. The trade theory is found on the doctrine of comparative advantage, which implies massive production of what a country can best produce, exporting the surpluses and importing the needed one. Considering the flow and trade demand, Stubs et al (1980) examined the transport cost minimization problems whose purpose is to determine an optimal pattern of commodity flow over a given transport network. Closely linked with this is the trade theory arbitrage model of freight transport demand, which has been used in many studies (Enke 1951; Samuelson 1962; Ogwude 1997). Trade theory arbitrage is a generalized problem of interspatial market,

which also provided insight into the fundamental nature of economic pricing. The problem addressed by the model is to determine the final equilibrium of prices in all market which include the amount shipped from each locality and to any other locality and of export and import at each locality. The trade arbitrage model has been used variously to analyze spatial transport flow in term of export and import as well as determining the excesses and surpluses of commodity flow within region(s) (Ullman 1957; Berry 1966; Holsman 1979 and Ogwude 1997). Trade theory recognized the demand for freight services as an essential aspect of inter-regional trade. Although it has been criticized for paying undue emphasis on international trade and traffic policy with less emphasis on the large movement of cargo that occur within nations and the need for transport policy. The issue of location and trade flow has been suggested as an integral part of the theory (Losch 1963). For example, in his evaluation of freight movement in urban transport in Lagos, Ogunsanya (1981) identified four basic types of freight movement, these include:

- Metro – Import
- Metro – Exports
- Metro – Transits
- Intra – Metropolitan.

The Metro – Import is essentially the shipping of cargo into an area where it is consumed, while metro-export is the outflow of cargo produced in an area. Metro – Transit is regarded, as through traffic and Intra – Metropolitan comprises of collection, distribution and local shipment of cargo, in which both the vehicles and goods have their origin and destination within the same area. This is an aspect of logistic management in freight transport which complements trade theory in transport efficiencies. Another theoretical explanation for studies in shipping is the export-based theory. Export is the main instrument by which national economy can be improved. The theory which is among the economic based theories expresses the idea that growth of a region is directly dependent on the concept of International Trade Multipliers. The theory can be described as one of the earlier elementary theory of transportation based on export. Blumenfeld (2002), in his modification of economics based theory argued that what determine the economic as a whole is the service sector but not the basic or export sector. The ability of a region to sustain its economic depends on its ability to export goods and services to the rest of the world. Export based theory assumed that the total size of the economics activity of a region is a constant multiple of the export sector. The theory has a multiplier analysis on the service sector including transportation. Although, it can be applied descriptively in transport but it is economically inapplicable because it is not analytical in nature. In the same vein, its application to developing and undeveloped region can be invalid due to the import based economy of these regions. The mode choice theory of shipping firm is based on the based on the assumption that firm has utility functions and their behaviours are guided by those functions. The theory assumed that the cost and profit are influenced by modal attributes such as quick delivery, reliability, freedom from loss or damage etc. Ogwude (1997), using the Lancaster activity analysis framework for studying consumers behaviour assumed that shipping by a given mode is an activity in which modal qualities are input and the output are the amount of consignment shipped or delivered. The theory has been criticized based on its empirical application which results to considerable aggregations that obscured the analysis of the behaviour of individual shipping firm. For developing country like Nigeria, most of the attributed random variables are uncertain due to other transport situations such as unsafe roads, unreliable driving habit etc, and these are plausible reasons why an attitude toward risk is given as a probabilistic effect on profit of service attribute of a mode.

STUDY AREA AND METHODOLOGY

The study area is Oron in Akwa Ibom State, which comprises of five administrative unit or Local Government Area (LGA). The Local Governments are Oron, Okobo, Mbo, Udunko, and Urue-Ofiong

Oruko local Government Areas. The study cut across three of the L.G.A. Historically, Oron people migrated from the Southern Part of Cameroon to settle at the coastal region of the Cross-Rivers (Uya,1984). They have their ancestral linkage with the Ibenos, who also settles along the coastal region of Atlantic Ocean. Oron is located between latitude 4 30' -4 54' N, and longitude 8 15' E. Bounded in the north by Uruan (An Efik speaking area and part of Calabar Kingdom). In the southwest and in the west by Eket and Ibeno respectively Oron is located adjacent to the western bank of the estuary of cross rivers (low land), which is intersected by numerous streams and tributaries flowing into Cross Rivers. The river flows down to Calabar, Cameroon, Gabon, Equatorial Guinea and Sao Tome joining the open sea at the break water around Efiat in Mbo Local Government Area. The river makes the hinterland accessible by water of which local and foreign traders took advantage of since pre-independent period to transport their commodities like palm oil and kernel which are cheaply produced in the area. The utilization of Oron waterway seems inadequate for modern maritime transport as a result of certain inadequacies which include uneven bed, insufficient depth, non-availability of navigational aids, all of which constitute a barrier to safe navigation. Traders have to contend with the use of canoe propelled by out-board engines for transporting bulky goods which is usually risky and unsafe to lives and properties. In the recent times, many lives have been lost on this waterway. But in spite of the risk and lost encounter on the waterway due to operational challenges for boat operators, the volume of trade keep increasing, given rise to increase in the volume of traffic. The figure 1 below shows the map of the study area.

In the figure 1 above, five (5) Local Government Areas were considered looking at their closeness to the coaster area between Oron and Calabar- Cameroon and Ibaka- Cameroon axis. All the Local Government Areas are closer to the water bodies except Oruko LGA which has to connect to coaster areas through the use of any of the other four LGAs.

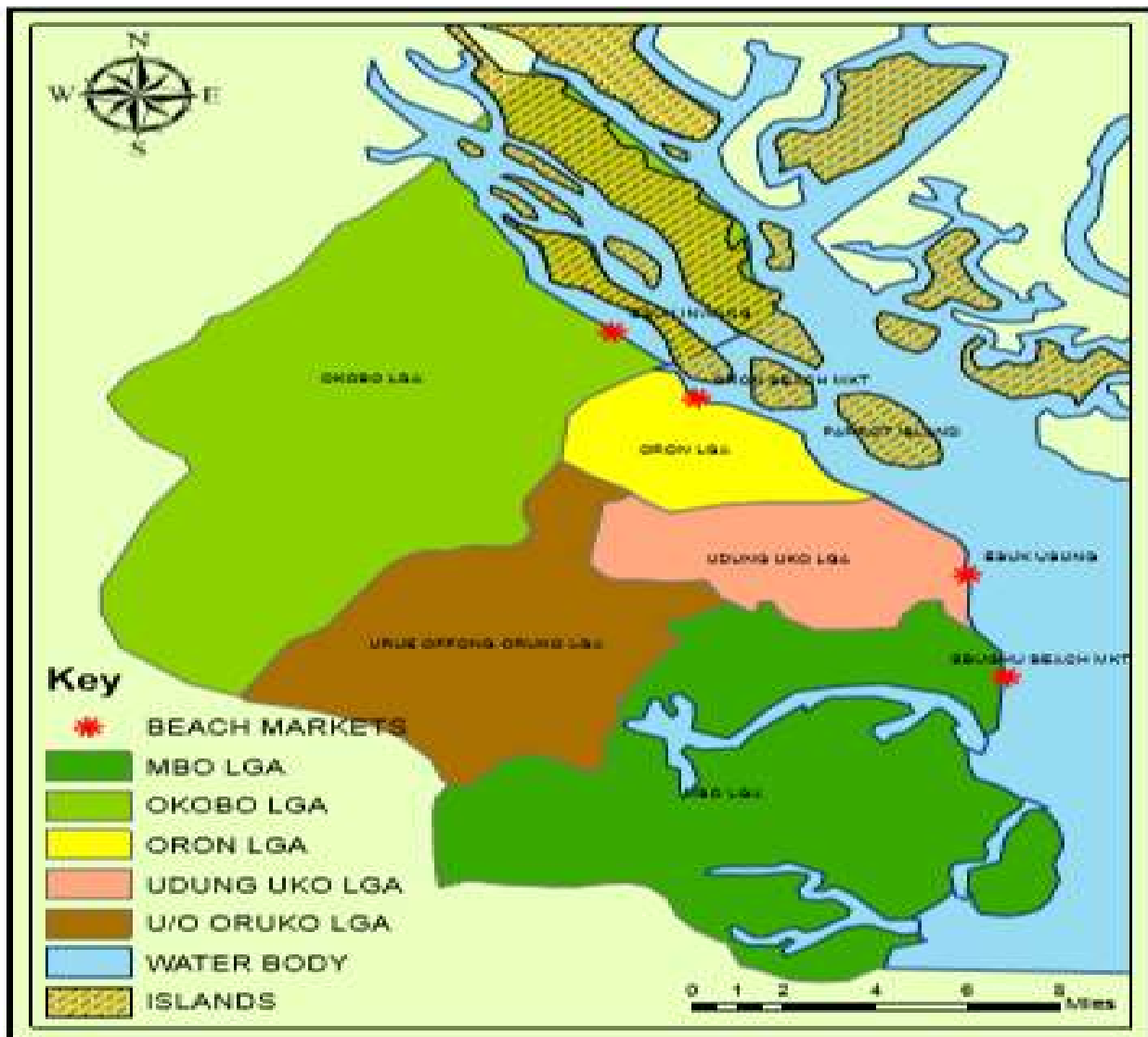
The total population of the people from the beaches = 3892

$$n = \frac{N}{1 + N(e)^2}$$

$$\frac{3892}{1 + 3892(0.05)^2} = 10.73$$

$$= 363$$

Based on the fact that, the trades are within the confine areas of the beaches, incidental and cluster sampling techniques were used to administer well-structured questionnaires to the respondents. 17 out of the 363 questionnaires removed as a result of failure to fill them properly, non-return and defacement. Basically, the assessment verified the quantity, type, packaging, origin, and destination etc, of the freight transported in and out of the area within the study period. Freight is usually classified into group depending on type, nature and materials.



Source: Authors' extraction (2019)

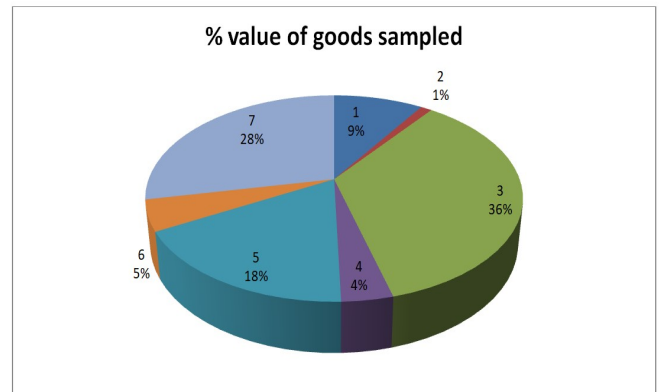
Figure 1. Map of the study area

However, this study used the Standard International Trade and Commodity (SITC) classification to categorize the type of goods being transported in the study areas. This is done to allow easy reference, grouping and identification of the different goods transported in the area. This classification according to Ogunsanya (1981) ranges from (00) to (100) as depicted below:

- (00) Food and live animals
- (10) Beverages and tobacco
- (20) Crude materials indelible except fuel
- (30) Mineral fuel lubricants and related materials
- (40) Animals and vegetable oil and fats
- (50) Chemicals.
- (60) Manufactured goods classified by materials
- (70) Machinery and Transport equipments
- (80) Miscellaneous manufactured articles
- (90) Commodities transactions not classified according to kinds

During the observational survey, research assistants were deployed to boat terminals to take inventory of the available goods in transit. This was done with the use of a prepared survey instrument (questionnaires). Due to the nature of the trade existing in the study areas, it was impossible to collect the data directly from the terminal operators as most of the goods traded especially the inbound are illegally entering the terminal.

packs were converted to their respective quantity which was in turn converted to their Naira equivalent values for both origins and destinations (see Table 1). Examining the results from table 1, the highest cost commodity coming to Nigeria from neighbouring country of cammeroon is timber having the total costs of 75million and 60 million respectively to Oron/Uya and Ebughu.



Source: Authors' field survey (2019)

Figure 2: % of value of goods sampled

Table 1. Origin and destinations of Goods in the Coaster Area

S/N	SIC CODE	SAMPLE OF GOODS	PACKAGIN G METHOD	ESTIMATED QUANTITY	Est Cost in Naira/Unit	Total Cost in Naira	ORIGIN	DESTINATION
1.	00	Cray Fish	Bags	200	60,000	12,000,000	Oron	Owerri/Aba
2.	40	Palm Oil	Drums	500	90,000	45,000,000	Cameron	Oron
3.	00	Dried Fish	Sticks/Bags	2405	Not specific	1,000,000	Ibaka	Aba/Onitsha
4	20	Timber	Unit	20,000	3,000	60,000,000	Cameroon	Ebughu
5.	50	Cosmetics/Toilet riers	Cartons	12,000		18,398,000	Aba (Oron Transit)	Gabon
6.	60	Used Clothes	Bales	250	200,000	50,000,000	Cameroon	Ibaka
7.	60	Roofing Sheets	Bundles	200	90,000	18,000,000	Cameroon	Esuk Inwang
8.	50	Ethanol	Drums	30	80,000	2,400,000	Aba (Esuk Usung transit)	Cameroon
9.	30	Fuel	Drum	200	29,000	5,800,000	Ebughu	Cameroon
10.	20	Timber	Unit	25,000	3,000	75,000,000	Cameroon	UyaOron
11	30	Fuel	Drum	288	29,000	8,352,000	Uya Oron	Cameroon
12	00	Dried Fish	Stick/Bag	305		1,000,000	Oron	Onitsha
13	00	Rice	Bags	100	25,000	2,500,000	Cameroon	Ebughu
14	50	Ethanol	Drums	200	80,000	16,000,000	Aba(Oron Transit)	Gabon
15	10.	Wine	Cartons	150	7,200	2,160,000	Cameroon	Oron
16	60	Roofing Sheet	Bundles	175	90,000	15,000,000	Cameroon	Ebughu
17	60	Used Clothes	Bales	120	200,000	24,000,000	Cameroon	Ibaka
18	40	Palm Oil	Drums	120	90,000	10,800,00	Gabon	Ebughu
19	00	Rice	Bags	300	25,000	7,500,000	Cameroon	Esuk Inwang
20	00	Cray Fish	Bags	180	60,000	10,800,00	Bakassi	Ebughu
21	40	Palm oil	Drum	120	90,000	10,800,00	Cameroon	Ibaka
22	10	Wine	Cartons	300	7200	2,160,000	Cameroon	Esuk Inwang
TOTAL ESTIMATED VALUE IN NAIRA = N380,270,000.								

Source: field survey (2019)

However, the field assistance through day long observations and interaction with the operators are able to complete the survey instrument. An attempt was made to quantify each package using relevant units such as kilogram for solid bulk goods while liquid goods were estimated in litres. However, there are loosed unclassified goods such as machinery, engines, plank etc these were treated as unclassified goods but the weight was estimated in kilogram. This was necessary to appreciate the economics of trade being transacted in the area in comparism with the Calabar Port which is in close proximity to the study area. After the collection of the data, a simple cross tabulation analysis was done to evaluate the regional implications of maritime trade in the study area.

RESULTS AND DISCUSSION

The SIC code of the selected goods in the coaster areas has been used to categorize them and the observable movements in their respective

The second rated item is used clothes from Cameroon to Ibaka with about 74 million in total. Palm oil, roofing sheets, wine and rice are other products in decreasing order import through these coaster areas into Nigeria. In a similar manner, the commodities that are moving out of these coaster areas back to Nigeria to places like Aba and Onisha are Dry fish and cray fish while ethanol, fuel and cosmetics/toiletries are the exporting products to the neighboring countries. The total percentages of sampled goods are presented figure 2 below. The figure indicated that seven (7) classes of goods were transported during the ten days assessment survey using the Standard International Trade and Commodity (SITC) classification. The classifications are 00, 10, 20, 30,40,50 and 60. Specifically, the goods include crayfish, assorted fishes, bags of rice, bale of used clothes, drums of palm oil, drum of ethanol/local gin, fuel, timber etc There are also domestic products such as Cosmetics, toiletries etc. The figure shows that, SITC code 20 has the largest percentage of the goods considered with 35% followed by SITC code 60 with 28%.

Respectively SITC 40, 00, 50 and 30 have 18%, 9% 5% and 1% in descending order. From the findings of these coaster trade transactions, table 2 below is generated. Table 2. Comparative Items exchange between Nigeria and Neighboring countries in the area under study. The table 2 above indicated that more goods are coming to Nigeria from the neighboring countries than it goes out from Nigeria.

Table 2. Comparative Items exchange between Nigeria and Neighboring countries in the area under study

S/N	Nigeria	Cameroon and Gabon
1	Fuel	Timber
2	Cray fish/Fish	Palm oil
3	Ethanol	Wine
4	Cosmetics	Roofing sheets
5		Used clothes

Source: Authors' output based survey (2019)

Secondly, except fuel, Nigeria's exported items are of lesser values compare to those items imported from the neighboring countries of Gabon and Cameroon. Table 3 shows the 7 years aggregates in millions of the values of commodities using SITC codes of various coaster areas identified.

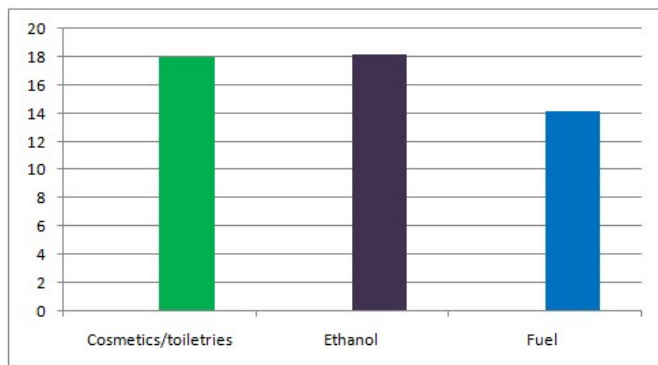
Table 3. Pattern of movement of goods from Cameroon & Gabon to Nigeria through coasters areas in Akwa Ibom State

O/D	Oron/Uya	Ebughu	Ibaka	Esuk
Cameroon/Gabon timber	75	65	-	-
Used clothes	-	-	74	-
Palm oil	45	10.8	10.8	-
Roofing sheets	-	-	-	18
Wine	1.6	-	-	1.6
Rice	-	10	-	-
Cray fish	-	10.8	-	-

Source: Authors' field survey (2019)

The number of items identified cannot be ascertained from Cameroon and Gabon to some coaster areas in Akwa Ibom State, however; the table shows that, Oron and Ebughu are the major routes for timber importation to the State. Similarly, the three coaster areas of Oron/Uya, Ebugu and Ibaka are channels for palm oil transactions into Nigeria coaster areas. The table confirmed that, Oron and Esuk are the areas where there are influxes of wine into the axis of Nigeria. Mainly roofing sheets used to come from Esuk coaster area through Cameroon to Nigeria. Also, about 10.8 million worth of cray fish used to emanate from Cameroon to the coaster area of Ebughu in Akwa Ibom State, Nigeria.

Pattern of movement of goods Akwa Ibom State through coasters areas to Cameroon & Gabon is depicted with the figure 3 below



Source: Authors' survey (2019)

Figure 3. Movement pattern of goods from Nigeria coaster areas to neighboring countries

Figure 3 revealed the transactions worth in millions of trade between coaster areas under review and the republic of Cameroon and Gabon. The results showed that, ethanol, cosmetics and fuel are respectively the commodities being exported through the coaster areas to the neighboring countries.

Implication of findings and Recommendations: The findings from this analysis revealed the type and direction of coaster trades in the identified study area. Nigeria through its coaster water is a huge market for the neighboring country. The Nigerian coaster waters have not been fully and formally harnessed to realize the great potentials of exchanging commodities with the neighboring countries. The neighboring countries are more beneficial as compare to number and kinds of goods being exported to Nigeria. There will be need for Nigeria developing her tree plantations, the need for protectionism against used clothes importation and making use of indigenous companies to manufacture roofing sheets. All these commodities are the draining the economy of the country against the neighboring countries. However, it has been said that no country can produce all she needs across and there will always be reason for exchange of goods and services. Nonetheless, the consideration for terms of trade and balance of payment must be monitored for the purpose of economic progress. The coaster shipping is in crude form and needs to be properly regulated. The Coastal and Inland shipping Act of 2003 should be reviewed to capture and reflect operational modalities for coaster shipping across various jetties and inland waterways in Nigeria. The Nigerian Inland Waterways Authority, Nigerian Maritime Administration and Safety Agencies and other relevant agencies like Nigerian Ports Authority and Nigerian Customs Service are to see to coaster and inland waterways border security and smuggling related offences to really project the economy in a good condition.

REFERENCES

Adam Smith (1937). An inquiry into nature and cause of the wealth of Nations. Random House, New York

Akgul E.F and Cetin I.B (2018). The Analysis of Coaster Market and Turkish Coaster Fleet: A Short Sea Shipping Perspective II. International Symposium on Economics, Finance and Econometrics, December 6-7, 2018, Bandırma/Balıkesir

Badejo, B.A (1998): Freight Forwarding In Nigeria: Problems and Prospects; Journal of Transport Development Initiatives Vol.1.No 1 (71-79)

Balduini, G., (1982). Italy. in: Short-Sea Shipping in the Economy of Inland Transport in Europe: A Report of the Sixtieth Round Table on Transport Economics Held in Gothenburg, Sweden. (Washington Dc: Oecd Publications And Information Centre), Pp. 37-65.

Berry BJL (1966) Essays on Commodity Flows. Department of Geography Research Paper No 11, University of Chicago.

Blumenfield, S, Crawford A, Walsh P (2002); Globalisation, Trade, and Unionisation in an open economy: The case of New Zealand. International Employment Relations Review, 8,1. Pp 71-82.

Botha and Filani (2006): Call Down framework for Non-transaction Initiatives, National Council on Privatization Bureau of Public enterprises; Key intermodal issues pg 5

Enke, S (1951). Equilibrium among Spatially Separated Markets; solution by Election Analogue. Econometric, Vol. 19, Pp 40 - 47

European Conference of Ministers of Transport, 1998. Report on the Current State of combined Transport in Europe, Paris.

Holsman A.T (1979). Freight flows in the Australian Economic Australian Geographical Studies, Vol. 17, No. 2, Pp 13 – 154

Losch August (1963). The Nature of Economics Regions. Southern Economic Journal Vol. 293

Ogunsanya A.A. (1981). Spatial Pattern of Urban Freight Transport in Lagos Metropolis. Transport Research Vol. 16A, No. 4, Pp 289 – 300

Ogwude I.C. (1997). Freight Transport Demand of Industry in Nigeria. NITT. Zaria

- Oyesiku and Gbadamosi (2004) Port Administration and Development in Nigeria (ed)
- Reuvid and Sherlock (2008). Handbook on International Trade-A Guide to the Principles and Practice of ExportSECOND EDITIONPublished in Association with:The Institute of Export
- Rostow w.w (1971) Politics and Stages of Growth
- Samuelson P. (1952). Spatial Prince Equilibrium and Linear Programming. The American Economic Review Vol. xl 11, No. 3, Pp 283 – 303
- Stubbs et al (1980). Transport Economics George Allen and Unwin, London
- Ullman, E.L (1957).American Commodity Flow. University of Washington Press. Seattle
- UNCTAD (1997), Review of maritime transport, New York and Geneva
- Uya, E.O (1984). History of Oron. Manson Publishing Co
- WTO (1998) in Ma Shuo (2000). Maritime Economics. World Maritime University Malmo
- Zhang. R and Roe. M (2018). Maritime Container Port Security: USA and European perspectives Palgrave Macmillan
