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### Environmental Effects of Urban Street Trading in Ogui Junction Enugu State Nigeria

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#### Abstract

The study examined environmental effects of urban street trading in Ogui Junction Enugu State Nigeria. Specifically, the study sought to: Assess the environmental effects of urban street trading on solid waste generation in Ogui Junction Enugu and determine the environmental effects of urban street trading on incompatible land uses in Ogui Junction Enugu. The research design was descriptive research method. The sample size of 400 respondents was drawn from 772,664 (Projected Population Census, 2022) residential people in Enugu urban area. Research questions of the study were answered using mean score and standard deviation. The hypotheses stated were tested using single regression analysis. The empirical results show that urban

street trading has no significant environmental effects on solid waste generation in Ogui Junction Enugu (t-statistic; 7.238; P-value; 0.000 < Sig-value; 0.05) and urban street trading has significant environmental effects on incompatible land uses in Ogui Junction Enugu Nigeria (t-statistic; 9.516; P-value; 0.000 < Sig-value; 0.05). The study concluded that there is negative and significant environmental effects of urban street trading in Ogui Junction Enugu State Nigeria. The study recommended that government should regularly engage waste management companies in cleaning of our streets to ensure the sanitation problems on our streets are drastically reduced.

**Keywords:** Urban Street Trading, Solid Waste Generation, Incompatible Land Uses

#### 1. Background of the Study

The traders display and market their wares or goods usually along roadsides of major roads, near government or big public establishments, within market places or during traffic congestion on busy roads. In some instances, the urban trading activities can be located in illegal structures and abandoned buildings (Senna, 2022) [23]. According to Clark and Yesufu, (2020) [7], streets traders offer to transact their business in streets or pavement and may be viewed as a form of squatting. Ogunka, (2019) [15] clearly states that street vendors are at the heart of the informal economic sector. Several contributing factors have been identified for the prevalence of street trading in Nigeria such; as unemployment due to public sector corruption, high inflation, low wages, unfavourable government policies, deplorable working conditions, widening gap between the rich and the poor, social exclusion and endemic poverty, which have made individuals, struggle to maintain their families (Olabisi, Zakariyau, Adedotun, Akinola & Adedeji, 2020) [16]. Bogoro, (2020) [6] further asserted that unemployment is a major contributing factor due to scarcity of pay jobs. The high rate of poverty and high rent charged by shop owners is another key predictor of street trading as the majority of the populace is not financially secure to rent and maintain shops and pay utilities associated with it (Adeniji, Muritala & Olayinka, (2022) [3]. Majority of the traders are migrants to cities with low educational level, and street trading for them represent a desperate means of survival when the hopes of getting *white color job* which brought them from the rural areas have been delayed or dashed completely (Ogbonna, Nwaeze, Okoye & Eleazu, 2016) [13]. The causes of street trading are attributed to low educational level or illiteracy and low involvement of capital. Unemployment is another contributing factor that make most people to engage in such activities since formal employment opportunities are no more abundantly unavailable (Oli, 2021; Olugbenga, 2015) [18, 19].

People with low levels of education particularly women regularly use urban Street trading to maintain survival livelihood (Magaji & Sarka, 2023) <sup>[11]</sup>. Street vendors selling vegetables, furniture, clothing, and technology abound on Africa's urban streets. Street trading is a feasible source of employment for low-income and disadvantaged urban people due to its higher accessibility to those with little education and financial resources (Hawa-Francis & Kongoley, 2022) <sup>[9]</sup>. Urban Street trading usually causes misuse or violate urban planning regulation guiding the development of unauthorized places within the core area. The process of urbanization in Nigeria as of today cannot be compared with those of the European countries. Urbanization process in those advanced countries was based on improved agricultural processes and the industrialization of the sectors of their economies (Olugbenga & Akinyode, 2017) <sup>[20]</sup>. The economic constraints also force people to look for wealth at all cost to the detriment of their children. Urban Street trading is widely recognized to be the most proximate channel to the end consumers. Despite this recognition, research has not been conducted to understand the environment effect of urban street trading in Lagos State Nigeria.

### 1.1 Statement of the Problem

Street trading poses major socio-economic and environmental dangers. However, street trading and environmental degradation are very rampant due to high increase in the numbers of urban squatters. In Nigeria, the persistence of street trading has obstructed and distorted city and urban planning and a major concern to government and private investors. Unfortunately, street trading has been described to be the commonest form of child labor in Nigeria and solace for out-of-school children (Ajakaiye, Jubril, Akinola, Okagbue & Adedeji, 2020) <sup>[5]</sup>.

Street trading has been implicated in different societal problems such as encroachment on the right of free movement by the traders, traffic congestion, defacement of the aesthetic appearance of the street and pedestrians injuries (Acheampong, 2019) <sup>[1]</sup>. One major factor exacerbating the continuous spate of street trading is structural inequalities caused by poverty. This in essence, has brought about adverse economic environment, underemployment and a poor quality of life. Massive retrenchment, unemployment has affected the segments of live causing dearth of social services at home, lack of good housing, inadequate food and health care services.

Environmental wastes generated by street traders lead to obstruction of drainage systems leading to flooding during rainfall, road dilapidation and health issues (Adeyemi, Fashae, Ayorinde and Obateru, 2019) <sup>[4]</sup>. Ogunkan, (2019) <sup>[15]</sup>; Edeme and Nkalu (2019) <sup>[8]</sup>, observed that these combinations have compel parents to send their children into street trading and the least privileged children, including children without families or without homes to these social ills. In view of the above problems this study is set out to investigate issues like causes and environmental effects of street trading, and suggest possible solutions to the identified problems.

### 1.2 Objectives of the Study

The main objective of this study is to examine environmental effects of urban street trading in Ogui Junction Enugu State Nigeria. The specific objectives of this

study are to:

1. Assess the environmental effects of urban street trading on solid waste generation in Ogui Junction Enugu State Nigeria.
2. Determine the environmental effects of urban street trading on incompatible land uses in Ogui Junction Enugu State Nigeria.

### 1.3 Research Questions

This study seeks to provide answers to the following research questions.

1. What is the effect the environmental effects of urban street trading on solid waste generation in Ogui Junction Enugu State Nigeria?
2. What is the effect the environmental effects of urban street trading on incompatible in land uses Lagos Island Nigeria?

### 1.4 Significance of the Study

The outcome of this study is beneficial and relevant to the government policy makers and scholar and researchers. The finding of this study would be important because it will provide information on the issues of linkages between informal sector and economic development in the country. This might helpful for Policy makers as well as development practitioners at the moment to design the strategies of development policies for informal sectors.

The results of the study will provide the pace for other researcher as a guideline on the same issue and finally it helps to forward policy recommendations about the importance of informal sectors for generating employment opportunities for unskilled labor and supporting livelihoods based on the findings. Overall the society of the country will be benefited from the outcome of research in manifolds.

## 2. Literature Review

### 2.1 Conceptual Literature

#### 2.1.1 Urban Street Trading

Street trading is defined as the selling or offering for sale of any article in the street. Traders who use the public highway to sell goods or services must have a street trading license to carry out the trade from a designated site pitch and display of goods in front of a shop. Street vending is the selling of goods and services in the street without using a permanent built-up structure (Senna, 2022) <sup>[23]</sup>. Street vendors include all those that sell goods and services in a public space such as regulated street markets, transportation hubs, natural market areas, sidewalks, and in and along the streets. Street vending constitutes a significant proportion of the informal sector activities in Africa, Asia, and Latin America.

Street trading involves continuous display of goods along roadsides which may occur within established market places or outside the intersection of major roads (Ogunka, 2019) <sup>[15]</sup>. This activity of street vending falls among the small and micro enterprises (SMEs), and forms a major driving force for economic development in most developing countries. It has been defined in many different ways by various authors. However, a common theme among definitions has to do with location of the trade. It may include trading without a permit, trading outside formally designated trading locations and non-payment of municipal/national taxes, or self-allocation of shelter for trading (Olabisi, Zakariyau, Adedotun, Akinola & Adedeji, 2020) <sup>[16]</sup>.

## 2.2 Contextual Literature

### 2.2.1 Environmental effect of urban street trading on solid waste generation

The menace of street hawking includes degrading the environment by littering the road with dirt and impeding movement on pedestrian bridge. This practice of hawking items on the road undermines the beautification and landscaping of cities in Nigeria (Clark & Yesufu, 2020) <sup>[7]</sup>. With every purchase made on the streets, comes a trail of waste. Plastic wrappers, food containers and discarded packaging litter the sidewalks, contributing to the growing waste problem in Lagos. Hawkers often resort to single-use packaging, which further exacerbates the issue. The sheer volume of waste generated through hawking activities poses a significant challenge for environmental protection and sustainability in the city (Senna, 2022) <sup>[23]</sup>.

Furthermore, Bogoro, (2020) <sup>[6]</sup> stated that street food vendors pose major public health problems because they often expose their goods to the sun, air pollution, and contamination by passers-by. A further assertion made by Bromley is that, street vending contributes to underground activities that support and facilitate crime and tax evasion thus, undermining the fabric of civil society.

### 2.2.2 Environmental effects of urban street trading on incompatible land uses

Street vending and hawking causes: Traffic congestion, environmental pollution, visual pollution and reduced food safety. Traffic congestion, difficulties in disposing of waste generated by street vendors and attracting migrant people from rural places to urban areas are the reasons given for declaring street vending and hawking illegal (Adeniji, Muritala & Olayinka, 2022) <sup>[3]</sup>. In managing street foods business, authority concerned may choose one of the following governance steps such as (1) repression or eviction for hawkers' encroachment on the crowded streetside (2) temporary approval within the limited timeframe (with or without registration fees, within or without zoning area) and (3) the official recognition of the street foods existence and the protecting the selling right of hawkers (at public place) along with the corrective rules to be abided by vendors (Ogbonna, Nwaeze, Okoye & Eleazu, 2016) <sup>[13]</sup>.

Oli, (2021) <sup>[18]</sup> examined the spatial implication of street trading in Osogbo, Nigeria and found that the activity has serious negative impacts on accessibility, erection of illegal structures, solid waste generation, traffic congestion, auto-accident, and deface of urban aesthetics. Worldwide there are six identifiable problems of street traders which are, cost of regulation, harassment, bribes, confiscation and evictions, lack of services, and infrastructure and lack of representation.

## 2.3 Theoretical Literature

### Goal theory

In 1960s, Edwin Locke put forward the goal theory of motivation. This theory states that goal setting is essentially linked to task performance. De-Tienne, (2010) cited in Jackson and Dunn-Jensen, (2021) explain entrepreneurial exit. The nature of goal setting, the nature of goal setting that leads into TPBs, for example the entrepreneur set a goal and then must develop the plan of behavior necessary to achieve the objective goal. De-Tienne argues that those entrepreneurs who set goals are more likely to develop and implement a succession process. Goal in this context may include monetizing the business, creating a legacy or simply

no longer working. While motivational factors are critical antecedent to behavioral action, non-motivational factors such as availability of resources (time, money, skills and cooperation) are also important antecedents to the performance of the intended behavior.

### Trait theory

Psychologist Gordon Allport was among the firsts to come up with a personality trait theory in 1936. Allport viewed traits as building blocks of personality. Trait leadership theory suggests that all leaders are born with or display certain key personality characteristics. The most important trait is identified as drive, motivation, integrity, self-confidence, intelligent and knowledge (Le-Counte, 2022). Behavior theory propounded John B. Watson which explained that when a person exhibits potential leadership behavior, he /she is assessed for distinctiveness regarding that behavior if it is distinguishable from behavior of others in the group, then leadership may be attributed to the person (Jidefor, Okeke & Okeke, (2023). The four theories are interrelated in determining effective succession plan. The theory of planned behavior and goal theory impact on the founder/entrepreneur intentions and capability to embark on succession plan while the trait and behavior theory help the founder in identification of suitable successor. The four theories will help drive the purpose of this research work.

## 2.4 Empirical Literature

Hingha, Bockarie, Bompay and Koroma, (2023) <sup>[10]</sup> conducted a study to investigate the effects of street trading on girls-child education in Kenema City, Sierra Leone. Specifically, the study sought to evaluate the challenges associated with street trading, its impact on girls-child education, and possible recommendations for curbing street trading were pinpointed. The data analytical techniques simple percentage and frequency distribution. Sixty (60) respondents were interviewed in all, 50 school-going girls within the age bracket of 5-18 years and 10 parents (26 years and above). The findings of the study will be useful to the Government of Sierra Leone, Non-governmental organizations, policy-making institutions, and the general public. This study will also provide an insight on the causes of the street trade by school-going girls. The study recommends that city authorities (City Council and Metropolitan police) by designated street trading as illegal in the city with a fine to be levied if found guilty. Therefore, there is still the need to holistically reconsider and diverse an alternative strategy to remedy school-going girls' off-street trade.

Salem, Haitham, Mohammad, Saleh and Shakir, (2022) <sup>[22]</sup> conducted a study to ascertain the impact of urban culture on street vending in Baghdad, Iraq. Specifically, the study sought to test the positive effect of urban culture on street vending using multiple mediations of consumption patterns, resistance, and microfinance. We tested a sample of 425 responses that reflect the public opinion in Baghdad, Iraq. The data analytical technique was partial least squares-based structural equation modeling and mediation analysis. We found that resistance mediates the effect of urban culture on street vending; low-income consumption and resistance sequentially mediate the effect of urban culture on street vending, while resistance mediates the effect of a lack of microfinance on street vending. The direct impact of culture on street vending is not significant, and a lack of microfinance positively influences the pervasiveness of

trading on streets. The study recommended that the designation of a key contact organization / office in charge of street vendors' business will go a long way to reduce the menace of hawking and vending. Also, the designation of authorised areas for street vending, based on planning regulation can be introduced and enforced.

Senna, (2022) <sup>[23]</sup> investigated how street hawking affects the education of young female hawkers in Ghana's Volta region. The specific objectives of the study were to examine risk factors of street hawking among girls, effect of street hawking among school young female hawkers and effect of street hawking on academic performance of young female students in Sogakofe. The data analytical technique were mean scores and student t-statistics. The sampling of 60 respondents was picked from a population of 17,335 adolescent schoolgirls hawking along the main roadway. Findings revealed that schoolgirls in the age groups 16-20 and 21-25 dominated the street hawking trade. The predisposing factors identified include the need to pay their school fees, provide for their basic needs, assist their parent in providing for the home, and parental irresponsibility. In addition, the study found that many female street hawkers are not able to attend school regularly as a result of their hawking activities on the street, which affects school attendance and culminates in poor academic performance. Most of them become school dropouts. The study recommended that the government continue to educate parents about the negative effects of involving their children in street hawking and the importance of education.

Bogoro, (2020) <sup>[6]</sup> conducted a study to examine the effects of street trading on urban areas in Nigeria. The specific objective of the study was to investigate the issues like causes and effects of street trading, and suggest possible solutions to the identified problems. Three urban areas Bauchi, Lagos and Port Harcourt were sampled to study the impact of street trading in Nigerian urban areas. 100 questionnaires were administered to each of the three urban centers selected. It is found that 40.59% of streets traders are migrants from the rural areas. The methods of data analysis were mean score and percentage frequency. The study discovered that most of the streets traders indiscriminately disposed of their refuse by burning and dumping in the drainage there by blocking the drainage channels causing flood during rainy season and 24.75% dumped their waste right on the roadside. There is disorderliness in the arrangement of different methods used in displaying of items by street traders there by making the study area appear as an insightful and unpleasant urban environment thus displeasing visual effect and 28.71% of streets traders encroached into the road with up to 1-1.5m and above causing serious traffic problem. The paper recommends development of rural areas to reduce rural-urban migration, relocating those that encroached to in the road, and the provision of moveable refuse collection points.

Singh, (2020) <sup>[21]</sup> conducted a study to examine the role of street vending on urban livelihood in Mettu Town Ethiopia. The main purpose of the study is to study the role of street commerce in supporting urban life. The extent of the impact of street commerce on the incomes of the urban population, including those who do not own land, is analyzed in the study. The study is aimed at finding patterns between the living conditions of urban population living on the brink of poverty and the dynamics of street commerce, the proceeds of which are directed to meet their daily physiological

needs. Descriptive statistics methods became a methodological tool of the conducted research. The results of the empirical analysis have shown that there is a positive correlation between street commerce and the well-being of urban populations. In addition, it is found that about 37.9% of people involved in street trading are experiencing problems as a result of tightening regulatory regulations by the state. The study recommended that government officials, NGOs, international institutions, as well as researchers dealing with this issue. The government should come forward to create and enforce legislation for the street vending practices. The formation of a vending federation supporting vending activities in informal sector is the need of the time.

Adedeji, Fadamiro and Adeoye, (2017) <sup>[2]</sup> conducted a study to examine spatial implications of street trading in Osogbo traditional city centre, Nigeria. The aim of this study is to analyze the characteristics of street trading and its implications on urban open spaces vis-a-vis the landscape and accessibility in the city centre. Purposive sampling of 12 streets and their streetscapes that are mostly used for informal trading in Osogbo were investigated. Total sample size of 180 informal traders was randomly selected from the streets to elicit necessary information on their activities. A descriptive analysis of the data collected through physical observation and questionnaire survey was carried out. The results show that the activity has serious negative impacts on accessibility, erection of illegal structures, traffic congestion, solid waste generation, auto-accidents and deface of urban aesthetics. Control option favours inclusive principles of postmodernism in the landscape design of streets and streetscapes as public infrastructure. The study recommended that urban renewal strategies to ameliorate street trading in Osogbo and approach that could be adopted in other cities of developing countries at large.

### 3. Literature Gaps

Owing to the literature reviewed, Oli, (2021) <sup>[18]</sup> conducted a study to determine the impact of street hawking on the social and physical wellbeing of children in Nigeria. The study failed to take pre-estimation test before estimate of parameters. Musa, Oguiche and Onyekwulu, (2020) <sup>[12]</sup> conducted a study to investigate the environmental impact of hawking along the Outer Northern Expressway (ONEX), Federal Capital Territory Abuja, Nigeria. The study failed to collect data from Lagos Inland. The current study will bridge the gap by examining the environmental effect of urban street trading on solid waste generation as well as incompatible land uses in Ogui Junction Enugu State Nigeria.

### 4. Methodology

The research design was descriptive survey method. Study Area was Enugu State Nigeria. The sample size of 400 respondents were drawn from population of 772,664 (Projected Population Census, 2022) residential people in Enugu urban area. The choice for only urban street traders was due to accessibility and availability of data. The study used structured questionnaire to obtain data. Research questions of the study were answered using mean score and standard deviation. The hypotheses were tested using single regression. Statistical Package for Social Science (SPSS) is computer Application Software was used for the data analysis.

**4.1 Data Presentation**

Four hundred (400) copies of questionnaire were designed and distributed to the respondents. Out of the 400 Questionnaires distributed, 358 (90%) were completed and returned while 42 (10%) were not returned. Therefore, 90

percent respondents were a good representation. The Table 1 showed the respondents profile in frequency and percentage distribution of gender, age bracket, marital status and educational qualification.

**Table 1:** Comprehensive Demographic distribution of the Respondents

Title	Frequency	Percentage
Questionnaire Distributed	400	100%
Returned Questionnaire	358	90%
Not Returned Questionnaire	42	10%
<b>Gender</b>		
Female	213	59.5%
Male	145	40.5%
<b>Age Bracket</b>		
20-30 Years	153	42.7%
31-40 Years	111	31.0%
41-50 Years	66	18.4%
51Years – above	28	7.8%
<b>Marital Status</b>		
Married	223	62.3%
Single	125	34.9%
Widow/widower	7	1.9%
Divorce	3	0.8%
<b>Educational Qualification</b>		
HND/B.sc	230	64.2%
MBA/M.sc	125	34.9%
Ph.D	3	1.10%

Sources: Field Survey, 2023

**Table 2:** Mean rating of responses of respondents on what is the effect the environmental effects of urban street trading on solid waste generation in Ogui Junction Enugu State Nigeria

S. No	Question Items	VGE (5)	GE (4)	ME (3)	LE (2)	VLE (1)	Total	Mean	SD
1	Street hawking causes environmental degradation by littering the road with dirt and impeding movement on pedestrian bridge.	780	496	174	24	8	1475	4.14	0.0029
		156	124	58	12	8	358		
		44%	34%	16%	3%	2%	100%		
2	The sheer volume of waste generated through hawking activities poses a significant challenge for environmental protection and sustainability in the city	620	624	144	40	10	1438	4.02	0.0027
		124	156	48	20	10	358		
		35%	44%	13%	5%	2%	100%		
3	Street vending in Nigeria has exposed children to abuse such as physical injuries, abandonment, sexual abuse, and child labour	1065	364	126	18	3	1576	4.40	0.0034
		213	91	42	9	3	358		
		59%	25%	12%	2%	0.8%	100%		
4	Street vending in Nigeria impede the flow of police, ambulance, and other emergency vehicles.	985	416	111	24	8	1544	4.31	0.0032
		197	104	37	12	8	358		
		55%	29%	10%	3%	2%	100%		
<b>Grand Mean</b>								<b>4.218</b>	<b>0.0031</b>

Source: Field Survey, 2023

**4.2 Data Analysis**

**Question One:** What is the effect the environmental effects of urban street trading on solid waste generation in Ogui Junction Enugu State Nigeria?

This Table 2 showed the opinion of respondents on what is the effect the environmental effects of urban street trading on solid waste generation in Ogui Junction Enugu State Nigeria. The respondents are in agreement with all the items. The study thereby revealed that urban Street trading

has no significant environmental effects on solid waste generation in Ogui Junction Enugu State Nigeria since street hawking causes environmental degradation by littering the road with dirt and impeding movement on pedestrian bridge (Grand-mean 4.218 was greater than the cutoff point 3).

**Question Two:** What is the effect the environmental effects of urban street trading on incompatible in land uses Lagos Island Nigeria?

**Table 3:** Mean rating of responses from respondents on what is the effect the environmental effects of urban street trading on incompatible in land uses Lagos Island Nigeria?

S. No	Question Items	VGE (5)	GE (4)	ME (3)	LE (2)	VLE (1)	Total	Mean	SD
1	Street vending increase chances of constant noise and air pollution not only create an unpleasant urban environment	780	496	174	24	8	1475	4.14	0.0029
		156	124	58	12	8	358		
		44%	34%	16%	3%	2%	100%		
2	Street vending often result in the blockage of the water routes, crowded building and also contribute to health issues and deteriorating air quality in the city	620	624	144	40	10	1438	4.02	0.0027
		124	156	48	20	10	358		
		35%	44%	13%	5%	2%	100%		
3	Street vending often result to erection of illegal structures, solid waste generation, traffic congestion, auto-accident, and deface of urban aesthetics.	1065	364	126	18	3	1576	4.40	0.0034
		213	91	42	9	3	358		
		59%	25%	12%	2%	0.8%	100%		
4	Street vending often increases the scale of tragedy in the event of a major fire, explosion, or toxic gas escape.	985	416	111	24	8	1544	4.31	0.0032
		197	104	37	12	8	358		
		55%	29%	10%	3%	2%	100%		
<b>Grand Mean</b>								<b>4.218</b>	<b>0.0031</b>

Source: Field Survey, 2023

This table showed the opinion of respondents on what is the effect the environmental effects of urban street trading on incompatible in land uses Lagos Island Nigeria. The respondents are in agreement with all the items. The study thereby revealed that urban street trading has significant environmental effects on incompatible land uses in Ogui Junction Enugu State Nigeria since street vending often result to erection of illegal structures, solid waste generation, traffic congestion, auto-accident, and deface of urban aesthetics (Grand-mean 4.218 was greater than the cutoff point 3).

**4.3 Test of Hypotheses**

The four hypotheses were formulated for this study and will be tested and a decision taken is based on the rule below.

**Decision rule: Reject Hi if P-value > 0.01**

**4.3.1 Hypothesis One**

H<sub>3</sub> = Urban Street trading has no significant environmental effects on solid waste generation in Ogui Junction Enugu State Nigeria.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.826 <sup>a</sup>	.933	.932	.30129

a. Predictors: (Constant), Urban street trading

ANOVA <sup>a</sup>						
Model	Sum of Squares	Df	Mean Square	F	Sig.	
1	Regression	41.911	1	41.911	13.692	.000 <sup>b</sup>
	Residual	1103.487	357	3.091		
	Total	1145.398	358			

a. Dependent Variable: Solid waste generation  
b. Predictors: (Constant), Urban street trading

Coefficients <sup>a</sup>						
Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	
	B	Std. Error	Beta			
1	(Constant)	.528	.109		4.846	.000
	Urban street trading	.325	.045	.966	7.238	.000

a. Dependent Variable: Solid waste generation

In testing this hypothesis, urban street trading was regressed against solid waste generation. The result of the single-regression analysis showed the model to identify the environmental effects of urban street trading on solid waste generation in Ogui Junction Enugu State Nigeria.

$$\text{Urban street trading} = 0.528 + 0.325 \text{ Solid waste generation}$$

The empirical result showed that the coefficient of urban street trading has positive effect on solid waste generation; it means that urban street trading has positive and direct effect on solid waste generation. The results of the t – statistics denoted that the coefficient of urban street trading was statistically significance. This was because observed values of t – statistics (48.908) was greater than its P-values (0.000). The results of the F – statistical test showed that the overall regression of the hypothesis four was statistically significance. This was because observed value of the F – statistics (13.692) was greater than its P-value (0.000). Again, our empirical result showed that the Pearson product moment correlation analysis (r) was 0.826. The strength of relationship between the two variables was high. However, we rejected the null hypothesis and concluded that urban Street trading has significant environmental effects on solid waste generation in Ogui Junction Enugu State Nigeria.

**4.3.2 Test of Hypotheses**

H<sub>4</sub> = Urban Street trading has significant environmental effects on incompatible land uses in Ogui Junction Enugu State Nigeria.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.801 <sup>a</sup>	.866	.865	.26055

a. Predictors: (Constant), Urban street trading

ANOVA <sup>a</sup>						
Model	Sum of Squares	Df	Mean Square	F	Sig.	
1	Regression	67.881	1	67.881	9.604	.000 <sup>b</sup>
	Residual	2523.276	357	7.068		
	Total	2591.157	358			

a. Dependent Variable: Incompatible land uses  
b. Predictors: (Constant), Urban street trading

Coefficients <sup>a</sup>						
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	.366	.089		4.121	.000
	Urban street trading	.780	.082	.931	9.516	.000

a. Dependent Variable: Incompatible land uses

In testing this hypothesis, urban street trading was regressed against incompatible land uses. The result of the single-regression analysis showed the model to determine the environmental effects of urban street trading on incompatible land uses in Ogui Junction Enugu State Nigeria.

$$\text{Incompatible land uses} = 0.366 + 0.780 \text{ Urban street trading}$$

The empirical result showed that the coefficient of urban street trading has positive effect on incompatible land uses; it means that urban street trading has positive and direct effect on incompatible land uses. The results of the *t* – statistics denoted that the coefficient of urban street trading was statistically significance. This is because observed values of *t* – statistics (9.516) was greater than its P-values (0.000). The results of the *F* – statistical test showed that the overall regression of the hypothesis two was statistically significance. This was because observed value of the *F* – statistics (9.604) was great than its P-value (0.000). Again, our empirical result showed that the Pearson product moment correlation analysis (*r*) was 0.801. The strength of relationship between the two variables was high. However, we rejected the null hypothesis and concluded that urban Street trading has no significant environmental effects on incompatible land uses in Ogui Junction Enugu State Nigeria.

## 5. Discussion of Findings

### Environmental effects of urban street trading on solid waste generation in Ogui Junction Enugu State Nigeria.

The findings of the study revealed that urban Street trading has no significant environmental effects on solid waste generation in Ogui Junction Enugu State Nigeria since street hawking causes environmental degradation by littering the road with dirt and impeding movement on pedestrian bridge (*t*-statistic; 7.238; P-value; 0.000 < Sig-value; 0.05). The findings of the study revealed that Hingha, Bockarie, Bompay and Koroma, (2023)<sup>[10]</sup> that conducted a study to investigate the effects of street trading on girls-child education in Kenema City, Sierra Leone. Specifically, the study sought to evaluate the challenges associated with street trading, its impact on girls-child education, and possible recommendations for curbing street trading were pinpointed. The data analytical techniques simple percentage and frequency distribution. Sixty (60) respondents were interviewed in all, 50 school-going girls within the age bracket of 5-18 years and 10 parents (26 years and above). The findings of the study will be useful to the Government of Sierra Leone, Non-governmental organizations, policy-making institutions, and the general public. This study will also provide an insight on the causes of the street trade by school-going girls.

### Environmental effects of urban street trading on incompatible land uses in Ogui Junction Enugu State Nigeria.

The findings of the study revealed that urban street trading has significant environmental effects on incompatible land uses in Ogui Junction Enugu State Nigeria since street vending often result to erection of illegal structures, solid waste generation, traffic congestion, auto-accident, and deface of urban aesthetics (*t*-statistic; 9.516; P-value; 0.000

< Sig-value; 0.05). The outcome of the study is in line with the study of Salem, Haitham, Mohammad, Saleh and Shakir, (2022)<sup>[22]</sup> that conducted a study to ascertain the impact of urban culture on street vending in Baghdad, Iraq. Specifically, the study sought to test the positive effect of urban culture on street vending using multiple mediations of consumption patterns, resistance, and microfinance. We tested a sample of 425 responses that reflect the public opinion in Baghdad, Iraq. The data analytical technique was partial least squares–based structural equation modeling and mediation analysis. We found that resistance mediates the effect of urban culture on street vending; low-income consumption and resistance sequentially mediate the effect of urban culture on street vending, while resistance mediates the effect of a lack of microfinance on street vending. The direct impact of culture on street vending is not significant, and a lack of microfinance positively influences the pervasiveness of trading on streets. The study recommended that the designation of a key contact organization / office in charge of street vendors' business will go a long way to reduce the menace of hawking and vending.

## 5.1 Summary of Findings

The following are the major findings of the study:

1. The findings of the study revealed that urban Street trading has no significant environmental effects on solid waste generation in Ogui Junction Enugu State Nigeria since street hawking causes environmental degradation by littering the road with dirt and impeding movement on pedestrian bridge (*t*-statistic; 7.238; P-value; 0.000 < Sig-value; 0.05).
2. The findings of the study revealed that urban street trading has significant environmental effects on incompatible land uses in Ogui Junction Enugu State Nigeria since street vending often result to erection of illegal structures, solid waste generation, traffic congestion, auto-accident, and deface of urban aesthetics (*t*-statistic; 9.516; P-value; 0.000 < Sig-value; 0.05).

## 5.2 Conclusion

The study concluded that there is negative and significant environmental effects of urban street trading in Ogui Junction Enugu State Nigeria. The environmental effect of urban street trading includes solid waste generation and incompatible land uses in Ogui Junction Enugu State Nigeria. Street vending exposes young girl to sexual abuse in form of rape, harassment, and molestation, fraudsters and ritual murderers, the sheer volume of waste generated through hawking activities poses a significant challenge for environmental protection and sustainability in the city, street vending in Nigeria has exposed children to abuse such as physical injuries, abandonment, sexual abuse, and child labour, street vending often result to erection of illegal structures, solid waste generation, traffic congestion, auto-accident, and deface of urban aesthetics. Hawking is a source of daily livelihood for many people, especially as steppingstone towards better and permanent jobs in the future. Categories of street hawkers commonly sold items such as fruits, sachet water, toys, mobile phone credit cards, shoes and sandals. Hawkers who hawked on full time basis do not do any alternative job apart from hawking and do not belong to any association of hawkers.

### 5.3 Recommendations

Based on the findings of this study, the following recommendations were made.

1. Government should effectively enforce the bye laws to regulate the activities of street hawkers and ensure that the rules and regulations are obeyed to the latter. With this in place street will be virtually devoid of congestion, chaos, filth, human and vehicular traffic. It is recommended that the state should consider introducing a licensing regime under which all hawkers would have to obtain a license which should spell out the conditions under which they could operate.
2. Government should regularly engage waste management companies in cleaning of our streets to ensure the sanitation problems on our streets are drastically reduced. Government alternative places must be made available to hawkers to display their wares at affordable price. These places include market stalls, shop or store and containers. The hawkers should be encouraged and assisted by non-governmental organizations, governmental organizations, and civil societies among others to form more vibrant association that will advocate for their welfare and champion their course.

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