Research Article

COMPARATIVE ASSESSMENT OF THE IMPACTS OF SOCIOECONOMIC STATUS ON SLUM RESIDENTS' VULNERABILITY IN SOUTHWESTERN NIGERIA

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Abstract

Urban poor mainly live in slums and the risks of living in slum environments are overbearing on their lives and wellbeing. This work compares socio-economic situation and its implications on vulnerability of slum residents in South-western Nigeria. Primary and secondary data obtained via observation, interview and questionnaire administration were used. The main slum environments in the capital cities of the six states in the region were purposefully chosen. Google Earth was used to delineate the slum areas and count the number of buildings. Copies of questionnaire were administered of the (house head) of 20th residential household (20%) of the study areas. Since the sizes of slum areas differ, the number of houses as well as the number of copies of questionnaire administered also differs. 1, 271 copies of questionnaire were administered across the slum areas in the six states but only 1060 was retried and used. Data obtained were analysed with ANOVA in (SPSS) Statistical Package for Social Scientist was used to compare and test the set hypothesis at P=0.05. The work revealed poor but similar socioeconomic and vulnerability levels of slum residents to environmental stressors, health and psychological torture. The work proposed interventionist approaches; economic, environmental and individual. The work will be of tremendous use to policy makers, urban planners and academic community.

Keywords: Slums, Socioeconomic Status, Poverty, Vulnerability and ANOVA

INTRODUCTION

The gradual shift in residence of human population from rural to urban is the main cause of the typical humanitarian crisis in our cities of today. The perceived and actual opportunities offered by the cities are bringing rural dwellers into them. The rapid urbanization that results is a powerful and irreversible process that has raised 'red flag'. Among the challenges of this shift is increasing number of urban dwellers crammed in informal sections of these cities especially slums since the dwellers do not have the wherewithal to live in a decent environment. The word slum was initially used to describe a "room of low repute" or "low, unfrequented parts of the town". It is a highly populated urban residential area with substandard housing, having poor sanitation and necessary facilities as well as poor access to safe water, living space and security of tenure. According to John *el at* (2020) nearly 1 billion people live in slums and the number will continue to grow. A UN report (2016) described the living conditions of the slum dwellers as the one characterized by overcrowding, poor tenure security, poor access to infrastructure, sanitary facilities and safe drinking water. Slums and poverty are closely related and mutually reinforcing. Slums are designated areas where it is easiest to see poor people in the highest concentrations and the worst conditions UN HABITAT (2003). Linda *et al.* (2015) opined that poverty is a socio-economic issue; it is the strongest actor that has negative influence on individuals' economic activities; it is a variable that determines ones' socioeconomic status and individuals' or groups' position in the hierarchical social structure which depends on a combination of variables including place of residence. Slum conditions are caused by poverty which are mutually reinforcing.

It is not surprising that the features of the settlement are often characteristics of the people living in them. Since slums differ, so are the levels of deprivation and it cannot be assumed that those living in slums that appear physically uniform all have the same wants/needs demands or are equally vulnerable. Vulnerability is susceptibility, defenselessness, insecurity and exposure to risks, shocks stress and inability to cope, meet basic needs and sustain livelihood Robert (2006) and Adger (2006). Pelling (2003) defines vulnerability as the exposure to risks and an inability to avoid or absorb potential harm. Vulnerability involves a combination of factors that determine the degree to which someone's life, livelihood, property and other assets are put at risk by a discrete and identifiable event in nature and in society Wisner (2005). Slum residents are at the lowest helm of socioeconomic strata in urban centers, they are the most vulnerable to multiple stressors, social and environmental hazards resulting from human-environment interaction.

Literature review and theoretical underpinning

Socioeconomic status is the combination of economic and sociological measure of an individual's or family's economic and social position in relation to others. It was also described as a composite measure of an individual's economic and sociological standing. Chu Lim and colleagues (2013) defined socio-economic status as the position of an individual on a social-economic scale that measures factors such as education, income, type of occupation, place of residence, and, in some populations, heritage and religion. It is a complex assessment measured in a variety of ways that accounts for a person's economic and social position Linda *et al* (2015). (WHO, (2020) and National Centre for Educational Statistics, (2008) opined that SES is often commonly used to depict an economic difference in society as a whole. Poverty is the reason for residing in slum; some slum dwellers are rural migrants who prefer urban poverty to rural poverty. Benjamin *et al* (2013)

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agued that slums may be "poverty traps" and are therefore neither temporary nor a short stop on the way to greater economic opportunities.

Eric in his work: *'Teaching With Poverty In Mind'* cited by US Office of Management and Budget (OMB)(2011) as he defines poor persons as one with income less than that deemed sufficient to purchase basic needs food, shelter, clothing and other essentials. The author goes further to describe poverty as a chronic and debilitating condition that results from multiple adverse synergistic risk factors that affects the mind, body and soul. He categorized poverty into six; *situational poverty* generally caused by a sudden crisis, *generational poverty* occurs in families where at least two generations have been born into poverty, *absolute poverty* involves a scarcity of such necessities as shelter, running water, and food, families who live in absolute poverty tend to focus on day-to-day survival, *relative poverty* refers to the economic status of a family whose income is insufficient to meet its society's average standard of living, *rural poverty* and *urban poverty*: when the urban poor deal with a complex aggregate of chronic and acute stressors (including crowding, violence, and noise) and are dependent on often-inadequate large-city services.

Global Report in Human Settlement (2003) reported that poverty in urban areas is increasing and there are now higher numbers of the 'poorest of the poor' in urban cantres throughout the world than at any previous time and that the urban poor are usually able to help themselves more than their rural counterparts. Sufaira (2013) added that urban poverty is severe, pervasive and largely unacknowledged by scholars. The acceleration in the rate of urbanization has been accompanied by an equally alarming increase in urban poverty and slums are the most visible manifestation of poverty (WHO 2005). Bamidele (2013) linked poverty, slum dwelling and poor housing, the author agued that poverty indeed informed slum dwelling and poor housing. Sufaira (2013) believed that slums remain the product of socio-economic and cultural conditions of a particular social system inhibiting the physical, mental, moral and social development of the individuals. According to the latest Global Report on Human Settlements, 43% of the urban population in developing regions lives in slums. In the least developed countries, 78% of urban residents are slum dwellers.

WHO (2005) have classified urban poverty into various dimensions; the first group are the *Low Income Group*; are the owns bellow poverty line, many of those that find it difficult to participate in the labour market, their wages or incomes below nominal poverty line, this group usually lack other mean of support. Thee second group is the *Low human capital group, or 'capability poverty'* usually, the group has low education a poor health, they are characterized by chronic poverty and hearth shock. The third group is the minority, they are known as *Low social capital group*, the common features are; shortage of protective network against households shock, weak patronage on the labour market; labelling and exclusion. The fourth group is *Low financial capital group*; they lack income generating and productive asset. Satterthwaite (2000) as cited by WHO (2005) typologise urban poverty into eight, *i) Those with inadequate income*; they lack adequate necessities like food, safe and sufficient water, they are indebted and the repayments reduces the available income for necessities. *ii) Those with Inadequate and unstable asset base*, they suffer inadequacies in non-material and material needs like educational and housing. This could be at individuals, households or communities levels; iii) *Those without adequate shelters;* they reside in houses with poor quality as well as overcrowded and insecure environment; *iv) Those that lack adequate provision of public infrastructure;* accessibility, piped water, sanitation, which increases their level of vulnerability; *v) Those without adequate provision for basic services* such as health care and emergency services, public transport, communications, law enforcement day care/schools/vocational training; *iv) Those with poor or no safety net that can guarantee be maintained consumption and sustainable access to shelter and health care when income drops or ceases; vii) Those without adequate legal protection against civil and political rights*, protection from violence and crimes, health and safety, environmental health and protection from discrimination and exploitation; *viii) Those without any voice / power,* those that cannot receive entitlements, organizing themselves to make demands and getting a fair response; or even of receiving support for developing their own initiatives Popul (2016).

The principal causes of poverty are poor governance as a result of bad leadership, corruption, poor infrastructure, limited employment opportunities; poor resource usage creates an imbalance in society. This has manifested in imbalanced economy systems poor environment, and inappropriate utilization of land, increase in population imbalance, diseases and poor health www.weforum.org. The effects of poverty include lacks and all-round insufficiencies; poor health, malnutrition, poor education, slum dwelling and homelessness as well as social and psychological problems. A Word Bank Report (2018) described poverty as having involves a complex array of risk factors that adversely affect the population in a multitude of ways. The four primary risk factors afflicting families living in poverty are emotional and social challenges, acute and chronic stressors cognitive lags and health and safety issues.

David (2019) has identified the causes of poverty as *behavioral, structural and political.* Behavioral theories concentrate on individual behaviors as driven by incentives and culture, Structural theories emphasized the demographic and labour market context, which causes behaviour and poverty while political theories contend that power and institutions cause policy, which causes poverty and moderates the relationship between behaviour and poverty. Corroborating this position, Ted (2005) while explaining *Poverty Caused by Individual Deficiencies* according to politically conservative theoreticians blamed individuals in poverty for creating their own problems, and argued that with harder work and better choices the poor could have avoided poverty but can still and remedy their problems". The author goes further to identify other variations of the individual theory of poverty and ascribed poverty as lack of genetic qualities such as intelligence that are not so easily reversed. Since poverty is most times cyclical and culture is socially generated and perpetuated reflecting the interaction of individual and community. *"Culture of poverty"* is the transmission over generations of a set of beliefs, values, and skills that are socially generated but individually held. Technically, the culture of poverty is a subculture of poor people in slums/ghettos, poor regions, or social contexts where they develop a shared set of beliefs, values and norms for behavior that are separate from but embedded in the culture of the main

society. Shaw (1996) opined that poverty could be spatial and based on *geographically based theories* of poverty build on the other theories, this theory calls attention to the fact that people, institutions, and cultures in certain areas lack the objective and resources needed to generate well being and income, and that they lack the power to claim redistribution Scientific American (1966) and Lewis (1976) as cited by David (2019). The author concluded that geography of poverty is a spatial expression of the capitalist system. Wilson (1987) opined that the people from slum areas with improved income, good levels of education, skills and exposure are the ones who migrated out of central city locations to other places. Other relevant poverty related theories includes *Poverty Caused by Economic, Political, and Social Distortions or Discrimination* which is a product of poor political and economic problems pronounced in developing countries. Similarly, *Poverty Caused by Cumulative and Cyclical Interdependencies* results from the combination of all known causes of poverty Ted (2020). In my opinion, causes of poverty are many and vary, they include not just individual, family and culturally based but also societal and systemically related. Bad leadership, greed, corruption, laziness, poor legal and economic/financial systems do play significant roles in the socio-economic statuses of slum residents. Scholars over the ages have measured socio-economic statuses with almost the same parameters that includes age, gender, education, marital status, type of occupation, place of residence, level of income/wealth/asset, religion affiliation, ethnic group, population of household/number of children among others [Potter (2005), Omole (2010), Chu *et al* (2013) and Bianca (2015)]. Literature on comparative analysis of socioeconomic situations implication on vulnerability in slum environment is scarce to the best of my knowledge and it is my candid opinion that it has become necessary to compare socioeconomic status and vulnerability of slum residents within and across regions so as to be able to properly seek workable solutions to the challenges of urban poverty in developing countries. Similarly, it has also becomes imperative to distinguish between different levels of poverty with a view to targeting and tailoring available resources at the most vulnerable hence, the objective of this study.

Sources of vulnerability

Cutter (1996) and Cutter et al, (2003) categorized sources of vulnerability into three: first vulnerability as exposure (conditions that make people or places vulnerable to hazard) and secondly, vulnerability as a social condition (measure of resilience to hazard), and third, the integration of potential exposure and societal resilience with a specific focus on places or regions. Adger (2006) also identified food security, livelihood, and sucks related, insufficient real income as sources of vulnerability. Chambers (1969) and Villágran (2006) identified sources of vulnerability as poverty, poor market and deteriorating infrastructure, decreasing donor assistance, decreasing government assistance, drought flood, HIV/AIDS, crop pest and wildlife diseases. The authors based their idea on both the environmental and social vulnerability and identified characteristics of the vulnerable as the widows, orphans and the children headed homes, the elderly, and people living with HIV, the poorest of the poor, people looking after chronically ill family members, and people with low level of education. In 2009, Oxfam GB carried out a research on urban poverty and vulnerability in slums of Nairobi, several sources of vulnerability were discovered, they include; urban slum environment, unsafe drinking water, poor housing, poor urban governance and corruption, food shortages and associated crises as well as social inequality.

The vulnerable groups and associated problems

Although everyone is vulnerable in slum environment but the degree differ from person to person, household to household, one social group to another and from one community to another. The ability of people and societies to cope with danger varied wildly so is what they have to cope with Chambers (1989). Developing countries, particularly the least developed, have less capacity to cope and are more vulnerable. Some groups are more exposed than others to particular environmental risks: urban populations are exposed to high levels of contaminant and particulate pollution in the air, slum dwellers often lack the minimum protective infrastructure, employees may be exposed to particular hazards in the work place, and the uninformed may simply not know about the threats that surround them. The urban poor, unable to afford alternatives, are frequently forced to live in areas with the worst urban services and most unhealthy environmental conditions, exposed to multiple hazards and increased risk, their vulnerability enhanced by overcrowding. Some communities have become more vulnerable because the scarcity of critical resources such as land, fresh water and forests is contributing to conflicts. These environmental scarcities do usually generate severe wide range of social, health and economic problems which have direct and indirect bearing on human vulnerability Wisner (2000) and Villagrán (2005). Poverty is generally recognized as one of the most important causes of vulnerability to both socio-economic and environmental threats, on the basis that the poor tend to have much lower coping capacities, and thus they bear a disproportionate burden of the impact of problems. Poverty is not the only reason. The very young and the old, women and children are often identified as especially vulnerable groups. Refugees, migrants and other displaced groups lack both the physical resources and social structure necessary to respond to threats although paradoxically they may initially benefit from the high visibility of their plight. The urban poor, on the other hand, usually live in obscurity, their numbers can swell enormously. The mosaics of vulnerability seem so complex as to cast doubt on attempts to describe patterns and estimate trends at the global or even the regional scale. General or gradual economic decline can affect vulnerable groups disproportionately, creating severe but largely hidden hardships Downing and Bakker (2000). They are also more affected by pests and diseases especially vector-borne, respiratory and other infectious diseases. In addition, since many poor inhabit isolated rural environments or the margins and cores of large towns and cities, they are more exposed to social problems associated with economic insecurity, inadequate water supplies and lower health standards.

Hypothesis: There is no statistically significant difference between the implications of socio-economic status and vulnerability of slum residents across the study areas.

Study area

Osun, Oyo, Ekiti, Ondo, Ogun, and Lagos states make up Southwestern Geo-political zone of Nigeria. The area lies between Latitude 6^0 21^1 and 9^0 15 North and longitude 20 311 and 60 001 East (Fig. 1).
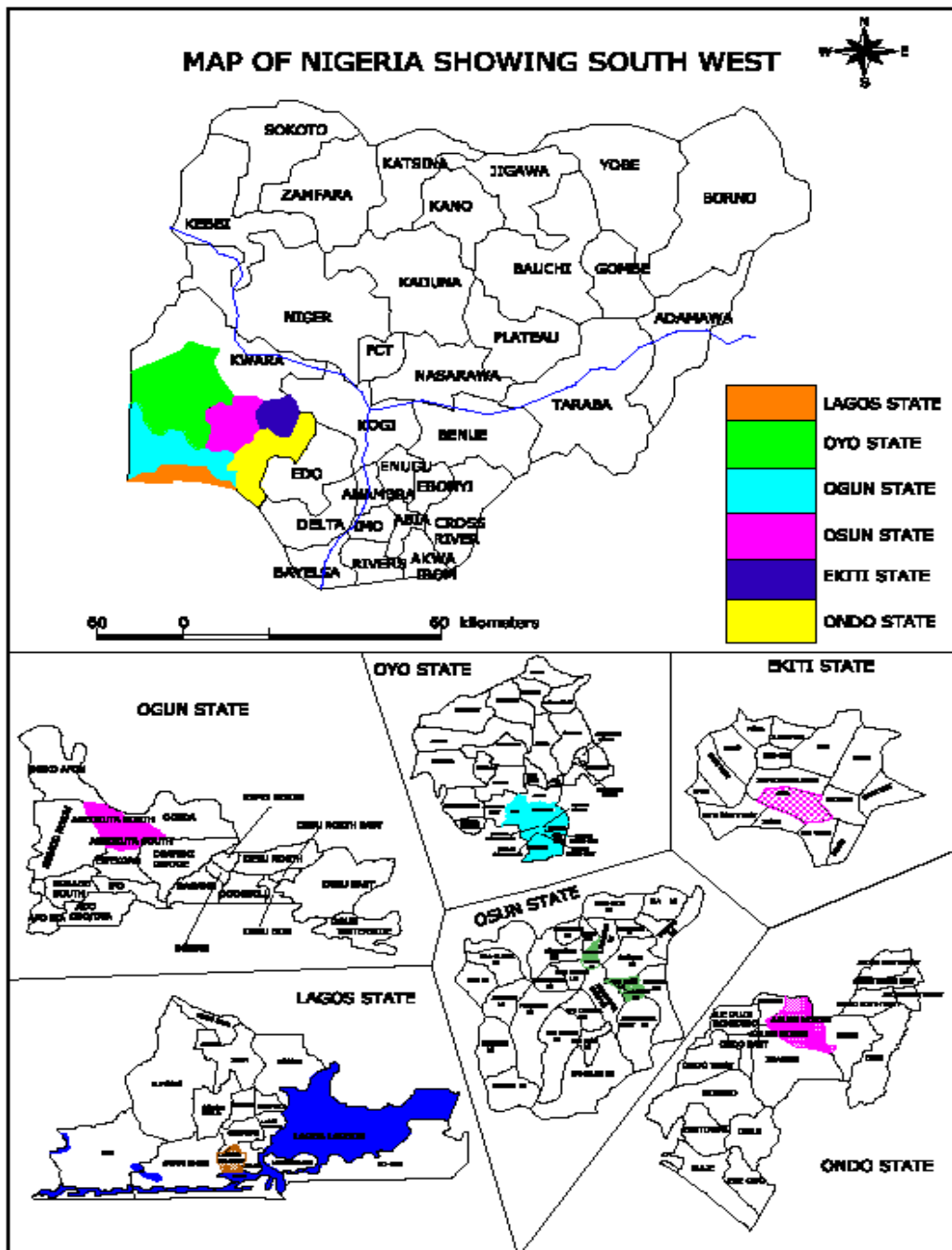
Source: Google Earth (2020)

Figure 1. Nigeria, Southwest and the study areas

The total population of the five states was put at 31, 266,257 persons (as projected from National Population Commission census' results of (2006). The study area is bounded in the east by Edo and Delta states, in the North by Kwara and Kogi states, in the west by the Republic of Benin and in the South Atlantic Ocean. The area has Koppens Af climatic zone and it is mainly populated by Yoruba ethnic group who cohabit peacefully with other Nigerians as well as other foreign nationalities. Southwestern Geo-political zone is acclaimed to be the most urbanized in Nigeria, it has both very large cities like Ibadan and Lagos as well as medium sized cities like Abeokuta, Ado-Ekiti, Akure, Osogbo that serve as the headquarters of the states.

MATERIALS AND METHODS

Most popular slum areas in the capital cities of the states were purposively selected for the study; Ajegunle in Lagos,

Beere/Mopo in Ibadan, Iberekodo in Abeokuta, Ojaoshodi in Akure, Atikankan in Ado-Ekiti and Obate in Osogbo. Google Earth was used to delineate and count the number of buildings (see Figure 1).

Copies of questionnaire were administered on the (house head) of 20th residential household (20%) of the study areas. Since the sizes of slum areas differ, the number of houses as well as the number of questionnaire also differs. (see Table 1). Likert Scale was mainly used to elicit objective responses from the respondents; Strongly Agreed (SA), Agreed (A) Undecided (U), Strongly Disagreed (SD), Disagreed (D). Undecided is discarded. Figures; 4, 3, 2, 1 were then attached to other scales and ANOVA analytical tools were both used to analyse and compare the data. Data obtained were analysed with ANOVA in (SPSS) Statistical Package for Social Scientists to make reasonable deduction do the comparison and test the set hypothesis at $P=0.05$.

Data presentation and analysis

The study employed the age distribution of dependent population and independent/active population as adopted by demographers and social statisticians and used by Agbola (1997). The age brackets of below 19 years and above 55 years forms dependent age groups while the active group (19-54) form the independent age groups. Some homes are headed by young adults aged between (19-37) 35% Ibadan, 18% in Osogbo and Abeokuta, 19% in Lagos, 26% in Akure, and 37% in Ado-Ekiti. The differences seen here are due to certain peculiarities, Ado-Ekiti has the highest because large numbers of migrants from northern part of the country reside in Atikankan (the study area). These migrants normally marry at young age because most of them are not educated like their host counterparts. The case is similar in Ibadan, slum dwellers at Ibadan are mainly indigenes. In all the study areas, the majority of the respondents are dependent population, aged between (38-55 years). Nevertheless, being the home heads, the set has dependent; aged and children who are more vulnerable and in case of any eventuality, these home heads are the ones to shoulder the responsibilities of protecting and caring for them making them (home heads) more vulnerable. Surprisingly, the supposed dependents head of homes, the aged 55 years and above that should be catered for still cater for others. 15% in Ibadan, 21% in Osogbo, 22% in Lagos and Abeokuta, 08% in Akure and16% in Ado-Ekiti, These set of people are weak, possibly poorer, nursing one or two ailments, possibly widow or widower, just like children their immune systems are weak and fragile. There is no statistically significant difference in the age groups of respondents because the p=value 0.996765 is higher than α 0.0 the respondents are all similarly equally vulnerable. relationship, although, they were mostly reluctant to discuss emotional matters with the researcher especially when they are of age.

Table 3 shows the marital status of respondents. It is surprising that sizeable number of the respondents are not in any marital Findings from the study show that 61.0% in Ibadan, 67.1% in Osogbo and Abeokuta, 64.4% in Lagos, 67% in Akure, and 53.8% in Ado-Ekiti and single. Others are married or in relationships that is working. It implies that people in relationship have partners, they can jointly stand against hazardous situations and stresses, they are not lonely as it were and all things being equal, they are not as exposed as unmarried/widow/widowers. Since collective efforts are strong antidotes against the effects of vulnerability. See also (Forkman, 1997 and Diener *et al.,*1999). There is no statistically significant differences in the marital status of respondents because the p=value of 0.987211 and is higher than α 0.05, hence, they are exposed to similar degree of vulnerability. More females than males were found in the respondents in all the study areas; in Ibadan 51% are female while 49% are males, 61.9% female as against 38.1% males in Abekuta, 56.3% female as against 43.8% in Ado- Ekiti, 53.3% females as against 43.8% males, 59.2% against 48.8% males in Lagos, 61.2% female as against male 38%. Females are generally more vulnerable than males as a result of their make-up and special responsibilities they shoulder; cooking, fetching water from distant, child bearing and others. Even Bible, the holy book describes female folks as weaker vessels. Women are more vulnerable everywhere in the world. By implication, majority of respondents are vulnerability in all the study areas. P=value is 0.903788. P-value is greater than α, (0.05), therefore, there is no statistically significant difference in the gender distribution of respondents. The three main religions in Nigeria are found at all the study areas; Christians are 35.5% in Ibadan, 34.0% against Muslims and 12.5% traditional worshipers, 38.8% Christians in Osogbo against 48.2% Muslims and 12.0% traditionalists in the study area. 42.8% Christians in Abeokuta, 34.6% and 22.7% traditionalists.

Table 1. Sample and Sampling Method

Cities	NO of Buildings	Comm. Buildings	Residential Buildings	Quest. Administered	Quest. Retrieved
Ibadan	5013	251	4762	250	200
Oshogbo	3914	306	3608	180	170
Abeokuta	4193	80	4093	204	176
Lagos	4616	130	3886	224	194
Akure	3796	106	3090	195	160
Ado-Ekiti	3964	172	3715	185	160

Source: Authors' Fieldwork, (2020)

Table 2. Age Distribution in frequencies, percentages, summary of distribution and ANOVA

Cities	Ibadan		Osogbo		Abeokuta		Lagos		Akure		Ado-Ekiti	
Age Range	Frq.	%	Frq.	%	Frq	%	Frq	%	Frq	%	Frq	%
19-36yrs	70	35.0	31	18.2	32	18.2	38	19.9	42	26.3	60	37.5
37-54yrs	99	49.5	103	60.6	105	59.7	110	57.6	104	65.0	73	45.6
≥ 55yrs	31	15.5	36	21.2	39	22.2	43	22.5	14	8.8	27	16.9
Total	200	100	170	100	176	100	191	100	160	100	160	100

Groups	Count	Sum	Average	Variance
Ibadan	3	200	66.66667	1164.333
Osogbo	3	170	56.66667	1616.333
Abeokuta	3	176	58.66667	1622.333
Lagos	3	191	63.66667	1616.333
Akure	3	160	53.33333	2121.333
Ado-Ekiti	3	160	53.33333	562.3333
ANOVA				
Source of Variation	**SS**	**df**	**MS**	**F**	**P-Value**	**F crit**
Between Groups	449.6111	5	89.92222	0.061994	0.996765	3.105875
Within Groups	17406	12	1450.5
Total	17855.61	17

Source: Fieldwork, (2020)

Table 3. Marital Statuses in frequencies, percentages summary of distribution and ANOVA

Cities	Ibadan		Osogbo		Abeokuta		Lagos		Akure		Ado-Ekiti	
Age Range	Frq	%	Frq	%	Frq	%	Frq.	%	Frq.	%	Frq.	%
Single	122	61	114	67	119	67.6	123	64.4	108	67.5	86	53.8
Married	78	39.	56	32.	57	32.4	68	35.6	52	32	74	46.3
Total	200	100	170	100	176	100	191	100	160	100	160	100

Groups	Count	Sum	Average	Variance
Ibadan	2	200	100	968
Osogbo	2	170	85	1682
Abeokuta	2	176	88	1922
Lagos	2	191	95.5	1512.5
Akure	2	160	80	1568
Ado-Ekiti	2	160	80	72

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	674.4167	5	134.8833	0.104771	0.987211	4.387374
Within Groups	7724.5	6	1287.417			
Total	8398.917	11				

Source: Fieldwork, (2020)

Table 3. Gender distribution in frequencies, percentages, summary of distribution and ANOVA

Cities	Ibadan		Osogbo		Abeokuta		Lagos		Akure		Ado-Ekiti	
Gender	Frq	%	Frq.	%	Frq.	%	Frq.	%	Frq.	%	Frq.	%
Male	95	49	66	38.8	70	40	78	40.8	90	56.3	70	43.8
Female	105	51	104	61.2	100	60	113	59.2	70	43.8	90	56.3
Total	200	100	170	100	176	100	191	100	160	100	160	100

Groups	Count	Sum	Average	Variance
Ibadan	2	200	100	200
Osogbo	2	170	85	722
Abeokuta	2	176	88	882
Akure	2	191	95.5	612.5
Lagos	2	160	80	200
Ado-Ekiti	2	160	80	200

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	674.4167	5	134.8833	0.287342	0.903788	4.387374
Within Groups	2816.5	6	469.4167			
Total	3490.917	11				

Source: Fieldwork, (2020)

Table 4. Religious inclination in frequencies, percentages, summary of distribution and ANOVA

Cities	Ibadan		Osogbo		Abeokuta		Lagos		Akure		Ado-Ekiti	
Religion	Frq.	%	Frq	Frq	Frq	%	Frq	%	Frq	%	Freq.	%
Christianity	107	53.5	66	38.8	75	42.6	78	40.8	69	43.1	59	36.9
Islam	68	34.0	84	48.2	61	34.7	113	59.2	61	38.1	80	50.0
Traditional	25	12.5	20	12.0	40	22.7	00	00	30	18.8	21	13.1
Total	200	100	170	100	176	100	191	100	160	100	160	100

Groups	Count	Sum	Average	Variance
Ibadan	3	200	66.66667	1682.333
Osogbo	3	170	56.66667	332.3333
Abeokuta	3	176	58.66667	310.3333
Lagos	3	191	63.66667	446.3333
Akure	3	160	53.33333	424.3333
Ado-Ekiti	3	160	53.33333	894.3333

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	449.6111	5	89.92222	0.131915	0.981937	3.105875
Within Groups	8180	12	681.6667			

Source: Fieldwork, (2020)

40.8% Christians and 59.2% Muslims in Lagos, 43.1% Christians in Akure 38.1% Muslims and 18.8 traditional worshipers, 36.9% Christians in Ado-Ekiti, 50.0% Muslims and 13.1% study areas. Both Christian and Islamic religions carry the lion share while the traditional worshipers are lesser in number. Ordinarily, religion beliefs should not have direct relationship with vulnerability in slum areas, but the regular demand and use of water for ablution by Muslims may add to the burden of water demand as well as creating some sort of

run-off around mosques, this is always noticed and persistent since the faithful do this five times daily, it creates an unpleasant sight in the already blighted environment. This run-off creates rooms for mosquitoes to breed. Similarly, some Christians especially (white garment churches) do have their churches close to rivers or streams; they are not only vulnerable to flood and water lodging, but also reptiles because some setbacks along rivers/streams channels are always bushy. They are also susceptible to mosquitoes' bites and the

consequence Omotoso and Oyeniyi, (2015), Oyeniyi, Owoeye and Ibimilua, (2016). The noise from mosques and churches cannot be ignored; they expose the residents to stress and other health and psychological effects. Fetish objects is used for sacrifices in shrines are usually found at the core of our cities, e. g, one at opposite the palace at Osogbo, Isale-Itoku, Abeokuta as shown in. Of note are offensive odours from gory sites, dirty environments during festive periods, fearful appearances of Masquerades, and noise of songs, drums and gunshot as part of festive activities in all study sites. Public assaults are also common at festive periods because some masquerades and their follower whip/flog with canes and innocent/onlookers or tourists may be assaulted with charms. P=value is greater than α (0.05); therefore, there is no statistically significant difference between the religious inclinations of respondents and the implications on vulnerability. Majority of the respondents in all the six study areas do not have any formal training; 61.5% in Ibadan, 50.6 in Osogbo, 51.8% in Lagos, 48.8% in Akure, 50.0% in Abeokuta, 54.4% in Ado-Ekiti. This people do not have any specific training or skill, they do and survive on daily paid energy sapping jobs, which include labour men and women at construction sites, according to them there are places they assemble every morning struggling to be picked for the day, on arrival of would-be employers. Slicing of firewood, manual sinking of wells, all forms of petty trading, scavenging, and begging, commercial motorcycling destitute, and sex workers are major occupations.

On the average, one quarter of the respondents in all the study areas is semi-skilled; they learnt one craft or trade or the other, but most of them do not even use the skills initially acquired as gathered from observation and interview, they joined the unskilled in their job choices claiming lack of capital to start their learnt trade as well as the needed tools. Few of them claimed they are still on the job but poor power supply and low patronage are their major challenges. Among the respondents, 16.0% in Ibadan, 24.1% in Lagos, 22.9% in Osogbo, 14.4% in Akure, 20.0% in Ado-Ekiti had semiformal training. The situation of the respondents' training status does not play any significant roles in their socio-economic lives. By implication, formal, informal or semiformal training in a convoluted economy like that of Nigeria do not usually manifest in improved standard of living because of the hash socio-economic environment and attitudinal disposition of some Nigerians. Hence, these sorts of trainings do not guarantee ability to withstand consequences of poor environment and associated vulnerability. P=value is 0.997676 while α, is 0.05, P=value is greater than α, therefore, there is no statistically significant difference in the religious inclination of the respondents and by implication, no significant differences in the level of vulnerability across the study areas. The levels of educational attainment vary slightly from one study area to the other especially at the primary and secondary levels. Those with only primary education are: Ibadan 33.0%, Osogbo 22.4%, Lagos 57.7%, Abeokuta 21.1%, Akure 48.8% and Ado-Ekiti 36.3%. That of secondary shows: 52.4% in Lagos, 48.8% in Akure, 45.5% in Ibadan 39.3% in Ado-Ekiti, 57.1% in Osogbo and 56.3 in Abeokuta. Approximately, 20% of the respondents in the study areas have higher education. Primary and secondary levels of education do not offer good enough opportunities for any house head to protect him and his people from harmful effects of living in unhealthy environment. Poverty, lack of access to basic necessities of life like water, housing, food and so on is experienced. The few that have higher education especially in other study areas except Lagos do so because of unemployment and underemployment. The few educated but unemployed and underemployed ones are equally vulnerable to environmental hazards associated with living in slum areas. Higher educational attainment might have empowered the dwellers more. α is at 0.05 while P=value = 0.986788. P=value is greater than α, therefore, there is no statistically significant difference in educational attainment and vulnerability of the respondents. Table 7 x-rays and compares the economic standings/status of the respondents. It reveals that majority of the respondents from all study areas earn less than the minimum wage in the country as at today (2020) which is #18000 thousand naira only about ($37) monthly. Although the government is proposing 30,000 (about $ 71.5) but it has not been paid yet. The figures stand as follows; Lagos 53.4% earn less than #18,000, in Akure 40.0%, 39.0% in Ibadan, 36.3% in Ado-Ekiti, 52.4 in Osogbo and 51.7 in Abeokuta. This group which is the lowest represents a clear evident of abject poverty; surely they belong to the group described as 'food poor' by scholars like, Blaikie *et al.,* (1994), Bohle (2004), Veillagrans, 2006 and Adger, 2006. The other group that earn between #18, 000 - #40,000 are not even better-off, they can hardly feed and also undergo stress as reiterated by Cutter, (2001) and Susan *et al.,*(2003). Very few respondents in the study areas earn #6001 and above; Lagos has the highest 5.7% and the lowest in 0.2% occurred at Ibadan, 0.6% in Osogbo, 5.6% in Abeokuta and 2.4% in Ado-Ekiti.

The wealthier group is those that earn #60,000 and above between 25.4% in Lagos, 21.5% in Ibadan, 24.4% in Ado-Ekiti, 24.7% in Osogbo and 27.6% in Abeokuta. This least group earn between #40,001–60,000. They are the business owners, landlords, and slum lords; they may also deal in illicit drugs, and other illegal business. It can therefore be deduced that majority of slum dwellers are extremely poor, stressed and vulnerable to all effects of not living in safe environment. α=at 0.05 while P=value = 0.990506. P=value is greater than α, therefore, there is no statistically significant difference in income distribution of the respondents; same apply to the level of vulnerability. Dwellers of the six study areas are locals; in Lagos, 55% were born in there while 34.6% were migrants. 53.0% in Akure and 45.0% were migrants, 53.8% were indigene of Ibadan while 46.3% were migrants, 63.3% were Osogbo natives while 34.7% migrants. 64.8% of slum residents in Abeokuta while 32.2% were non indigene. But in Ado-Ekiti, 51.3% were migrants mainly Hausa from Northern Nigeria and Ebira people from Kogi a neighboring State. It is obvious that being an indigene gives a stronger opportunities of accessing 'safety net' of social fabric described as 'social fabric vulnerability' in Chambers (1989) Pressure and Release Model (PAR) as refined by Watts and Bohle (1993). α=at 0.05 while P=value is 0.924133, P=value is greater than α, therefore, there is no statistically significant difference in occupational distribution as well as vulnerability of the respondents to eviction and other forms of stressors and perturbation. Indigenes constitutes the majority in all study areas; 55% in Ibadan, 65.3% in Osogbo and Lagos, 64.4% in Abekuta, 53.8%, 53.8 in Akure and 48.8% in Ado-Ekiti. It can be inferred that the lacals that is the Yourubas area more in number among the residents. α 0.05 while P=value is 0.961894. P=value is greater than α, therefore, there is no statistically significant difference in origins of the respondents as well as their exposure to vulnerability to hazards in slum environment

Table 5. Type of training obtained in frequencies, percentages summary of distribution and ANOVA

Cities	Ibadan		Osogbo		Abeokuta		Lagos		Akure		Ado-Ekiti	
Range	Frq	%	Frq	%	Frq	%	Frq	%	Req	%	Frq	%
Artisan	123	61.5	86	50.6	88	50.0	65	34.0	78	48.8	87	54.4
Labourers	41	20.5	45	26.5	46	26.1	49	25.7	59	36.9	41	25.6
Traders	32	16.0	39	22.9	42	23.9	38	19.9	23	14.4	32	20.0
Office work	4	2.0	00	00	00	00	39	20.4	00	00	00	00
Total	200	100	170	100	176	100	191	100	160	100	160	100

Groups	Count	Sum	Average	Variance
Ibadan	4	200	50	2616.667
Osogbo	4	170	42.5	919
Abeokuta	4	176	44	866.6667
Lagos	4	191	47.75	1097.583
Akure	4	160	40	858
Ado-Ekiti	4	160	40	918

ANOVA

Source of Variation	SS	Df	MS	F	P-value	F crit
Between Groups	337.2083	5	67.44167	0.055615	0.997676	2.772853
Within Groups	21827.75	18	1212.653			
Total	22164.96	23				

Source: Fieldwork, (2020)

Table 6: Educational attainment in frequencies, percentages, summaries and ANOVA

Cities	Ibadan		Osogbo		Abeokuta		Lagos		Akure		Ado-Ekiti	
Educ. Level	Frq	%	Frq	%	Frq	%	Frq	%	Frq	%	Frq	%
None	66	33.0	38	22.4	75	42.6	49	25.7	64	40.0	64	40.0
Informal	91	45.5	97	57.1	61	34.7	100	52.4	57	35.6	57	35.6
Semi-formal	39	19.5	35	20.6	40	22.7	42	22.0	39	24.4	29	18.1
Indifferent	4	2.0	00	00	00	00	00	00	00	00	10	6.3
Total	200	100	170	100	176	100	191	100	160	100	160	100

Group	Count	Sum	Average	Variance
Ibadan	3	200	66.66667	576.3333
Osogbo	3	170	56.66667	1222.333
Abeokuta	3	176	58.66667	1220.333
Lagos	3	191	63.66667	1002.333
Akure	3	160	53.33333	530.3333
Ado-Ekiti	3	160	53.33333	160.3333

ANOVA

Source of Variation	SS	Df	MS	F	P-value	F crit
Between Groups	449.6111	5	89.92222	0.114502	0.986788	3.105875
Within Groups	9424	12	785.3333			
Total	9873.611	17				

Source: Fieldwork, (2020)

Table 7. Income Distributions in frequencies, percentages, summary of distribution and ANOVA

Cities	Ibadan		Osogbo		Abeokuta		Lagos		Akure		Ado-Ekiti	
Income Range	Frq	%	Frq	%	Frq	%	Frq	%	Frq	%	Frq	%
Bellow #18000	78	39.0	89	52.4	91	51.7	102	53.4	64	40.0	64	40.0
#18,001-#40,000	79	39.5	39	22.9	40	22.7	40	20.9	57	35.6	57	35.6
#40,001--#60,000	40	20	40	24	40	20	40	20	39	24.4	39	12.4
#60,001 and above	03	1.5	02	0.7	05	5.6	09	5.7	09	4.4	09	2.4
Total	200	100	170	100	176	100	191	100	160	100	160	100

Groups	Count	Sum	Average	Variance
Ibadan	4	208	52	1140.667
Osogbo	4	179	44.75	1092.25
Abeokuta	4	175	43.75	822.9167
Lagos	4	191	47.75	1041.583
Akure	4	160	40	355.3333
Ado-Ekiti	4	160	40	628.6667

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	430.7083	5	86.14167	0.101714	0.990506	2.772853
Within Groups	15244.25	18	846.9028			
Total	15674.96	23				

Source: Fieldwork, (2020)

Table 8. Occupational distribution in frequencies, percentages summary and ANOVA

Cities	Ibadan		Osogbo		Abeokuta		Lagos		Akure		Ado-Ekiti	
Age Range	Frq	%	Frq	%	Frq	Frq	%	Frq	%	Frq	Frq	%
Artisan	64	32.0	53	31.2	54	30.7	65	34.0	69	43.1	57	35.6
Labourers	69	34.5	48	28.2	49	27.8	49	25.7	35	21.9	40	25.0
Traders	45	22.5	37	21.8	38	21.6	38	19.9	38	23.8	45	28.1
Office work	22	11.0	32	18.8	35	19.9	39	20.4	18	11.3	18	11.3
Total	200	100	170	100	176	100	191	100	160	100	160	100

Groups	Count	Sum	Average	Variance
Ibadan	4	200	50	455.3333
Osogbo	4	170	42.5	93.66667
Abeokuta	4	176	44	80.66667
Lagos	4	191	47.75	156.9167
Akure	4	160	40	451.3333
Ado-Ekiti	4	160	40	266

ANOVA

Source of Variance	SS	Df	MS	F	P-value	F crit
Between Groups	337.2083	5	67.44167	0.269064	0.924133	2.772853
Within Groups	4511.75	18	250.6528			
Total	4848.958	23				

Source: Fieldwork, (2020)

Table 9. Origins of dwellers in Frequency, percentages, summary and ANOVA

Cities	Ibadan		Osogbo		Abeokuta		Lagos		Akure		Ado-Ekiti	
Status	Frq	%	Frq	%	Frq	%	Frq	%	Frq	%	Frq	%
Indigene	110	55.0	111	65.3	114	64.8	125	65.4	86	53.8	78	48.8
Non-Indege.	90	45.0	59	34.7	62	35.2	66	34.6	74	46.3	82	51.3
Total	200	100	170	100	176	100.	191	100	160	100	160	100

Groups	Count	Sum	Average	Variance
Ibadan	2	200	100	72
Osogbo	2	170	85	1352
Abeokuta	2	176	88	1352
Lagos	2	191	95.5	1740.5
Akure	2	160	80	72
Ado-Ekiti	2	160	80	8

iii) ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	674.4167	5	134.8833	0.176069	0.961894	4.387374
Within Groups	4596.5	6	766.0833			
Total	5270.917	11				

Source: Fieldwork, (2020)

Table 10. Length of stay in frequencies, percentages summary and ANOVA

Cities	Ibadan		Osogbo		Abeokuta		Lagos		Akure		Ado-Ekiti	
Length of stay	Frq	%	Frq	%	Feq	%	Frq	%	Frq	%	Frq	%
<20 years	96	48.0	49	28.8	114	64.8	61	31.9	50	28.4	73	45.6
20-49 years	85	42.5	70	41.2	62	35.2	72	37.7	72	40.9	72	45.0
50 and above	19	9.5	51	30.0	00	00	58	30.4	54	30.7	15	9.4
Total	200	100	170	100	176	100	191	100	176	100	160	100

Groups	Count	Sum	Average	Variance
Ibadan	3	200	66.66667	1734.333
Osogbo	3	170	56.66667	134.3333
Abeokuta	3	176	58.66667	137.3333
Lagos	3	191	63.66667	54.33333
Akure	3	160	53.33333	1640.333
Ado-Ekiti	3	160	53.33333	1102.333

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	449.6111	5	89.92222	0.112333	0.98734	3.105875
Within Groups	9606	12	800.5			
Total	10055.61	17				

Source: Fieldwork, (2020)

Table 11. Willingness to Remain in frequencies, percentages

Cities	Ibadan		Osogbo		Abeokuta		Lagos		Akure		Ado-Ekiti	
Cnt. to stay?	Frq	%	Frq	%	Frq	%	Frq	%	Frq	%	Frq	%
Yes	131	65.5	53	31.2	54	30.7	65	34.0	75	46.9	95	59.4
No	69	34.5	117	68.8	122	69.3	126	66.0	85	53.1	65	40.6
Total	200	100	170	100	176	100	191	100	160	100	160	100

Groups	Count	Sum	Average	Variance
Ibadan	3	200	66.66667	1734.333
Osogbo	3	170	56.66667	134.3333
Abeokuta	3	176	58.66667	137.3333
Lagos	3	191	63.66667	54.33333
Akure	3	160	53.33333	1640.333
Ado-Ekiti	3	160	53.33333	1102.333

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	449.6111	5	89.92222	0.112333	0.98734	3.105875
Within Groups	9606	12	800.5			
Total	10055.61	17				

Source: Fieldwork, (2017)

Table 12. Ownership of landed property in frequencies, percentages, summaries and ANOVA

Cities	Ibadan		Osogbo		Abeokuta		Lagos		Akure		Ado-Ekiti	
Ownership	Fiq	%	Frq	%	Frq	%	Frq	%	Frq	%	Frq	%
Yes	129	64.5	98	57.6	100	56.8	111	58.1	57	35.6	93	58.1
No	67	33.5	72	42.4	76	43.2	80	41.9	103	64.4	67	41.9
Indifferent	4	2.0	00	00	00	00	00	00	00	00	00	00
Total	200	100	170	100	176	100	191	100	160	100	160	100

Groups	Count	Sum	Average	Variance
Ibadan	2	200	100	1922
Osogbo	2	170	85	2048
Abeokuta	2	176	88	2312
Lagos	2	191	95.5	1860.5
Akure	2	160	80	50
Ado-Ekit	2	160	80	450

ANOVA

Source of Variation	SS	Df	MS	F	P-value	F crit
Between Groups	674.4167	5	134.8833	0.093642	0.990014	4.387374
Within Groups	8642.5	6	1440.417			
Total	9316.917	11				

Source: Fieldwork, (2020)

SPSS Computer Printout α=at 0.05 while P=value = 0.924133. P=value is greater than α, therefore, there is no statistically significant difference in the length of stay of the respondents. Average of 40% of the respondents in all study areas have stayed between 20-49 years in study areas; 37.9% in Lagos, 40.9% in Akure, 42.2% in Ibadan, 41.1% in Osogbo and 40.9% in Abeokuta. It therefore implies that the dwellers have long years of exposure to the hazardous living condition in the slum areas. As argued by Dilley *et al.,* (2005) and white *et al,.* (2005), the longer the exposure to hazardous or life threatening situation, the higher the degree of vulnerability. Many lives might have been lost and damages in dwellers' bodies see Alexander, 2000 and Chambers, 2006. Dwellers might have also been so used to certain stressors and hazardous conditions as well as developed reliable coping strategies over time (Diener *et al.,*1999). As a measure of residents' disposition to the vulnerable situation in slum environment, willingness to leave or remain in the environment was measured and compared. It is clear that majority of slum dwellers (65.5%) in Beere / Oje, Ibadan prefer to remain in their places. Their homes serve dual purposes of commercial and residential. The homes were inherited and there is no hope of putting enough resources together to build another house, especially when age is not on their sides. The situation is somewhat different in number in other slum environments; 46.9% in Akure, 34.0% in Lagos, 59.4% in Ado-Ekiti, 31.2% in Osogbo, and 30.7% in Abeokuta. In contrast, majority of the respondents in other study areas wants to leave.

Hence larger numbers of residents are not in any way satisfied with the environment. This is a reflection of their awareness of social, emotional stressors, physiological and health implications on their lives and livelihoods are put at risks or are susceptible to daily hazardous condition. α=at 0.05 while P=value = 0.98734. P=value is greater than α (0.05), therefore, there is no statistically significant difference in the willingness to continue to stay in the study areas, the same way, no significant differences in the degree of vulnerability. The difference between prosperity and poverty is property. Landed property owners are considered to be wealthier since house ownership is a measure of wealth and social status. Housing ownership conferred exchange value opportunities to raise cash through rental of a house Okeyinka (2014). It could also be used as collateral for loan to start business or even sold to escape unhealthy environment and start life afresh somewhere else. Therefore, housing ownership confers better capacity to cope with vulnerability. Majority of respondents inherited the landed properties, especially in Ibadan; 64.5%, Abeokuta 56.8%, Osogbo 57.6% and even Lagos, where many of the houses are made of planks, 58.1% still claim ownership. In a nutshell, the locals own their houses through inheritance from not even their direct parents but grandparents of grate-grandparents. The other dwellers rented the houses on room-by room basis; 64.6% in Akure, 41.9% in Ado-Ekiti, 42.4% in Osogbo and 41.9% in Lagos. α =at 0.05 while P=value = 0.990014.

Table 13. Comparison of variables P-value and decision

S/N	Statements/Variables	P-Value	Expected Value α	Decision
1	Age distribution of the respondents	0.996765	0.05	No sig. differ.
2	Marital status of respondents	0.987211	0.05	No sig. differ.
3	Gender distribution of the respondents	0.903788	0.05	No sig. differ.
4	Religions inclination of the respondents	0.981937	0.05	No sig. differ.
5	Type of training of the respondents	0.997676	0.05	No sig. differ.
6	Levees of educational attainment	0.986788	0.05	No sig. differ.
7	Income distribution of the respondents	0.990506	0.05	No sig. differ.
8	Occupational distribution of respondents	0.924133	0.05	No sig. differ.
9	Origin of the respondents	0.961894	0.05	No sig. differ.
10	Length of stay in the study areas	0.98734	0.05	No sig. differ.
11	Willingness to remain in the areas	0.98347	0.05	No sig. differ.
12	Ownership of landed property	0.990014	0.05	No sig. differ.

Source: Authors' Compilation (2020)

P=value is greater than α, therefore, there is no statistically significant difference between the ownership of landed property and associated vulnerability of the respondents across the study areas.

Table 13 shows the comparison of P=value and expected values α=0.05. All statements or variables reveal no statistically significant differences between the socioeconomic status and vulnerability of slum residents among the six study areas.

Summary, Conclusion and Recommendation

Slums and poverty are closely related and mutually reinforcing. Slums are designated areas where it is easiest to see poor people in the highest concentrations and the worst conditions. By implications, most slum dwellers are poor and are highly vulnerable to both the process as well as events of hazards. This work discovered that there is no difference in the level and type of poverty as well as the implication of poverty on vulnerability of the slim residents in the southwestern Nigeria. As long as slums exist, so will the vulnerability, the less access the residents have to the basic needs of good housing, safe drinking water, good sanitation, adequate living space and safe tenure, the more vulnerable/susceptible they would continue to be. The paradigm shift in thinking of solutions slum solutions is in favour of tree main pillars; economic revitalization, smart growth, and sense of place. The time is now to jettison 'top-down' approaches to solving economic problems of slum residents for 'bottom-up' economic growth strategy that will encourage cooperation in investments and capable of creating massive opportunities for the residents as well as transforming the fortune of the region. The leadership should take a comprehensive approach to breaking every step in the cycle that creates and perpetuates poverty and sub-standard living conditions in the slum environments.

The singular and all-encompassing word that could be used to describe suggested solution and coping strategies is **"INTERVENTION"**. Intervention from government at all levels, International Donor and Aid Agenesis, philanthropies, well-wisher and even family members. This intervention could be:

(a) Economic intervention; all forms of economic assistance from non-slum communities or the larger society in the rest of the word.
(b) Environmental intervention; all forms if intervention to improve the environmental quality of the slums.

(c) Social intervention; all forms of social intervention programs from outside slum communities.
(d) Slum community and individuals' intervention; all forms of yielding efforts of human ingenuities; talents, creativities, etc. within the slum communities to take them out of slum environments and/or improve their quality of lives of the residents.

These interventions do two main things:

(i) It neutralizes the terrible and precarious situation of slum dwellers and reduces the extent of vulnerability.
(ii) It provides ways of escape from slum environment, for instance, an economically empowered individual, a socially supported family, a child taken away by a well to do family member etc. may finally escape vulnerability of slum environment.
(iii) Similarly, environmental intervention like smart growth efforts; slum redevelopment, urban renewal and so on. When environmental intervention is successful, slum and its attendant vulnerability is eradicated.

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