



# **Psychosocial Predictors of Attitude towards Pipeline Vandalisation among Residents around Pipeline Routes of Petroleum Products in Arepo, Ogun State**

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## **Abstract**

Pipeline vandalism in Nigeria is on the rise as unscrupulous individuals and criminals are now deliberately breaching pipelines to siphon Premium Motor Spirits (Petrol) and other refined products despite the dangers involved. This study examined the psychosocial predictors of attitudes towards pipeline vandalisation among residents around pipeline routes of petroleum products in Arepo, Ogun State. The study was a cross-sectional survey research method. Two hundred and twenty-five (225) residents living close to the pipeline routes were sampled using a standardized questionnaire and data gathered was analysed using descriptive statistical tools, multiple regression analysis, t-test for independence and Pearson Product Moment correlation (r) analysis at 0.05 level of significance. The result of the study revealed that residents who are high on the lack of trust in security agencies reported a positive attitude toward pipeline vandalization ( $t(225) = -5.63, p < .01$ ) than residents who are low on the attitude towards pipeline vandalization. There was a significant inverse relationship between residents' socio-economic status and attitude towards pipeline vandalization ( $r = -.33, df = 227, p < .05$ ). The residents who are low on the fear of crime reported a positive attitude toward pipeline vandalization ( $t(225) = 4.86, p < .01$ ) than residents who are high on attitude towards pipeline vandalization. There was no significant gender difference in the attitude towards pipeline vandalization ( $t(225) = -1.94, p > .05$ ). Age ( $\beta = .18, p < .01$ ) and educational status ( $\beta = .17, p < .01$ ) predicted attitude towards pipeline vandalization ( $R^2 = 0.27, F(2, 226) = 8.94, p < .01$ ) while marital status' independent influence on the attitude towards pipeline vandalization was negligible. It was recommended that community policing and, a sense of ownership should be inculcated into the citizens through educational awareness and community-oriented resources be allocated to these high-crime areas.

**Keywords:** *Psychosocial predictors, pipelines vandalization, residents, attitude, Arepo.*

## **Introduction**

Pipeline vandalism in Nigeria is on the rise as unscrupulous individuals and criminals are now deliberately breaching pipelines in order to siphon Premium Motor Spirits (Petrol) and other refined products despite the dangers involved. In

the last few years, there have been several incidents of pipeline vandalism at various locations over Nigeria, causing tremendous physical and economic damage to the country, as many lives and properties have been lost as a result of fire outbreaks resulting from nefarious

activities by vandals (Tukur & Othman, 2017; Udofia, & Joel, 2012). Nigeria has an extensive network of pipelines covering about 5200km linking the nation's four (4) refineries with the twenty-two (22) petroleum storage depots strategically located throughout the country (Udofia, & Joel, 2012). Vandalism has truly disabled the activities of the petroleum products distributions and the colossal misfortune this establishes for the country can't be over-expressed. With the expectancy of the greater part of the pipeline network, a huge percentage of petroleum-based commodities supply and dispersion in the nation is made conceivable using tankers/trucks on the roadways. The pressure this causes the deplorable road network and the Nigerian economy is enormous (Njoku, 2016; Udofia, & Joel, 2012). Investigation why pipelines vandalization continues to thrive has been attributed to a lot of willing offenders who include both career criminals and jobless youths who see it as an income-making venture (Tukur & Othman, 2017). In any case, there are around 6,000 to 7,000 kilometres of streamlines and pipelines a large portion of which are not accessible by road and deficient workforce to give satisfactory security to a significant lot of pipelines and various oil establishments, example, wellheads, stream stations, flow stations, depots, platforms, terminals and so forth (Njoku, 2016). The Nigerian National Petroleum Corporation (NNPC) (the parent company saddled with the management of Nigerian petroleum products), and security agencies have tried to work with the host communities hosting the pipeline routes and facilities to reduce the level of vandalism. However, vandalism continues intermittently and sporadically depending on the time level of security surveillance and location (Njoku, 2016; Tukur & Othman, 2017). A major obstacle to the surveillance and security of the pipeline is the residents living around the pipeline whose attitude towards reporting vandals or likely identify security breaches or criminal activities around the pipeline routes. Criminals usually stay away from where they know there would be strong resistance to their evil acts, because they don't want to be caught in their acts. The communities usually complain of the security agencies betraying them after giving out

information that would help track down the vandals. While some residents give tacit support for pecuniary gains or demonstrate their negative attitude towards the government by allowing vandalism to thrive despite the danger it poses to the environment and safety of lives and property of the people (Udofia, & Joel, 2012; Njoku, 2016; Tukur & Othman, 2017).

Given the above account, vandalism has been defined with varying degrees of inclusiveness. Thus, vandalism is an action involving deliberate destruction of public or private property. Within the civic domain, vandalism denotes willful destruction of public or government property in keeping with criminal or political intent. Oil pipeline vandalism therefore implies the deliberate breaking of oil pipelines with the intent to steal petroleum products or to sabotage the government (Vidal, 2011). In Nigeria, oil pipeline vandalism has been perpetrated principally by criminal syndicates who are motivated by the desire to loot oil products for material aggrandizement. This organized crime is often aided and abated by state agents, which gives it a semblance of a franchise. Oil pipeline vandalism is also known in Nigeria as oil bunkering, which is the act of drilling into the pipelines with the intent to steal products. For each of the definitions is based at least to some degree on the perpetrator's intentionality, the destructiveness of the behaviour, and property ownership (Tukur & Othman, 2017). Federal Bureau of Investigation'(FBI) define it as: *The willful or malicious destruction, injury, disfigurement, or defacement of property without the consent of the owner or person having custody or control by cutting, tearing, breaking, marking, painting, drawing, covering with filth, or any such means as may be specified by local law.* (FBI, 1978). Criminal damage refers to crimes where any person without lawful excuse intentionally or recklessly destroys or damages any property belonging to another (Surrey Community Safety Unit, 2010). Attitude refers to the attitude toward vandalisation which is the positive or negative evaluation of performing or not performing the behaviour of interest (Ajzen, 2002; 2005). The individual's evaluation of the outcome of performing the behaviour of interest depends on his or her beliefs known as

behavioural beliefs. These are salient or accessible beliefs that are acquired through learning, experience, and socialisation with others. In relation to the vandalisation. Individuals are more likely to report vandals of pipelines if they believe it will lead to positive outcomes, however, if the reason otherwise to be more favoured, they will join in the vandalisation or simply look away from those committing the crime. Several factors have been identified to be responsible for the local community around petroleum pipeline attitude towards reporting pipeline vandalisation. These include fear of crime, lack of knowledge about its impact, poverty and lack of trust in the security agencies in these communities (Udofia, & Joel, 2012; Njoku, 2016; Tukur & Othman, 2017). To date there is no empirical cross-sectional data to support these claims.

Anifowose et al., (2012) identified that low socio-economic status and poverty play a significant role in pipeline vandalisation in Nigeria. Sociologists often use the term "socio-economic status" (SES) to refer to the relative position of a family or individual in a hierarchical social structure, based on their access to, or control over, wealth, prestige and power. SES is often operationally defined through measures describing the occupational prestige, educational levels, and economic positions of individuals. Research literature indicates that volunteering and other forms of civic engagement, such as voting, participating in community meetings, membership in community associations, and writing letters to the editor, can be predicted by differences in an individual's education, family income, and race. Lower SES individuals seemed less civically engaged than individuals from higher SES groups. Newspaper evidence revealed that victims or accomplices in pipeline vandalisation are often the poor and ignorants living around the area. These are often farmers and these farms were mostly owned by women. The men are often jobless. When a pipeline is vandalized instead of reporting to police the young and old are usually seen seeking free fuel, regardless of the inherent dangers (Vanguard, 2018, Leadership, 2018). Based on these, this study proposed that socio-economic status will play a significant role in the formation of attitude

towards reporting pipeline vandalisation. Additionally, studies indicate that oil pipeline vandalism is principally motivated by the criminal intent of the vandals who break into pipelines to drill products for pecuniary gains. The criminal intent notwithstanding, there are other factors which tend to predispose people to indulge in oil pipeline vandalism. Prominent among these factors are scarcity of petroleum products, widespread poverty and ignorance (illiteracy) among Nigerians, poor protection of the pipelines as well as shallow lying of the pipelines (Ogbeni, 2012; NNPC, 2016; Nwagboso, 2012). Public perceptions of the security agencies have also been identified as a major factor influencing attitude towards pipeline vandalism. This study identifies that central to these concerns about others is a lack of trust in security agencies. Without trust, policing cannot be effective. Public trust' for police is evidenced in several ways, including compliance with the law, reporting crime events, the supply of voluntary information about suspicious behaviour and participation in community meetings and activities (such as Neighbourhood Watch), and: tolerance/acceptance of variation in the exercise of discretionary decision-making (Sunshine & Tyler, 2003). Nigerian citizens often have a lower estimation of police performance and helpfulness. Partnering with communities offers police the opportunity to increase trust and confidence in the police by strengthening community support for police services provided to local areas. Citizens often cited failure of the police to do enough to solve the case; failure to apprehend the offender and recover goods and impoliteness to the victims as reasons for their poor attitude towards reporting crime to the police (Afachung et al., 2019). This is particularly the case in diverse and disadvantaged communities where tensions between police and community members may already be long-term and a continuing source of mutual antagonism and mistrust. This study proposed that people who lack trust in security agencies will have a more positive attitude towards the vandalisation of the pipelines. Both at the individual and community level, pipeline vandalisation seriously disorganizes economic and social activities. Despite the, knowledge of the inherent danger that lurks in pipeline vandalisation seen

openly supporting criminals contradicts what is expected of a citizen and a member of a community. In this view, the study seeks to investigate the psychosocial variables that determine the attitude towards reporting pipeline vandalisation among residents around petroleum products pipeline routes in Arepo, Ogun state.

The study specifically examines the following:

1. To evaluate the significant difference between residents that are high and low on lack of trust in security agencies on positive attitude towards reporting pipeline vandalization.
2. To find out the significant positive relationship between socio-economic status and attitude towards reporting pipeline vandalisation.
3. To identify the significant difference between residents that are low on fear of crime and residents that are high on fear of crime on positive attitude towards reporting pipeline vandalization.
4. To assess the significant gender difference in attitude towards reporting pipeline vandalization.
5. To examine the significant joint and relative prediction of age, marital status and educational qualification on residents' attitude towards reporting pipeline vandalization.

#### *Hypotheses*

1. Residents that are high on lack of trust in security agencies would significantly have more positive attitude towards reporting pipeline vandalisation than residents that are low on lack of trust in security agencies.
2. There will be a significant relationship between socio-economic status and attitude towards reporting pipeline vandalisation.
3. Residents that are low on fear of crime would significantly have a more positive attitude towards reporting pipeline vandalisation than residents that are high on fear of crime.
4. There would be a significant and positive difference between male and female residents in attitude towards reporting pipeline vandalization.

5. Age, marital status and educational qualification of respondents will jointly and relatively predict residents' attitudes towards reporting pipeline vandalisation.

#### *Theoretical Framework/ Review of Empirical Studies*

This section espouses a review of relevant studies and theories in relation to the study variables.

##### *Theory of Reasoned Action*

The theory of reasoned action (TRA) is fundamentally based on a cognitive belief system (Fishbein & Ajzen, 1975). The theory of planned behaviour was viewed as a function of three types of underlying beliefs: (1) attitudes toward pipeline vandalism, which were determined by beliefs about the consequences of behaviour- (2) subjective norms, which were determined by normative beliefs, and (3) perceived behavioural control, which was determined by beliefs about resources and opportunities. An attitude toward pipeline vandalism, which was explained by the extent to which an individual has a favourable or unfavourable evaluation of pipeline vandalism, can be estimated by summing the results of the multiplication of the strength of a citizen's beliefs about the consequences of pipeline vandalism by his or her subjective evaluation of those consequences. A subjective norm, another determinant of reporting vandals' intentions, was constituted by normative beliefs, along with referents. Normative beliefs were usually relevant to how much a referent would be proud of, encourage, and willingly support an individual who would blow the whistle. Perceived behaviour control in pipeline vandalism can be estimated using both control factors and an evaluation of their importance. One of the control factors of pipeline vandalism was the beliefs about the organizational hindrances, namely, a thwarting or intentional ignoring of the reporting. The other one was associated with personal negative beliefs, such as the perceived impossibility of successfully correcting the wrongdoing by reporting it in the organization, and retaliation due to the subjective norms. Specifically, retaliation had been considered one of the most important control factors that discourage citizens from reporting illegitimate activities. Any citizen, who intends to blow the

whistle, first considered how much he or she could be statutorily protected from retaliation. Gorta and Forell (1995) argued that, due to fear of retaliation, corruption had been significantly underreported, and they suggested that such fear plays an important role in the decisions of potential whistleblowers.

### *Review of Empirical Studies*

Vandalism can be described as the purposeful damaging, violation, defacement, or destruction of public or private property by persons who are not the direct owners of the property (De wet, 2004). De wet (2004) described vandalism as: the deliberate or malicious destruction, injury, disfigurement or defacement of any public or private property, real or personal, without the consent of the owner or persons having custody or control. Moreso, vandalism refers to illegal or unauthorized activities that result in the destruction of petroleum, gas and chemical pipelines. It is a negative activity aimed at getting products for personal use or for sale in the black market especially in developing countries of the world where they are rampant. About 40% of the world's oil flows through pipelines which run thousands of kilometres across some of the most volatile areas of the world (Ezeh et al., 2014). Armitage (2002) found that many people involved in this behaviour were often found to have mitigating reasons for their actions. The public's perception of victims, criminals, deviants, and law enforcement officials is largely determined by their behaviour and tendencies to act (Greer & Reiner, 2012). The traditional notion is that individuals' decisions to report crime are contingent upon their assessments of the cost and benefit associated with reporting. Scholars have long utilized this line of reasoning in explaining crime reporting of individuals (Boateng, 2016). One of the possible benefits of reporting crime is retribution (Tolsma et al., 2011). By reporting, a victim increases the likelihood that a perpetrator will be apprehended and punished. Researchers have noted that crime reporting affects the type of crime and the amount of crime known to the police (Greer & Reiner, 2012). Scott and Dedel (2006) averred in their work that citizens who witness or are victimized by crime are sometimes reluctant to report incidents to the police or to assist in the prosecution of offenders. Such

reluctance may be in response to a perceived or actual threat of retaliation by the offender or his or her associates or may be the result of more generalized community norms that discourage residents from cooperating with police and prosecutors. In some communities, close ties between witnesses, offenders, and their families and friends may also play an important role; these relationships can provide a vitally important context for understanding witness intimidation. Particularly in violent and gang-related crimes, the same individual may, at different times, be a victim, a witness, and an offender. McKean and Ho, (2004) investigated the relationship between perceptions of risk of criminal victimization and confidence in the police. Respondents' demographics such as age and race were found to be predictors in determining reporting to police. On the other hand, respondents' education, family income, and experience as a victim or a witness were found to be crucial indicators of risk perceptions. Arguably, there have been alleged complicity of these illegal businesses in most of the oil areas in Nigeria, especially in the Niger Delta by the security forces. Signs of alleged participation by security forces include; Brigadier General, then, a commander in the Joint Task Force (JTF) that patrols parts of the delta was relieved of his post in March 2006, owing to alleged involvement with illegal bunkering, over a dozen retired military officers including a rear admiral were arrested on suspicion of oil theft during the 2000s, all were later freed without charge, claims to have observed rank-and-file JTF officers standing guard at illegal tap points and providing armed escort to ships loaded with stolen crude (Katsouris & Sayne, 2013).

### **Methods**

The methodology section describes the research design, participants, procedures, instruments, and analytical techniques used to test the hypotheses. It is divided into sampling, measures, reliability test, data collection as well as data analysis

#### *Design*

The research design for this study is the cross-sectional survey research method. The independent variables manipulated are trust in security agencies, socio-economic status and fear of crime. While the dependent variable is the

attitude towards vandalism. A self-report questionnaire was utilized in the study.

### *Participants*

The population sample for this study was drawn from the population communities living along the Arepo pipeline routes in Ogun state. Two hundred and twenty-five (225) residents were sampled in the study. About a third (32.6%) of the respondents were within 18-22 years of age, 69(30.8%) were 23-27 years of age, 50(22.3%) were of the age range of 28-37 years while 32(14.3%) were 38-47 years of age. On gender, 121 (54.0%) of the respondents were males while 104 (46.0%) were females. Less than a third (29.0%) of the respondents had secondary school certificates, 30.4% had NCE/OND, 31.7% were first-degree graduates and 8.9% were undergraduates. The occupation includes business (25.9%), civil service (11.2%), student (44.6%), petty trading (3.1%) artisan (1.3%), self-employed (6.7%), teacher (2.7%), farming (0.9%), human resources management (0.4%), engineer, (1.3%), academic (0.4%), nursing (0.9%) and computer analyst (0.4%). Most of the respondents were Christian (76.8%), 22.8% were Muslims and 0.4% were traditionalists. More than two-thirds (68.8%) were married while 31.3% were singles. Close to one-third (29.9%) of the respondents were Igbos, 4.0% were Hausas and 66.1% were Yorubas.

### *Research Instruments*

The research Instrument is a questionnaire divided into the following sections. Section A captures demographic variables such as age, sex, marital status, ethnic origin, job status, type of occupation, monthly income, years of etc. Section B measures attitudes towards vandalism using self-developed items. For this study, the scale was into two scenarios featuring people committing vandalism under various conditions. The scenarios were designed to assess what the respondents think or feel about the behaviour in question, and how the person would respond to the situation. Various questions from the scale were used to assess respondents' perceptions of what will be their likely reaction on a scale from 1 (Strongly disagree) to 5 (Strongly agree). Lack

of trust in security agencies' behaviour was captured using the lack of trust in police scale developed by (Jackson & Huq, 2012). The lack of trust in security agencies' subscale consists of five items. A total score for lack of trust in security agencies was derived by averaging across the five items. Each of these items was measured using a five-point Likert scale ranging from (1) Strongly Disagree to (5) Strongly Agree. Coefficient alpha for lack of trust in security agencies was 0.72. Fear of crime was measured using the fear of crime scale developed by Hind and Flemming (2006); the four questions item asked about how safe they felt at home and at local shops by themselves, both during the day and after dark. Responses were on a five-point scale ranging from 1 = very unsafe to 5 - very safe (Cronbach's alpha - 0.82). Socio-economic status was measured using the Socio-Economic Status Scale (rural) by Kuppaswamy (1962). The scale measures socio-economic status on three main variables: Education, Occupation and Income. For each factor, there are seven plausible alternatives which was selected by the potential respondents. -the range of scores which, can be obtained is from 3 to 27. The norms which were established were applicable to the rural population. While the level of income was modified to show present economic conditions in Nigeria.

### *Data Analysis*

The data gathered was analysed using frequency tables, and statistical tools which include multiple regression analysis, t-test for independence and Pearson r correlation were utilized in consonance with the hypotheses stated.

## **Results**

**Hypothesis 1:** Hypothesis one stated that residents that high on lack of trust in security agencies would significantly have more positive attitude towards pipeline vandalism than residents low in lack of trust in security agencies. This hypothesis was analysed using the t-test for independence and the result is presented in Table 1.

Table 1: t-test summary table showing the difference between low and high trust in security on attitude towards pipeline vandalisation.

Attitude towards pipeline vandalisation	Trust in security agencies	N	Mean	S.D	df	t	P
	Low	105	12.79	2.97	225	-5.628	<0.01
	High	122	15.05	3.06			

Source: authors compilation (2023)

The result from above shows that residents who are low on trust in security agencies (M=12.79, S.D= 2.97) significantly reported a negative attitude towards pipeline vandalisation than residents who are high on lack of trust in security agencies (M=15.05, S.D =3.06). In addition, the residents who are high on lack of trust in security agencies reported a positive attitude toward reporting pipeline vandalisation ( $t(225) = -5.63$ ,  $p < .01$ ) than residents who are low on attitude towards pipeline vandalisation. This implies that

trust in security agencies significantly influences attitude towards pipeline vandalisation among residents sampled. The hypothesis is thus accepted.

**Hypothesis 2:** Hypothesis two stated that there would be a significant relationship between socioeconomic status and attitude towards pipeline vandalisation. The hypothesis was tested using Pearson r correlational analysis. The result is presented in Table 2.

Table 2: Pearson Product Moment correlation showing the relationship between residents' socio-economic status and attitude towards pipeline vandalisation

Variables	Mean	S.D	N	r - cal	p	Remark
Socio-economic status	14.00	3.21	227	-.330	<.05	Sig.
Attitude towards pipeline vandalisation	12.73	3.47	227			

Source: authors compilation (2023)

The results obtained from the test are shown in Table 2 above. The table shows that there was a significant inverse relationship between residents' socio-economic status and attitude towards pipeline vandalisation ( $r = -.33$ ,  $df = 227$ ,  $p < .05$ ). This suggests that increase in socio-economic status significantly relates to positive attitude towards pipeline vandalisation among residents in Arepo.

**Hypothesis 3:** Hypothesis three stated that residents low on fear of crime would significantly have more positive attitudes towards pipeline vandalisation than residents high on fear of crime. This hypothesis was analysed using the t-test for independence sample and the result presented in Table 3.

Table 3: t-test summary table showing the difference between residents with low and high level of fear of crime on attitude towards pipeline vandalisation

Attitude towards pipeline vandalisation	Fear of crime	N	Mean	S. D	df	t	P
	Low	178	14.52	3.31	225	4.856	<0.01
	High	49	12.12	1.89			

**Source: authors compilation (2023)**

The result from Table 3 above reveals that residents who are low on fear of crime agencies (M=14.52, S.D= 3.31) significantly reported a positive attitude towards pipeline vandalisation than residents who are high on fear of crime (M=12.12, S.D=1.89). Further, the residents who are low on fear of crime reported a positive attitude toward reporting pipeline vandalisation ( $t(225) = 4.86, p < .01$ ) than residents who are high on attitude towards pipeline vandalisation. This implies that fear of crime significantly influences

attitude towards pipeline vandalisation among residents sampled. The hypothesis is thus accepted.

**Hypothesis 4:** Hypothesis four stated that female residents will have positive towards pipeline vandalisation than their male counterpart. This hypothesis was analysed using the t-test for independence sample and the result is presented in Table 4.

Table 4: t-test summary table showing the gender difference in attitude towards vandalisation.

Attitude towards pipeline vandalisation	Gender	N	Mean	S.D	df	t	P
	Male	164	13.75	3.09	225	-1.936	>0.05
	Female	63	14.67	3.46			

**Source: authors compilation (2023)**

The results show that male residents with positive attitudes (M=13.75, S.D=3.09) were not significantly different in the attitudes towards pipeline vandalisation compared to females who reported positive attitudes towards pipeline vandalisation (M= 14.67, S.D=3.46) demonstrating that there was no significant difference in the attitude towards pipeline vandalisation reported by both male and female residents in Arepo ( $t(225) = -1.94, p > .05$ ). Thus,

male and female did not differ in attitude towards pipeline vandalisation among the residents sampled. The hypothesis is thus rejected.

**Hypothesis 5:** Hypothesis five stated that age, marital status and educational qualification would jointly and relatively predict residents' attitudes towards reporting pipeline vandalization was tested using multiple regression analysis. The results are presented in Table 5.

Table 5: Summary of multiple regression analysis showing the influence of respondents' age, marital status and educational status on attitude towards pipeline vandalisation.

Predictors	$\beta$	t	P	R	$R^2$	F	P
Age	.181	2.68	<.01	0.25	0.64	5.09	<.01
Marital status	-.014	-.211	>.05				
Educational status	.171	2.63	<.01				

**Source: authors compilation (2023)**

The result revealed that respondents' age, marital status and educational status jointly predicted attitude towards pipeline vandalisation ( $R^2 = 0.27, F(2,226) = 8.94, p < .01$ ). When combined the respondents' age, marital status and educational status accounted for 25% of the change observed in the attitude towards pipeline vandalisation of residents examined. This

revealed that the collective presence of socio-demographic variables has a significant influence on the attitude towards pipeline vandalisation of residents in Arepo. The result also revealed that age ( $\beta = .18, p < .01$ ) and educational status ( $\beta = .17, p < .01$ ), were significant independent predictors of the attitude towards pipeline vandalisation. While marital status ( $\beta = -.01$ ,



$p > .05$ ) has no significant independent influence on attitude towards pipeline vandalisation. The results revealed that increasing age and educational qualification significantly influence attitudes towards pipeline vandalisation. The hypothesis was supported.

### **Discussion**

This study examines the psychosocial predictors of attitude towards pipeline vandalization among residents around pipeline routes of petroleum products in Arepo, Ogun state, Nigeria. The first hypothesis stated that residents high on lack of trust in security agencies would significantly have a more positive attitude towards pipeline vandalisation than residents low in lack of trust in security agencies was thus accepted. The reason could be evident from the alleged complicity and mistrust of police performance. The result corroborates (Cleen, 2006) who espouses the failure of the police to apprehend the offender and recover goods and impoliteness to the victims as reasons for their poor attitude towards reporting crimes to the police. Similarly, the findings agreed with (Winter, 1992) who concluded that the Nigerian citizens often have a lower estimation of police performance and helpfulness. Also, the result is in line with that of Alemika and Chukwuma (2005), who concluded that police performance has declined over the past five years. The second hypothesis stated that there would be a significant relationship between socioeconomic status and attitude towards pipeline vandalisation was also confirmed. The results obtained show that there was a significant inverse relationship between residents' socio-economic status and attitude towards pipeline vandalisation. This suggests that an increase in socio-economic status significantly relates to negative attitude towards pipeline vandalisation among residents in Arepo. The majority of studies available on the effects of SES on perceptions of crime suggest a negative correlation between the two. Shaw and McKay (1942) and Kornhauser (1978) identify poverty, ethnic heterogeneity, and residential mobility as the three factors that weaken networks of social control and undermine the ability and willingness of communities to exercise informal control over their members. The lower the SES, the more likely the offenders to justify their criminal

behaviour (Ellis & McDonald, 2001). The result finding supports the opinion of Kristjansson (2007) who demonstrated that social integration and smaller differences between households and neighbourhoods in terms of income and class are associated with greater perceptions of insecurity. Also, the findings are similar to that of Freeman (2006) who found a significant main effect of defendant SES on the junior perception of crime. People of low SES defendants were rated as deserving significantly more severe sentences. Also, the study of Barak (1994), found that the media reports of crimes and the portrayal of most criminals in television and movies revealed that the poor have more positive attitude toward crime than the people from rich neighbourhoods. Ruby and Brigham, (1996), also associated positive attitude to criminality among people with low SES. The third hypothesis stated that residents low on fear of crime would significantly have a more positive attitude towards pipeline vandalisation than residents high on fear of crime was confirmed that fear of crime significantly influences attitude towards pipeline vandalisation among residents. This finding is similar to those found in the literature. This finding supports the study of Hale (1996) who demonstrated people who perceived themselves as vulnerable are less likely to report crime to law enforcement officers. In the same trend, Wyant (2008) found that neighbourhoods showed that those perceiving more incivilities and more crime risk than their neighbours were more fearful. Priest and Carter (1999), and Smith et al. (1991) found a link between victimization and negative evaluations of the police. Thurman and Reisig (1996) reported that respondents in one city who had been victimized evaluated the police less positively than those who had not been victimized, while in another city victims held slightly more favourable views of the police than those who had not been victimized. The fourth hypothesis stated that there would be a significant difference between male and female residents towards pipeline vandalisation was not confirmed. Male residents were not significantly different towards pipeline vandalisation compared to female residents on attitude towards pipeline vandalization. This further demonstrates that there was no significant difference in the attitude towards pipeline vandalisation reported

by both male and female residents in Arepo. This finding is in contrast with the study of Chui et al. (2002) who demonstrated that women reported significantly greater fear of crime than men for all offences except for being cheated. Fear of rape/sexual assault was found to be a significant predictor of fear of serious crimes for women but a less significant predictor of their fear of minor crimes. The fifth hypothesis stated that age, marital status and educational status would jointly and independently significantly predict attitudes towards pipeline vandalisation. Respondents' age marital status and educational status jointly predicted attitudes towards pipeline vandalisation. The result also revealed that age and educational status were significant independent predictors of the attitude towards pipeline vandalisation. While marital status has no significant independent influence on the attitude towards pipeline vandalisation. Young respondents are more likely to positive attitude towards crime and a negative attitude towards the punishment of offenders (Langan et al., 2001), and more likely to be dissatisfied with the treatment afforded them by the police (Weitzer, 1999). Concerning age, the bulk of the evidence suggested that age is positively and significantly related to both perceived victimization risk and punitive orientations (Costello et al., 2002; Sprott & Doob, 1997). One study also found that, among those with more education, younger age was significantly associated with punitive orientations among Americans (Costello et al., 2002). In addition, research demonstrated that older Blacks were significantly more likely to support punitive measures (Cohn et al., 1991).

#### *Conclusion and Recommendations*

This study examines the psychosocial predictors of attitude towards pipeline vandalization among residents around pipeline routes of petroleum products in Arepo, Ogun state, Nigeria. As such, the study concludes that trust in security agencies significantly influences attitude towards pipeline vandalisation among residents sampled. In addition, there was a significant inverse relationship between residents' socio-economic status and attitude towards pipeline vandalization. Additionally, the residents low on fear of crimes reported positive attitude toward reporting pipeline vandalism. Furthermore, there

was no significant gender difference in the attitude towards pipeline vandalisation. This implies that male and female residents are not different in the act of vandalisation. Lastly, the collective presence of socio-demographic variables has a significant influence on the attitude towards pipeline vandalisation.

#### *Recommendations*

Based on the above conclusion, we make the following recommendations:

1. Adoption of Citizen-Oriented Community Development Initiation (COCIDI) to bring together interaction between the residents and relevant stakeholders like security agents in the region.
2. Management policies which foster a sense of ownership and responsibility, as well as trust in security agencies and citizens have been shown to reduce vandalism should be provided.
3. The Federal Government of Nigeria should through the NNPC collaborate with the nation's military and other security agencies to ensure adequate policing and protection of critical pipeline infrastructure around resident areas.
4. High visibility policing should be encouraged among police officers, police community support officers, neighbourhood or street wardens, or others.
5. Providing young people with educational and diversionary activities and equipping them with key basic skills are important steps in addressing vandalism.
6. The Federal Government should devise new measures of laying standard pipeline infrastructure in line with global best practices so that the incidence of pipeline vandalism will be eradicated or reduced to it bear rest minimum.

#### *Contributions to Knowledge*

The study makes three unique contributions to existing knowledge. Firstly, the study contributed to the understanding of the implications of oil pipeline vandalism on community areas in Nigeria. Secondly, the study identifies some variables that are unique to the Nigerian environment such as fear of crime, lack of trust in the security agencies, and socio-economic as the

major problem affecting the country's oil pipeline. Finally, the study contributes to the need for the adoption of COCDI to bring together interaction between the residents and relevant stakeholders like security agents in the region.

#### Limitations and Future Research

This research has a cross-sectional design, which limits its ability to draw conclusions about causality. Moreover, convenience sampling was used for this, which limits the generalizability of the research results. The use of self-administered questionnaires leads to concerns over method bias. A comparative study can also be conducted to investigate other socio-psychological variables in relation to vandalization among residents around pipeline routes of petroleum products in Nigeria.

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