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THE SOCIO-ECONOMIC IMPACT OF BOAT-JACKING ON INLAND WATERWAYS IN THE NIGER DELTA REGION OF NIGERIA.

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ABSTRACT

This study analysed the prevalent threat and challenges of boat-jacking along the inland waterways of the Niger delta region of Nigeria and the study aims to assess the impact of boat-jacking along the inland waterways of the Niger delta, with the objectives to determine the relationship between Boat-Jacking Poor Economy and increase in IWW crimes. A cross-sectional survey design was employed and with the use of the Krejcie and Morgan table, the size of the known population was determined as 4,130 and the sample size as 897, hence 897 questionnaires was administered using the convenience sampling technique, the results were analysed using the SPSS version 25, The crime of boat-jackings committed along the inland waterways of the Niger Delta, The findings of the study showed that the independent variables, which is Boat-jacking, has significant relationships with the measures of the dependent variable; socio-economic impact (SEI), which are Poor Economy and Increasing IWW crimes (IIC). It recommends a Synergy amongst relevant security agencies operating in the region to effectively curb the criminal acts of boat-jacking, the establishment of strategic, well-trained Anti-Boat-jacking military quad, with adequate weaponry, funding and mandate to constantly patrol the waterway for rapid

response to Boat-jacking crimes and deal decisively with criminals who engage in Boat-jacking and robbing of travellers along the waterways and the Nigerian maritime space.

Keywords: Maritime; Inland; Waterways Crimes; Niger Delta; Boat-Jacking; Poor Economy

1.0 INTRODUCTION:

The activities of criminal elements in the Niger Delta region of Nigeria, especially along the inland waterway had been an issue of great concern to dwellers at the region and the government. From ancient times to date, the Water mode of transportation has been a prominent means of movement in the region. Water transport is the primary means of transporting passengers and cargo from origin to destination. It is a very vital mode of transport which is segmented into the sea or Maritime and Inland waterway sub-modes of transport. The inland waterways transportation (IWT) is a key aspect of the water mode of transport and an indispensable component of the intermodal transportation network which is essential to the development of Niger delta and the entire Nigerian economic environment. Adejare et al., (2013) affirmed this assertion when they said that IWT had played a very significant role in the states that are endowed with lots of rivers.

The Inland waterway has great potentials with immerse benefit, however, it had been bedeviled by several challenges which finds it root from fundamental neglect by successive Nigerian government to the socio-economic menace of boat-jacking which had drastically affected the entire Niger delta water transportation system in terms of utilization and patronage, even though the inland waterways transport (IWT) system is relatively less expensive, cost-wise and operationally. It is also an effective and efficient means of passenger and bulk goods movement globally. The obvious fact that the Niger delta region has several water-locked communities which are only accessible through the waterways, makes the Inland Waterway serves as the bridge, and in some cases, the only available access to these towns and villages thus revealing the indispensability of the inland waterway transport in such terrain. Obed (2013) observed that Nigeria has the second longest waterways in the continent of Africa, with about eight thousand six hundred

kilometres (8,600km) of inland waterways lengthwise and an extensive coastline of approximately eight hundred fifty-two kilometres (852km).

The Nigerian inland waterways transverses from the East and West of the country as River Niger and River Benue and both meets at Lokoja forming a confluence from where it flows downward to the southern part through the Niger delta into the Atlantic Ocean, where it serves as link to international waters, precisely into Gulf of Guinea. There is also the coastal water-highway that cuts across the coast from Badagry, in Lagos state, through to Warri, Burutu, Bomadi, then from Patani in Delta state, it runs into Adagbabiri in Bayelsa state, then as far as to Calabar in Cross Rivers state. These waterways had been plagued by diverse crimes. Ukoji (2016) said that Nigeria is presently caught in a web of crimes manifesting as an increasing phenomenon of violent and non-violent crimes and listed one of the prevalent crimes as armed robbery. His assertion is correct, as the perpetrators of boat-jacking are water-way armed robbers who are equipped with sophisticated weapons and use very fast flat-bottom boats to out-run and overwhelm their prospective victims. They utilize the terrain's topography and vegetation coverage around the Inland waterways to carry out their clandestine and nefarious criminal acts. Thus, making the waterways a den of crime. With the increasing innovative dimensions to these crimes, the once existing natural safety of the waterways has been compromised and almost no longer exists, as Boat-jacking crimes are rampant. Boat-jackings are a syndicate crime committed for the criminals' personal gratification or group ambition and are punishable by the law if caught or found guilty by any competent court of law. Despite the vital role of inland waterways in the Niger Delta, the increasing prevalence of boat-jacking poses a significant threat to the socio-economic well-being of the region. This study, therefore, seeks to analyse the socio-economic impact of boat-jacking along these waterways. The aim of the study is to assess the socio-economic impact of boat-jacking along the inland waterways of the Niger delta region of Nigeria. While the objectives of this study include:

1. to determine the relationship between Boat-Jacking and the Poor Economy.
2. to determine the relationship between Poor Economy and an Increase in IWW crimes.

1.1 RESEARCH QUESTIONS.

Some very vital and pertinent questions arise here in relations to the impact of perceived or existing criminal activities of Boat-jacking along the inland waterway routes in the Niger delta of Nigeria and its socio-economic impacts to which answers are to be proffered. The relationship between Boat-jacking along the inland waterway environment of the Niger delta region of Nigeria and its economic impacts cannot be ascertained without considering the variates that constitute the measures and dimensions. The pertinent questions essential to the study from the already stated objectives include:

Q1. What is the relationship between Boat-Jacking and Poor Economy in the study area?

Q2. What is the relationship between Poor Economy and an Increase in IWW crimes in the study area?

1.2 RESEARCH HYPOTHESES

1. There is no significant relationship between Boat-Jacking as a criminal activity along the inland waterways and Poor Economy in Niger Delta Region.
2. There is no significant relationship between Boat-Jacking as a criminal activity along the inland waterways and increase in crimes in Niger Delta Region.

1.3 SIGNIFICANCE OF THE STUDY

One of the major significances of the study is that it serves as a bridge to gap in knowledge and develop the connection between Boat-jacking and the increase of crimes along the IWW of the Niger delta Region. It viewed the crime of Boat-jacking from a holistic viewpoint with a focus on the inland waterway environment. It reveals the relationships that exist between Boat-jacking along the Inland Waterways (IWW), the economy and the increase in crimes in the region. This study would be of immense help to maritime security operatives and experts in policy formation toward their stride to curbing the crime rate of Boat-jacking the Niger delta Region and the entire Nigerian nation. It could also aid in the making of Boat-jacking crime related decisions and can serve as a source of knowledge

about how Boat-jacking affect the people and economy of the Niger delta. Finally, it will be useful to educators and other researchers.

1.4 SCOPE OF THE STUDY

The study was carried out in the Niger Delta region of Nigeria and precisely focused on Delta, Bayelsa and Rivers' states, which constituted the three core states that formed the true Niger Delta in Nigeria. Oku, (2003), asserted that the geographical space known as the Niger Delta consist of the area referred to as the 'geographical Niger Delta' or 'true Delta of the River Niger' which comprises of parts of Rivers state, Bayelsa state and Delta states. An area covering about 25,640km2 which is about one-thirty-sixth of the total area of Nigeria.

1.5 LIMITATIONS OF THE STUDY

The data cannot be said to be a hundred percent (100%) accurate due to the possibility of using some incomplete and inconsistent records emanating from the possible subjectivity of some respondents. Also, some respondents demonstrated general apathy due to the wrong perception that the work has to do with the government, resulting in our making frantic efforts to disabuse them of that mindset, others demanded cash before filling the forms, which brought to the fore the constraint of inadequate funds to carry out the study, but were persuaded and convinced that the information sought was strictly for academic purposes, would be treated with utmost confidentiality and would benefit them in the long run. Despite these limitations, the data obtained for this study have adequate validity. The resultant error is assumed to be insignificant due to the sample size used, and only those records found complete and consistent were considered for the study.

1.6 THE STUDY AREA

The Niger Delta is a complex area viewed by some as the 'Political Niger Delta', which encompasses some states in within three geopolitical zones, viz; the South-West, the South-South and the South-East. This view culminated from Niger Delta Development Commission (NDDC) conceptualization and accommodated all oil producing states and

others considered relevant for administrative convenience, political expediency and developmental objectives. It defined the Niger Delta to consist of nine states made of one hundred and eighty-five (185) local governments and extending the land area to seventy-five thousand (75,000) square kilometers. The Niger delta has about seventy thousand kilometres square (70,000km^2) of landmass and about thirty thousand kilometres square (30,000km^2) of wetland of global ecological significance having a dense network of rivers and creeks, that maintains the delicate but dynamic equilibrium which exists between the saline waters, estuarine and freshwater surface bodies with the complex underground extensions. According to citipopulation.de (2020) the estimated 2016 population of the political Niger delta was put at forty-two million, five hundred and eighty-three thousand (42,583.000) inhabitants, Whereas the population for the geographical Niger delta states was fifteen million, two hundred and forty-five thousand, one hundred (15,245,100). Doust, H., & Omatsola, E. (1989). said that the "The delta is one of the world's largest, with the subaerial portion covering about 75,000 km² and extending more than 300 km from apex to mouth".

2.0. CONCEPTUAL/THEORETICAL FRAMEWORK

The Routine Activity Theory (RAT) studies how the movements of individuals through space and time create opportunities to commit crime. RAT Wikipedia (2020) was developed by Marcus Felon and Lawrence Cohen. They drew the line from the control theories and explained that every day, crime occurs due to crime opportunities. The routine activity theory adherents believe that crime is inevitable and is committed as long as the target is attractive enough and there is an opportunity to effectively execute the crime, then crime will happen; to prevent its occurrence, effective measures must be in place to deter crime from happening.

2.1 BOAT-JACKINGS (BJ) AS THE DIMENSION OF THE INDEPENDENT VARIABLE

A boat is a small vessel for travel on water, or a Ship. It is a boat-shaped container, utensil, or device, sometimes referred to as a small ship or watercraft, designed with different

materials and of varying form and sizes. They are commonly being used to transverse the Niger Delta waterways into the national coastal waters and beyond. These boats have often been attacked by robbers and criminals who operate along the waterways and rob the occupants. In the high sea, this criminal act is known as a sea pirate attack or piracy. Piracy, according to the U.N. Convention on the Law of the Sea (UNCLOS), is any form of illegal acts of violence or detention, or any act of depredation, committed for private ends by the crew or the passengers of a private ship or a private aircraft, and directed on the high seas:

(i) Against another ship or aircraft, or against persons or property on board such ship or aircraft. (ii) Against a ship, aircraft, persons, or property in a location outside the jurisdiction of any State; (b) any act of voluntary participation in the operation of a ship or an aircraft with knowledge of the facts rendering it a pirate ship or aircraft; (c) any act of inciting or intentionally facilitating an act described in subparagraph (a) or (b).

The criminal act of hijacking boats is referred to as Boat-jacking in this study and is derived from the evolution of the term 'Piracy' to accommodate the activities of pirates along the internal waters of any state. This term, piracy, is often referred to as armed robbery when it occurs along the inland waterways; however, it encompasses all the criminal activities that pirates undertake on the high seas. Due to the nature of the inland waterways, its tributaries in the Niger Delta, and the flow pattern into the Gulf of Guinea, which serves as strategic hideouts for pirates, the Gulf of Guinea is currently a hotbed for pirate activities in the world. It is a known fact that the pirates operating in this zone move from the inland waters outward into the high seas and vice versa. This is evident in the first and second quarter reports of the International Maritime Organisation (IMO) for 2018, which ranked Nigeria among the top countries with the highest recorded cases of attacks against vessels. The assertion by the International Maritime Organisation (IMO) deviated from the original definition that attributes piracy to the high seas. Previously, piracy did not have state jurisdiction but the American Congress passed the Crimes Act of 1700, which defined piracy in five articles, with two key sections, the first of paramount importance to the study vis-à-vis.

> "If any person or persons shall commit upon the high seas, or in any river, haven, basin or bay, out of the jurisdiction of any particular state, murder or robbery, or any other offence which if committed within the body of a county, would by the laws of the United States be punishable with death; or if any captain or mariner of any ship or other vessel, shall piratically and feloniously run away with such ship or vessel, or any goods or merchandise to the value of fifty dollars, or yield up such ship or vessel voluntarily to any pirate; or if any seaman shall lay violent hands upon his commander, thereby to hinder and prevent his fighting in defense of his ship or goods committed to his trust, or shall make a revolt in the ship; every such offender shall be deemed, taken and adjudged to be a pirate and felon, and being thereof convicted, shall suffer death; and the trial of crimes committed on the high seas, or in any place out of the jurisdiction of any particular state, shall be in the district where the offender is apprehended, or into which he may first be brought." (Lakin Thibiebi, 2018).

According to IMO by Lakin, it states that the acts adjudged to be an act of piracy could be committed in the high sea, any river, basin or bay and not just the high sea. Also, it clearly stated that those who commit such acts, although within the territorial waters, shall be adjudged and prosecuted as pirates. Having critically views the statements of parliamentary backing of these congressmen, it is glaring that a pirate could be a revolter or riotious fellow in the ship, a ship captain who refused to defend his ship, one who hinders or prevent his commander from fighting in defense of his ship or goods, a captain who voluntarily yield his ship or vessel to any pirate, any person who commit murder or robbery on board a vessel. Also, the pirate activities could be in the high seas, or in any river, haven, basin or bay, this clarifies the fact that criminal activities committed along the inland waterways which falls under the phrase 'ANY RIVER', makes it clear that pirates activities take place in the inland waters also, and finally that convicted pirates shall be punishable by death.

2.2 SOCIO-ECONOMIC IMPACTS AS THE DEPENDENT VARIABLES

According to Encyclopedia.com (2021), emphasizing the title, Economic and Social Effects of Crime, it stated two basic categories being used in categorizing the term 'economic impact of crime': these are the primary and secondary crime impact, and they are also known as direct and indirect economic effects, respectively. They are illustrated in Figure 1 as follows:



Fig.1: Total Economic Impact of Crime

The primary economic impact view criminal offences on individuals, households, the commercial sector, companies and the public sector or society in general. Also, the cost for mitigating against crime as well as the expenses on the consequence of crime are all primary impact while secondary impact is where the effect of the crime led to financial or physical damage and prevention costs and indirectly affect either any or all the three tiers of government and the national economy of the country. The effect is poor economic system in the Nigerian state and consequently the Niger Delta which reflected in the level of unemployment and underemployment which also affect the earnings of the people and result in low income, poor access to good educational facilities and social amenities and further exacerbated the impact of crime. The resultant effect, summed up in the two words, 'unemployment and under-development', is the focus of this study as the measures for economic impact.

2.3 POOR ECONOMY (PE) AS A MEASURE OF THE DEPENDENT VARIABLE

The economy of the Niger delta is a microcosm of the entire Nigerian nation, For the Niger Delta dwellers, their economy is best described with words like, unemployment, balkanization and high level of poverty despite the natural endowment with oil and gas all over the region. Multinational oil companies are usually reluctant to employ locals on the ground because they lack the required skills (Turner, 1980: 201; Bierstecker, 1987: 241).

The Niger Delta region represents a paradox of sort in the sense that, the region produces the country's wealth, yet its people live in poverty. The poverty and unemployment rate within and amongst Niger delta youth is alarming. Boat

Driving has been and is one of the largest employers of young people in the region, but the criminal act of boat-jacking has dissuaded a lot of them from continuing in the trade, resulting in unemployment and poverty. The state of poverty in some of the communities in this region is terrible such that some households cannot afford one meal per day and depend on their daily fish catch for sustenance, which they execute with fear of being attacked along the inland waterways.

2.4 INCREASE IN CRIME (IC) AS A MEASURE OF THE DEPENDENT VARIABLE

Femi Folaranmi, Yenagoa, writing on The SUN newspaper of 20th March 2018 expressed the opinion of the Niger Delta youths under the umbrella name of Pan Niger Delta Youth Leadership Forum (PANDLEAF) as contained in a communique where they affirmed that the Niger Delta region has remained poor and underdeveloped despite trillions of Naira appropriated and expended by the Federal and state governments as well as other intervention policies, and they attributed the reason for this anomalies to be due to lacked visionary leadership.

3.0 METHODOLOGY

The methodology adopted in this study aims at effectively collecting data along the inland waterways of the Niger delta of Nigeria. To achieve the purpose of the research, a structured questionnaire was designed and effectively shared within the study area to get feedback from respondents. Open-ended questions were also used in oral interviews and designed for stakeholders to objectively assess and give their opinion on the crime status and suggested solutions to reduce or eliminate criminal activities along the inland waterway routes in the Niger Delta of Nigeria.

3.1 RESEARCH DESIGN

The research design employed for this research is Descriptive research design. The research design philosophy harps on the methods of gathering, collating and analyzing of data, using the structured questionnaires to evaluate the true situation in relation to criminal activities occurring along the commercial routes of the inland waterways in the Niger delta, in Nigeria. As earlier stated, due to the largeness of the Niger Delta area which comprises all the nine states, the study focused on the core states of the Niger delta which are Delta state, Bayelsa state and Rivers state.

This study focused on global maritime security threats and challenges of boat-jacking along the inland waterways of the Niger delta. The menace of criminal activities along commercial waterway routes of the Inland waterways in the Niger delta concerning its economic impacts and increasing crimes. Therefore, due to the nature of the research, the data was based on Global maritime security: threats and challenges with focus on boat-jacking along the inland waterways of the Niger delta. To execute this enormous work, data was drawn from primary and secondary sources. **T**he primary source provided first-hand information regarding the subject under investigation. They are created by witnesses or recorders who experienced the events or conditions being investigated and documented. Primary sources could include autobiographies, memoirs, and oral histories recorded later and are characterized by their content, regardless of whether they are available in original format, in microfilm/microfiche, in digital format, or in published format (Yale University (2015). To effectively execute this research, primary data was obtained from a cross-sectional survey design carried out by the researcher to identify the criminal act of Boat-jacking and its economic impact along the waterways of the Niger Delta.

Structured questionnaires were designed and administered to the boat operators, pilots or drivers, boat owners, administrative personnel and passengers using the inland waterways system. The structured questionnaires had section A, which dealt with the Biodata of respondents, encompassing aspects that indicate the validity of the survey and that they answered by respondents of various ages, sex and state of origin. Section B examined the roles of the respondents in the inland waterways sector, and Section C dealt with the core issues relevant to the study that unveiled the Boat-jacking impact in the study area. The

observations of the information are from the eight hundred and ninety-seven questionnaires administered meticulously to the boat operators, pilots or drivers, boat owners, administrative personnel and passengers who were actively involved in the patronage of the inland waterways system. The Secondary data used were available information as regards the study in form of journals, information on the internet and governmental archives to effectively carrying out this research on the economic impact of boat-jacking along the inland waterways of the Niger Delta Region in Nigeria, information was source for from academic journals, textbooks, and the internet.

3.2 POPULATION OF THE STUDY

In determining the population for this study, I carried out a pilot survey on the three core states that comprise the true Niger delta according to the study and got the population as four thousand, one hundred and thirty (4130) and it consist of:(i) Boat operators or drivers;(ii) Officials of the maritime workers' union of Nigeria, members of the Nigeria institute of shipping (stakeholders in the shipping industry);(iii) Fishermen and (iv) Passengers who traverse the waterways using various watercrafts.

Table 1: Showing the concise representation of the study population on a state basis

State	Boat Operators	Fishermen	IWW Officials	Passengers	Population	Sample
Rivers state	180	600	32	840	1652	313
Bayelsa state	157	525	28	735	1445	306
Delta state	113	375	20	525	1033	278
Total	450	1500	80	2100	4130	897

Source: Researcher pilot survey (2023).

3.3 SAMPLE AND SAMPLING TECHNIQUES.

The sample size was derived as eight hundred and ninety-seven (897) which is a cumulative of the deductions from the three core Niger Delta states with 313 from Rivers state, 306 from

Bayelsa state and 278 from Delta state respectively using the Krejcie and Morgan (1970) table. For a detail and concise representation of how the sample size was deduced, the three core states of the Niger delta as seen in were considered in isolation; Rivers State had a population of 180 boat operators, 600 fishermen, 32 IWW officials, 840 passengers per day and a total population of 1652, 313 was derived as the sample size. Also, Bayelsa state had a population of 157 boat operators, 525 fishermen, 28 IWW officials,735 passengers per day and a total population of 1445 from which we 306 was derived as sample size and Delta state had a population of 113 boat operators, 375 fishermen, 20 IWW officials, 525 passengers per day and a total population of 1033 hence, 278 was derived. Hence, the sum of 897 was observed as the sample size for the study.

3.4 METHOD OF DATA COLLECTION/INSTRUMENTATION

The instrument used to gather data was Questionnaires on 'Criminal Activities Along the Inland Waterways of the Niger Delta' (CAIWW) as well as personal interviews, telephone interview and direct observations. The data were personally collected by the researcher and some recruited field assistants who underwent briefing and orientation to achieve the aim and objectives of this research and to enlighten their understanding of the modalities for effective administration and retrieval of filled data forms. Two units went missing during the study. Statistical analysis, which entails the deployment of statistical packages for social sciences (SPSS) version 25, which deploys statistical tools like the Mean, Standard deviation, was used and Simple Regression analysis for the Hypothesis Testing on the Bivariate Analyses on the two hypotheses of the research.

3.5 THE MODEL

The model used in this research is the Linear multiple regression (MLR) Analysis. The primary goal of MLR is to model the linear relationship between the independent variable and the dependent variable. It is therefore the ordinary least squares (OLS) regression that entails more than one independent variable. A Statistical package for the social sciences (SPSS) software package, which can execute statistical analysis was used to perform Descriptive statistics here including the making of cross-tabulation, mean, T-test, and Linear regression. It has a two-dimensional table pattern, the row and the column. The response variable of interest is categorical

or discrete, not continuous. In such cases, a simple transformation cannot produce normally distributed errors. A common example is when the response variable is the number of occurrences of an event. The distribution of counts is discrete, not continuous, and is limited to non-negative values.

Table 2: Showing participation of respondents on roles basis.

S/N	Roles in the IWT	Number of Respondents	%
1	Boat Pilot/Driver	77	8.58
2	Fishermen	248	27.65
3	Passenger	540	60.20
4	IWT Administrative Personnel	32	3.57
5	Others	0	0
	Total	897	100.00

Source: Researcher (2023)

Table 2 shows the percentage spread of respondents involved in the survey, and that passengers were the highest with 60.20%, they are constant users of the waterways who are conversant with events and happenings along the routes, and some are equally victims of such criminal activities. The fishermen were the next with 27.65%, followed by Boat Drivers with 8.58%, and the least was 3.57% for the administrative personnel working in the IWW sector.

3.5.1 Notes on the KMO and Bartlett's Test Table

The Kaiser-Meyer-Olklin Test (Table 3) for all thirty-four (34) items is used to ascertain whether the data extracted from the field could give us more than one distinct variable or not. According to Kaiser (1974), the KMO should not be less than 0.6, as at 0.6, there is the possibility of dividing the responses of the respondents into factors or constructs. Factor analysis is possible at 0.6. On the other hand, Bartlett's test has to do with the possibility of realizing a correlation matrix of the factors or constructs. This means that, if the Null Hypothesis is that there is no correlational matrix of the variable, the significant relationship must be more than 0.05 - Bartlett

(1954). This also means that various variables can be extracted from the responses. On the above table, the KMO is 0.830, which is termed as a very good result - Hutchison and Sofroniou (1999). This good result presupposes that more than one distinct variable could be obtained from the responses of the respondents. The P-value of < .01 signifies that different types of variables could be extracted from the responses. Variables like Independent, Dependent and Moderating variables could be defined from the responses or constructs or factors.

Table 3: KMO and Bartlett's Test Result for Factorability and the General Correlation matrix for the thirty-four (34) Items

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.830
Bartlett's Test of Sphericity	Approx. Chi-Square	24371.585
	Df	561
	Sig.	.000

Source: Researcher's Assumption Testing result 2023 with SPSS version 25, window output.

4.0 RESULTS AND DISCUSSIONS

In this chapter, data obtained from respondents were collated and subsequently, data cleansing was made, and frequency tables were extracted from the data. The mean of each table was determined, upon which rejection or acceptance of the response was concluded. The rejection or acceptance was based on the teliscon rule, which is decided upon by taking the sum of the options presented in a Likert scale as; strongly agreed for 1, agreed for 2, not sure for 3, disagreed for 4 and strongly disagreed for 5. So the summation is 1+2+3+4+5 =15 and 15 divided by 5 =3. Therefore, 3 becomes the defining mean to either accept or reject the response data.

4.1 DEMOGRAPHIC PRESENTATION OF DATA

Table 4 shows that out of the eight hundred and ninety-seven (897) respondents, about thirty-one point two percent of them were between the age bracket of 26-35 years, as the highest Age grade

involved in the research. This was followed by those of ages 16-25, with about 25.98 %. And followed by those at the age bracket of 36- 45 years, having 20.6 %, those of the age bracket of 46- 55 years was 15.1% and the more elderly ones above the age of 56 years were a mere 7.13%. Efem N. Ubi (2007) asserted that according to the UN and World Bank, youths are those between the ages of 15-24 years, and for the Commonwealth, it is between age bracket ages of 15-29 years. But for some countries like Nigeria, Ghana, Sierra Leone and Senegal, the age was extended to 35 years. Taking from this premise and looking critically at the result, those of the age bracket from 16years to 35years gave a total of 57.2% which implies that youths and that young adults form the age grade that are more involved in the operations of the inland waterways transport system of the Niger Delta Region of Nigeria.

Table 4: Age Distribution

Years	Frequency	Percent	Valid Percent
16 Years -25years	233	25.98	25.98
26 Years -35years	280	31.22	31.22
36 Years -45years	185	20.62	20.62
46 Years -55years	135	15.05	15.05
56 Years –Above	64	7.13	7.13
Total	897	100	100

Source: Researcher's Demography, 2023

Table 4.1 Educational background of the Respondents:

S/N	Educational level attained	Frequency	Percent	Valid Percent
1.	Basic Education (Non-Formal)	0	0.00	0.00
2	Elementary School	2	0.22	0.22
3	Junior Secondary School	8	0.89	0.89

4	Secondary School	229	25.53	25.53
5	Above Secondary School	658	73.36	73.36
	Total	897	100.00	100.00

Source: Researcher's Demography, 2023

Table 5 above shows the percentage educational level of those involved in the research. Those with Basic Education, that is, non-formal educational training, were nil, while only 0.22% had Elementary education, with 0.89% who could not complete their senior secondary school but have Junior WAEC certificate, and those who completed their senior secondary school education were 25.53% of the Boat pilots. Those who had education above the secondary school level, which includes the Monotechnic, Polytechnic and university educational level, formed the largest group of Boat operators/Drivers with 73.36%, thus implying that those involved in pilotage services are educated and enlightened.

Table 6: Showing participation of respondents on a role basis.

S/N	Roles in the IWT	Frequency	Percent	Valid Percent
1.	Boat Pilot/Driver	98.0	10.93	10.93
2	Fishermen	326.0	36.34	36.34
3	Passenger	456.0	50.83	50.83
4	IWT Administrative Personnel.	17.0	1.90	1.90
5	Others	0.0	0.0	0.0
Total		897	100.00	100.00

Source: Researcher's Demography, 2023

Table 6 shows the percentage of the various major role functions of individuals involved in the research. Boat pilots/Drivers were 10.93%, Fishermen were 36.34%, while passengers formed the largest group with 50.83%, and the Inland waterways administrators/officials were 1.9%. It revealed that passengers plying the various routes along the inland waterways are very important to the economy and sustainability of the system as they form the largest percentage of those involved in the inland waterways system.

Table 7: Showing the 'Responses, SD, Expected Mean, Actual Mean and decisions to the sub-research questions

Sub-Research Question	Responses SA	AG	N	DA	SD	Expected Mean	Actual Mean	Decision
Q1. Unlawful seizing Acceptance of a boat along the inland Waterways lead to a loss of money.	599 234	54	0	3	4.6		0.63	
Q2. Robbing passengers on a boat along the inland waterways lead to economic losses.	283 298	51	35	23	4.33		0.94	Accept
Q3. Forcefully taking other people's cargoes or properties on a boat along the inland waterways affects the standard of living of the people in the Niger delta.	614 231	45	0	0	4,64		0.58	Accept
Q4. Hijacking of boats along the inland waterways have caused diverse backwardness in the Niger delta.	522 308	45	0	15	4.49		0.74	Accept

Q5. Forcefully taking other people's cargoes or properties on a boat along the inland waterways affect the standard of living of the people in the Niger delta.	397	40	0	76	170	4.48	0.5	Accept
Q6. Hijacking of boats along the Inland waterways have caused Diverse backwardness in the Niger delta.	576	22	5	65	240	4.56	0.66	Accept
Q7. Inordinate affection for other people's cargo in the Niger delta waterways, have scared investors and hindered infrastructural development.	352	34	12	75 0	186	4.3	0.95	Accept
Q8.Attacks on the users of the IWW have caused reduced utilization of the waterways and earnings of the operators.	562	28	3	450	0	4.57	0.7	Accept
Q9.Presence of a Suitable target like an oil worker in the IWW of the Niger delta, encourage snatching of victims that had caused financial setback for the relatives of the victims.	541	30	4	450	0	4.42	0.85	Accept
Q10 Absence of a capable guardian enhance abduction for economic gains.	408	15	5	53	274	0	4.56	0.69 Accept
Q11. The fact that Stolen Petroleum products are easily transported along the Niger delta waterway encourages the act of economic sabotage.	404	1	10	2	383	0	4.48	0.73 Accept
Grand Mean						**4.56**	**0.66**	**Accept**

4.2 Hypothesis Testing, using a Simple Regression on the Bivariate Analyses Hypotheses testing between Boat-jacking (BJ) and the Measures under the Criterion Variable

Ho_1 – There is no significant relationship between Boat-jacking (BJ) and Poor Economy (PE)

Ho_2 – There is no significant relationship between Boat-jacking (BJ) and Increasing IWW crimes (IIC)

Table 8: Correlation between Boat-jacking (BJ) and Poor Economy (PE), using Karl Pearson (R) Parametric Tool Model.

Correlations

		Dependent Variable Poor Boat Economy	Independent Variable Jacking (BJ)
Pearson Correlation	Dependent Variable 1.000 Poor Economy		.736
	Independent Variable .736 Boat Jacking (BJ)		1.000
Sig. (1-tailed)	Dependent Variable. Poor Economy		.000
	Independent Variable .000 Boat Jacking (BJ)		.
N	Dependent Variable 890 Poor Economy		890
	Independent Variable 890 Boat Jacking (BJ)		890

Source: Research's Karl Pearson (R) Correlation table, 2023, with SPSS version 25 window output

Table 9: Summary for the Relationship between Boat-jacking (BJ) and Poor Economy (PE*)*

Model Summary Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	736[a]	.542	.542	4.462

a. Predictors: (Constant), Independent Variable Boat Jacking (BJ)

Source: SPSS version 25 window output

Table 10: Coefficient Table for the Relationship between Boat-jacking (BJ) and Poor Economy (PE) Coefficients[a]

Unstandardized Coefficients				Standardized Coefficients		Sig.
Model		B	Std. Error	Beta	T	
1	(Constant)	8.814	.408		21.602	.000
	Independent Variable Boat Jacking (BJ)	.616	.019	.736	32.426	.000

a. Dependent Variable: Dependent Variable, Poor Economy. Source: SPSS version 25 window output

4.3 NOTES ON THE MODEL SUMMARY TABLE

The Model Summary Table reflects the percentage of variance in the dependent variable accountable by the independent variable(s). The various parts of the model summary table are:

❖ R: - This R means Karl Pearson correlation coefficient. In the above table, for instance, the R value in Table 10 is .736. This is the correlation between BJ and PE . R Squared (R^2): - This is the amount of variation of the dependent variable explained or

accounted by the independent variables. The R^2 is intended to measure accuracy, that is, how much of the difference in outcome ids explained by the model, Conect Cubed (2014). In the table above, the R Squared is .542, which explains that fifty-four-point two percent (54.2%) of the variation of PE is explained by BJ

❖ Adjusted R Square: Note that in a simple regression analysis as the table above, the R^2 and the Adjusted $R^2$are the same. In the above table the Adjusted R^2 is therefore .542.

❖ Standard Error of the Estimate: - This is arrived at by taking the square root of the Mean Square of the residual in the ANOVA table. In the above table, the Standard Error of the Estimate is $\sqrt{19.908} = 4.462$

4.4 Notes on Coefficient Table

The coefficient table shows the regression and the predictability of the dependent variable by the independent variable(s). The various parts of this table are: β, Standard Error, Beta, T value and Significance. These would be explained as follows:

β: -This could produce β_0, β_1, β_2, β_3, etc., depending on the number of independent variables. These explain the amount of response or change of the dependent variable to a unit change in the independent variable. For example, in the coefficient table below, .616 is the value of the BJ. This means that one unit of BJ would cause a change of .616 of PE.

Standard Error: - This is used to determine the range of values, beyond, which rejection of such values are established.

Beta: - This is derived by dividing the actual values by the standard deviation of the values. You can choose to do the regression, using the beta values, which are the standardized values.

T-Score: - This is arrived at by dividing the β_0, β_1, β_2, β_3, etc., by the Standard Error. If the T-value falls within the rejection area of the hypothesis, you reject.

Significance: - This indicates the significant level of the of the T-value, whether it falls within the rejection area or not.

Table 11: Coefficient for the Relationship between Boat-jacking (BJ) and Poor Economy (PE)

Coefficients[a]

Standardized Model		Unstandardized Coefficients Coefficients				
		B	Std. Error	Beta	t	Sig.
1	(Constant)	8.814	.408		21.602	.000
	Independent Variable					
	Boat Jacking (BJ)	.616	.019	.736	32.426	.000

a. Dependent Variable: Dependent Variable Poor Economy Source: Research's table, 2023 with SPSS version 25 window output

4.7 RESULT FROM THE TEST OF NULL HYPOTHESIS HO_1

At ninety-five percent (95%) Confidence Interval (CI), there is a statistically significant relationship between Boat Jacking (BJ) and Poor Economy (PE).

4.7.1 Interpretation of the Result from the Null Hypothesis Ho_1

To approach the research hypothesis Ho_1, a simple linear regression analysis was conducted to evaluate the prediction of the dependent or criterion variable, PE by the independent variable, BJ. The result of the simple linear regression analysis revealed that the independent or predictor variable, BJ is statistically significant predictor to the model ($P < .001$). The R^2 value of .542, associated with this simple linear regression analyses model suggest that the BJ accounts for fiftyfour point two percent (54.2%) of the variation in the PE.

This also suggests that forty-five point eight percent (45.8%) of the variation in PE could not be explained by BJ. The confidence interval associated with this simple linear regression analysis is

ninety-five percent (95%), which implies, alpha = .05; Beta = .736; t (1, 888) = 21.602, 32.426; F (1, 888) = 1051.471; B (Y-intercept = 8.814, Gradient = .616).

There is statistically a significant relationship between Boat-jacking (BJ) and Poor Economy (PE). Therefore, the Null Hypothesis Ho_1 that stated that there is no significant relationship between Boat-jacking (BJ) and Poor Economy (PE) is rejected and the Alternative Hypothesis $H1_1$ that stated that there is a significant relationship between Boat-jacking (BJ) and Poor Economy (PE) is accepted.

Ho_2 – There is no significant relationship between Boat-jacking (BJ) and Increasing Inland waterways Crimes. (IIC).

Table 12: Correlation between Boat-jacking (BJ) and Increasing IWW Crimes. (IIC). using Karl Pearson (R) Parametric Tool.

Correlations

Model Summary		Dependent Variable Increasing IWW Crimes. (IIC).	Independent Variable Boat-Jacking (BJ)
Pearson Correlation	Dependent Variable Increasing IWW Crimes. (IIC).	1.000	.735
	Independent Variable Boat Jacking (BJ)	.735	1.000
Sig. (1-tailed)	Dependent Increasing Crimes. . IWW (IIC).		.000
	Independent Variable Boat Jacking (BJ)	.000	.
N	Dependent Variable Increasing IWW Crimes. (IIC).	890	890
	Independent Variable Boat Jacking (BJ)	890	890

Source: Researcher, 2023 with SPSS version 25 window output.

Table 13: Model Summary for the Relationship between Boat-jacking (BJ) and Increasing IWW Crimes. (IIC).

Model Summary

Model	R	R Square	Adjusted Square	R Std. Error of the Estimate
1	.735[a]	.541	.540	2.917

a. Predictors: (Constant), Independent Variable Boat Jacking (BJ)

Source: Research's Summary table, 2023 with SPSS version 25 window output

Table 14: Coefficient Table for the Relationship between Boat-jacking (BJ) and Increasing IWW Crimes. (IIC).

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	T	Sig.
1	(Constant)	5.168	.267		19.369	.000
	Independent Variable Boat-Jacking (BJ)	.402	.012	.735	32.342	.000

a. Dependent Variable: Dependent Variable; Increasing IWW crimes (IIC). Source**:**

Research's Coefficient table, 2023, with SPSS version 25 window output

4.8 Result from the Test of Null Hypothesis Ho_2

At a ninety-five percent (95%) Confidence Interval (CI), there is a statistically significant relationship between Boat-jacking (BJ) and Increase in IWW Crimes. (IIC).

4.8.1 Interpretation of the Result from Null Hypothesis Ho_2

To approach the research hypothesis Ho_2, a simple linear regression analysis was conducted to evaluate the prediction of the dependent or criterion variable, IIC by the independent variable, BJ. The result of the simple linear regression analysis revealed that the independent or predictor

variable, BJ is a statistically significant predictor of the model ($P < .001$). The R^2 value of .541, associated with this simple linear regression analysis model, suggests that the BJ accounts for fifty-four point one (54.1%) of the variation in the IIC. This also suggests that forty-five point nine percent (45.9%) of the variation in IIC could not be explained by BJ. The confidence interval associated with this simple linear regression analysis is ninety-five percent (95%), which implies, alpha = .05; Beta = .735; t (1, 888) = 19.369, 32.342; F (1, 888) = 1045.982; B (Y-intercept = 5.168, Gradient = .402). There is a statistically significant relationship between Boat-jacking (BJ) and increase in IWW Crimes (IIC). Therefore, the Null Hypothesis Ho_2 that stated that there is no significant relationship between Boat-jacking (BJ) and Increase IWW Crimes (IIC), is rejected and the Alternative Hypothesis $H1_2$ that stated that there is a significant relationship between Boat-jacking (BJ) and Increasing IWW Crimes (IIC) is accepted.

4.9 SUMMARY OF FINDINGS ON THE STUDY OBJECTIVES AND THE RESEARCH HYPOTHESES

Research Objective (ROJ) 1- Determination of the relationship between Boat-Jacking (BJ) and Economic Impact (EI).

Sub-Research Questions:

SRQ1. Does the unlawful seizing of a boat along the inland waterways lead to loss of money? Predetermined Mean (PM) - 3; Average (AV) - 1.4; Decisions (DE) - Reject.

SRQ2. Does robbing passengers on a boat along the inland waterways lead to economic losses? (PM) - 3; Average (AV) - 1.67; Decisions (DE) - Reject

SRQ10. Do you agree that forcefully taking other people's cargoes or properties on a boat along the inland waterways affects the standard of living of the people in the Niger Delta.? (PM) - 3; Average (AV) - 1.95; Decisions (DE) - Reject

Ho_1 – There is no significant relationship between Boat-jacking (BJ) and Poor Economy (PE).

Sub-Research Questions:

SRQ6. Does illegally hiding a person as prisoner against his will lead to loss of access to public utilities like healthcare and portable water? (PM) - 3; (AV) - 1.68; (DE) - Reject

SRQ7. Do you agree that the taking of a victim for money do cause capital deficiency in the Niger Delta? (PM) - 3; (AV) - 1.72; (DE) - Reject

SRQ8. Do you agree that the crime of hostage taking for money has led to low dignity of labour in the Niger Delta? (PM) - 3; (AV) - 1.88; (DE) - Reject

Ho_2 – There is no significant relationship between Boat-jacking (BJ) and Increasing IWW Crimes (IIC).

5.0 DISCUSSION

The discussion of findings in this study was approached based on the objectives of this study. Determination of the relationship between Boat-Jacking (BJ) and Socio-Economic Impact (SEI). By these findings, therefore, it is ethical to conclude that the description of the significant relationship between BJ, PE and IIC, has answered the research question 'What is the relationship between Boat-Jacking (BJ) and Socio-economic Impact (SEI)? Resultantly, the research objective in the determination of the relationship between Boat-Jacking (BJ), Economic Impact (EI) and increasing crimes was achieved.

5.1 CONCLUSION

The research findings on Boat-jacking along the inland waterways of the Niger Delta revealed that this crime is occurring at alarming rate and with impunity. It showed that the independent variable, Boat-jackings, has significant relationships with the measures of the dependent variable, Social Impact (SI), which are Poor Economy and Increase in IWW Crimes (IIC). Therefore, it is expedient to state that Boat-jackings in the Niger delta waterways had drastically affected the Psychophysical state of the dwellers, brought untold hardship and sabotaged the supply chains system upon which a great number of markets and industries depends for the movement of goods and products. Also, the multinational oil companies' workers had to take the expensive alternative of air travel to traverse the region to and from work. The criminal activities of these boat-jackers has affected productivity, resulted in huge financial loss in terms of Property loss, prospective and

potential businessmen have been discouraged and deterred from establishing or investing in the water-locked areas of the region, while others are gradually divesting and tactically leaving the region as it is currently reflected in the divestment of AGIP and Lastly by SPDC and this is having a toll in the overall development of the region. The assumptions necessary for the multiple Linear regression analysis were examined in the research, regression analysis was performed with the data from the "Questionnaires on Criminal Activities Along the Inland Waterways of the Niger Delta" (QCAAIND).

RECOMMENDATIONS

1. There should be Synergy amongst the various relevant security agencies operating along the inland waterways of the Niger Delta region into the Gulf of Guinea towards effective information gathering and prompt sharing to effectively curb the menace of criminal syndicates.

2. The establishment of strategic Anti-Boat-jacking military units comprising men of the various armed forces and well-trained with adequate funding and mandate for rapid response rate and enhanced proactivity to handle reported cases of Boat-jacking and other organised crimes along the waterways.

3. The introduction of innovative methods like aerial surveillance using drones, smart solar spy cameras, whistle blowing reward system, effective communication and private informants with tactical inter-governmental collaboration -cum- investment in the Sector to address the socioeconomic dynamics which is the root causes of the criminal act of boat-jacking, such as poverty, unemployment, and social instability.

5.3 CONTRIBUTION TO SCHOLARSHIP

This study contributes to the body of knowledge by determining the relationship between Boat-Jacking (BJ), with Socio-Economic Impact (SEI). The hypotheses tested in this study made an indispensable contribution to the body of knowledge by asserting, through the results of the hypotheses tested, that the dimension of the independent variables, which is boat-jackings, has significant relationships with the measures of Socio-economic impact (SEI). Economists as well as Security operatives in the Niger delta who wants to change the status quo, can leverage on these

findings as the basis for crime reduction towards economic development. The study also proposing the concept of the 'vicious circle of criminal Activities in (VCCA) to demystify why people commit crimes along the waterways and the entire Niger delta region of Nigeria and will be very useful in policy decision making towards crime reduction in the Niger delta and Nigeria at large. It found that the intentions of the persons carrying out Criminal Activities along the Water Ways (CAWW), was not actually to criminalise their acts but Poverty stimulated the Desire (D) in the persons engaging in those criminal activities along the Waterways, motivating them to do what they do and the more they did it, the more the region experiences underdevelopment which also pushes the victims to commit more crimes. Hence, Desire (D) of the persons carrying out the Criminal Activities along the Water Ways (CAWW) have a close relationship with Economic Impact (EI), it has a loosed relationship with Criminal Activities along the Water Ways CAWW. The study also found out that Kidnapping for Ransom is the most pronounced criminal syndicate amongst the dimensions of the independent variable studied along the waterways of the Niger delta in Nigeria. Although, the criminal activities of Boat-jacking is an organised crime, other organised crimes like illegal fishing practices, illegal oil bunkering, human trafficking, arms trade, inland waterways piracy, drug smuggling, exists from which further studies could be made on the best methodologies to curb these menaces and to aid the security Architecture in the Niger Delta and the Gulf of Guinea where the activities of the criminal elements are more pronounced.

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