

**KNOWLEDGE AND COMPLIANCE LEVEL WITH EDO STATE
SANITATION MANAGEMENT LAWS AMONG TRADERS IN BENIN
METROPOLIS**

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**A RESEARCH REPORT SUBMITTED TO THE DEPARTMENT OF
HEALTH, SAFETY AND ENVIRONMENTAL EDUCATION, FACULTY
IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE
AWARD OF MASTERS DEGREE IN ENVIRONMENTAL AND
SAFETY EDUCATION**

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CERTIFICATION

We, the undersigned, certify that this project was carried out by Ehinomen Augustine AKHATOR of the Department of Health, Safety and Environmental Education, Faculty of Education, University of Benin.

DR. E.O. IGUDIA
(PROJECT SUPERVISOR)

DATE

DR. E.O. IGUDIA
(AG. HEAD OF DEPARTMENT)

DATE

PROF.E.O.S IYAMU
(DEAN, FACULTY OF EDUCATION)

DATE

DEDICATION

This research work is dedicated to God Almighty, the giver of life for sustaining me throughout this program and to my Mother, Whom I call an Extraordinary Mother, for Sacrificing her comfort and pleasure to ensure that I and my Sister are catered for since the passing on of my father, thank you ma. May the good God of Heaven preserve and keep you to reap the fruits of your labour.

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ABSTRACT

The aim of the study was to assess the knowledge and compliance level of Edo State Sanitation Management Laws among traders in Benin metropolis. In the study, five research questions were raised and three were hypothesized.

This study used the descriptive survey research design to carry out the study. The population of this study was 17,417 shop owners in markets in Benin Metropolis. The sample size for this study was 568 respondents. A self-constructed questionnaire was used for the study and the instrument was validated. To ascertain the reliability of the instrument, test re-test reliability method was used. A pearson correlation coefficient score of 0.78 was observed thus, the instrument is reliable. Data collected were analyzed using descriptive statistics of frequency count and percentages. Hypotheses were tested using pearson correlation and one way ANOVA.

It was discovered in the study that majority of the respondents have moderate knowledge towards Edo State Sanitation Management laws; majority of the respondents indicated that they always dump refuse in gutter whenever they are not been watched or monitored; dropped refuse in open space when there is no waste bin; take interest in picking garbage, sometimes wastes around my premises. There is a significant weak and negative relationship between knowledge and compliance with Sanitation management laws among traders in Benin metropolis.

Educational background influenced the compliance of sanitation management laws of traders in Benin metropolis. Based on the findings of the study, the researcher recommended that there is need for proper sensitization of the traders in order to improve their knowledge towards the environment sanitation laws amongst others.

CHAPTER ONE

INTRODUCTION

Background of the Study

Sanitation is a major challenge in most developing countries and this has proved to threaten the social and economic development and even the survival of human being. “There is a need for the environment to be properly sanitized, in order to be free from pathogens” (Acheampong, 2010). Sanitation promotes healthy life and disease free environment. It is very appalling today that many traders do not comply with the provisions made for sanitation management. World Health organization WHO (2011), reported that poor sanitation, poverty, spread of disease and infant mortality are intertwined. The poor food hygiene practice across the country has played a significant role in ethology of food borne diseases. Some of the diseases that arise from poor sanitation are diarrhoea and cholera while deaths resulting from diarrhoea are estimated to be between 1.6 to 2.5 million every year (WHO, 2012).

Danbaba, Nabegu, Binta and Mustapha (2016) reported from their studies that over 10 million productive days would be gained if access to sanitation and water rise to 100 percent. Markets usually attract large gathering of buyers, sellers and especially pre-school children who have accompanied their parents to markets. The interaction between buyers and seller in markets provide opportunities for the spread of communicable diseases with considerable

potential to become endemic and gravitate to epidemic dimensions if not nibbed. Sanitation involves appropriate behaviours as well as the availability of suitable facilities, which work together to form a hygienic environment, also important, is the provision of the right incentive for enforcement of law. Nwachukwu (2008) opined that the federal government should deploy more trained officers of the Civil Defence Corp to assist in enforcing compliance to sanitation management laws.

The researcher observed that markets surrounding are filled with heaps of refuse generated by the traders which are kept by the roadsides and corners within the market areas. Environmental sanitation in market is of great importance because it is where buying and selling activities take place and often times the immediate consumption of goods and services. Market Environment especially in developing world is polluted due to social misconduct of indiscriminate littering, improper domestic waste water discharge, poor sewage disposal, open defecation and unhygienic sanitary practices. Poor environmental sanitation cripples national development, people, households and communities lose time and money to illness, save and invest less and live shorter lives. Enforcement of environmental sanitation management law will make traders and individuals to be responsible for good environmental sanitation. The health of an individual is affected by the quality of place they live and work, air they breathe, the water they drink and the food they consume. The quality of the

environment is deteriorating very fast in most developing countries as failure to comply with the Environmental Sanitation Act. The United Nation World water development reports diarrhoea diseases are the most destructive of the faeco-oral diseases, causing around 1.6 to 2.5 million deaths annually, many of whom are children under the age of five who live in developing countries (Ibanga, 2015). As it is commonly quoted “*disease nordey kill Africa man*”. This goes a long way to show the poor level of compliance with sanitation management laws. In many instances, inadequate sanitation and open sewage systems severely contaminate water supplies causing disease and death.

When the environment is hygienic the rate at which disease spread is tamed and there is a high chance of wellness. The location of the markets within residential neighbourhoods put surrounding residents at greater risk. Open urination and defecation are widespread, which its resultant effect lead to contamination of the environment that contribute to environmental degradation (Mark, 2014). Hence, this research work will be examining the knowledge and compliance level with Edo State Sanitation Management Laws Among Traders in Benin Metropolis.

Statement of the Problem

Usman, Madaki and Auwal(2018) reported that the market place in Nigeria face various environmental sanitation challenges such as improper drainage system, lack of refuse disposal system, inadequate number of toilets and bathrooms to meet up with the populations of the traders, blockage of essential routes and exists that will be used for emergence purpose, lack of health facilities and absence of health personnel. Based on this, government of nations and international bodies like World Health Organisation (WHO), United Nation Emergency Fund (UNICEF) and other environmental related Non-governmental Organizations have emphasized the need for good sanitation, this led to the formulating of policies and laws by federal, state and local government to solve the problem of poor sanitation. One of such laws made, is the Edo State Sanitation Management laws (ESSML).

However, despite this legislation, markets in Benin Metropolis are very messy, an indication that people do not comply to these laws. Although several factors have been noted by Okojie (2000) and Mark (2018) to be responsible for poor compliance, but to the best of the researcher knowledge, there is no empirical study that has investigated the relationship between knowledge of and compliance with Edo State Sanitation Management Laws among traders in Edo State. It is against this background that the researcher investigated

the knowledge and compliance level of Edo State Sanitation Management Laws among traders in Benin metropolis.

Research Questions

The following research questions were raised to guide the Study;

1. What is the level of Knowledge of Edo State Sanitation Management laws among traders in Benin Metropolis?
2. What is the level of compliance with Edo State Sanitation Management laws among traders in Benin metropolis?
3. Is there any relationship between knowledge and compliance with Sanitation management laws among traders in Benin metropolis?
4. Is there difference in the knowledge of sanitation management laws of traders in Benin metropolis based on educational level?
5. Is there difference in the compliance of Edo State management sanitation laws among traders in Benin Metropolis based on educational level?

Research Hypotheses

The following hypotheses were tested at 0.05 level of significance

1. There is no significant relationship between Knowledge and Compliance with Edo State Sanitation Management laws among traders in Benin Metropolis.

2. There is no significant difference in the knowledge with sanitation management laws of traders in Benin metropolis based on educational level.
3. There is no significant difference in the compliance of Edo State management sanitation laws among traders in Benin Metropolis based on educational level

Purpose of the Study

The Purpose of the Study is to assess the knowledge and compliance level with Edo State Sanitation Management laws among traders in Benin Metropolis.

Significance of the Study

At the end of this study the finding will help in specific ways;

- The study explores appropriate strategies and recommendations to facilitate compliance to sanitation management laws.
- The study will serve as a reference point to the ministry of Health, ministry of Environment, Edo State Sanitation Management and other concerned bodies.
- It will reveal proactive strategies to increasing knowledge of sanitation and boost compliance to the stated guide's laws.

- The study will contribute to the existing body of knowledge with regard to knowledge and compliance level with Edo State sanitation management laws among trader in Benin Metropolis.
- The study will stimulate further research on the subject, in various related segment of the law as it relates to sanitation.

Scope/Delimitation of the Study

This Study focused on traders in Benin metropolis of Edo State, Nigeria. It will be delimited to four selected markets, to find out their knowledge and compliance to the Edo State Sanitation management laws.

Limitations of the Study

It is envisaged by the researcher that the traders may wrongly think that the survey is a Sanitation inspection with possible sanctions or fines as it is the custom. This will adversely affect their response rate as well as their honesty and candidness. To overcome this, effort will be made to orient the respondents about the purpose and the significance of the study as well as ensure them that their identity will be treated with utmost anonymity.

Operational Definition of Terms

Sanitation: This refers to the cleaning of the market environment by the traders and the provision of adequate facility by the Environmental sanitation officer to ensure that all the waste generated by the trader are well managed.

Trader: This refers to people whose activities involve carrying out economic activities so as to generate income for themselves and as well as contribute to the national economy development.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

Various literatures were reviewed in order to ensure proper understanding of trader knowledge of sanitation laws and to what extent they are complying. These literatures reviewed were done based on the following sub-heads.

- Theoretical Framework
- Concept of Sanitation & Management
- Sanitation in Nigeria
- Problem of Sanitation in Nigeria
- Sanitation management Laws
- Knowledge of Sanitation management Laws among Traders
- Compliance of Sanitation Management laws Among Traders
- Relationships Between knowledge and Compliance to Sanitation Management Laws.

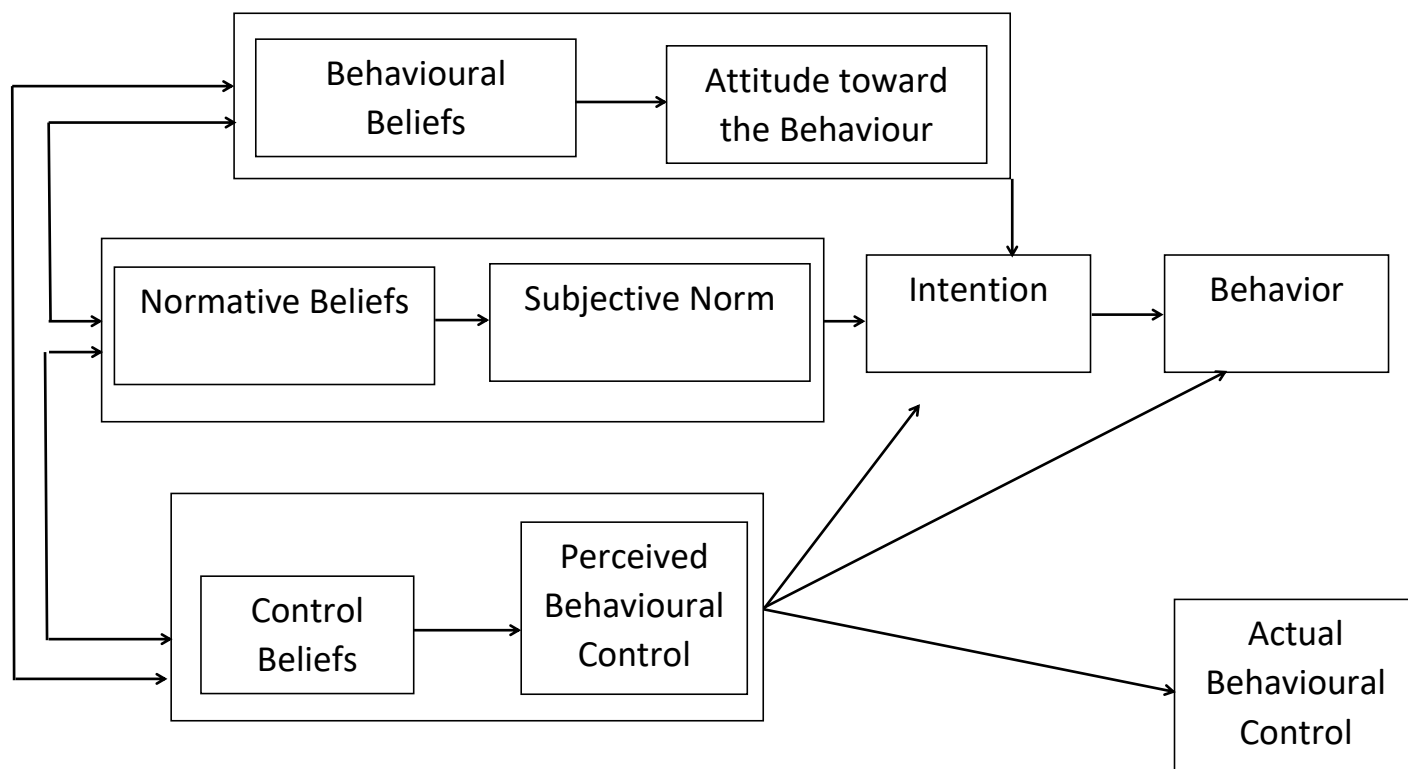
Theoretical Frame Work

The Theory of Planned Behaviour (TPB) as developed by Ajzen and Fishbein in (1980) give adequate understanding of human communication and human behaviour. It shows details of the factors that inputs result in any particular behaviour. The theory provides a framework to study attitudes as regards to behaviours. It also shows the important determinant of a person's

behaviour intent. This individual intention to perform behaviour is a combination of attitude towards performing the behaviour and subjective norm (Ajzen,1980).

Subjective Norms refers to a person's perception of what others around them believe that the individual should do,subjective norm is a type of peer pressure in which the person is determined by whether important referents approve or disapprove of the performance of a behaviour(Tlou 2009).A Person decision to participate in a behaviour or intending to participate is always been influenced strongly by the person around them.These persons may include members of same trade unions,community members,friends of even co-traders.Persons may also have inclination to either participate or refuse to participate in a behaviour based on their desire to comply with others (Ajzen &Fishbein,1980).

Individual traderbehavioural's belief, normative beliefs and control beliefs respectively show the attitude towards a given behaviour of the individual when participatory decision in an action is voluntary and under an individual's control.



Source: Ajzen (1991). The Theory of Planned Behaviour Organization Behaviour and Human Decision Processes 50, 179-211.

This theory(planned Behaviour (TPB) is applied to this study. Human beings are rational and take decision based on the information at their disposal at a particular time.The theory(TPB) assumes that people consider the implications of their actions before they decide to engage or not to engage in certain behaviours. These Traders would consider the implication of engaging or otherwise in good sanitation practices before engaging in it. Self-concept, environmental self-efficacy, and environmental attitude jointly contribute to responsible environmental behaviour (Ajzen 1996). It is assumed that background(sex,age and social economic status of traders) in Benin metropolis would influence their attitude,subjective norm and perceived behavioural

control thus determining their behavioural intention or actual behaviour that is their compliance with Edo State Sanitation Management Laws.

The Planned Behaviour Theory assumes that traders are quite rational and systematic usage of information shows the benefits of compliance with Edo state Sanitation Management laws and the demerit of non - compliance with sanitation laws. Traders should consider the Implications of carrying out what is expected of them in the Edo State Sanitation Management laws before they decide to comply with the laws or not.

The most important determinant of trader's behaviour is their intention. It shows a combination of attitude towards performing the behaviour and subjective norm. The level of knowledge of traders toward compliance with Edo state Sanitation Management Laws could either be adequate or inadequate. Their compliance rate commensurate to good health, reduction in mortality and morbidity, improved air quality in the positive affirmative. In this study negative outcome perceived by traders may include beliefs that good sanitation will not translate to good health, reduction in mortality and morbidity or prevention of infections and disease.

Applying this to the study, when a trader does have positive orientation of Edo Sanitation management laws, it is expected that the trader would want to meet the expectations of these relevant laws. And likewise if negative orientation, traders in Benin metropolis will not be motivated to comply with

Edo State Sanitation management laws. Perceived Behaviour control as seen in planned Behaviour theory is determined by control beliefs and perceived power. It indicates that a person's motivation is influenced by how difficult the behaviour is perceived to be as well as the perception of how successful the individual can or cannot perform the activity. If a trader holds strong control beliefs about the existence of factors that will facilitate behaviour, then the individual will have high perceived control over the behaviour (Ajzen & Fishbein, 1980). Thus, where trader perceive that compliance with Edo state sanitation Management laws is relatively easy and can be carried out successfully, then the trader will have high perceived control on sanitation behaviour. This perceived control will be manifested in actual good and positive practices of sanitation in the same vein. Where trader perceived that compliance with the Edo State Sanitation Management laws is difficult, there will be no motivation to comply and this would eventually translate to negative sanitary beliefs and hence poor compliance.

Overview of Sanitation and Management

There is no way we talk about sanitation without discussion on hygiene, the act of sanitation is a systematic approach of ensuring that the immediate environment humans live in is reasonably clean. That is, solid, liquid and garbage waste are disposed at the appropriate quarter to maintain a hygienic environment and a disease-free life. The World Health Organization WHO

(2005) copiously defined sanitation as the provision of facilities and services for the safe disposal of human urine and faeces and the maintenance of hygiene conditions through services such as garbage collection and wastewater disposal (Sanitation). Inadequate access to sanitation remains a significant problem globally, Nigeria not left out. According to Joint Monitoring Programme (WHO, UNICEF 2015), 2.4 billion people still do not have access to basic sanitation facilities, while 970 million people still practice open defecation. Poor Sanitation results in transmission of numerous communicable diseases such as cholera, dysentery, hepatitis A, typhoid and polio. These also have a large impact on children since they are quickly susceptible to diseases. Consequently, it is important that facilities that ensures people practice proper hygiene should be put in place. For example, toilets should be provided in designated areas as approved by health officers.

Sanitation is a major area to be taken seriously for human existence poor sanitation is a major cause of disease Worldwide and improving sanitation is known to have a serious health benefit on individuals and community (Philip 2010) Progress in sanitation and improved hygiene has resulted in good health, still many people have no adequate means of appropriate disposal of their waste poorly controlled waste also means daily exposure to an unpleasant environment (Philip 2010).

Sanitation is the protection and promotion of quality environment that is free of diseases. Sanitation is thus an aspect of our environment that may affect the health of the citizen (Uchegbu, 2015). Proper Sanitation will improve the standard of a city and thereby enhance the living conditions and the health security of the inhabitants, this will also improve the quality and aesthetic of the environment to a great extent thereby making the environment more habitable. (Owoeye & Adedeji, 2013). It could also be seen as the intervention to reduce people's exposure to diseases by providing a clean environment to live and which have been the precondition for deteriorating environment (Ezeamaka, 2015).

Sanitation in Nigeria

According to Mark Omorovie (2014) Delta State, Edo State and Perhaps Major cities you see unkempt gutters, streets filled with dirt, marketplaces covered with waste and discarded items etc. Despite the Sanitation days observed in some of these State in Nigeria, there are still many places in Nigeria that are polluted and dirty. On Sanitation day people dig up and pack dirt from the gutter by the road sides and heap them by the side of the gutters, thereby causing obstruction to free flow of traffic and causing environment nuisance. A walk through Nigerian Villages, cities, rural and urban areas leaves much to be desired. While there are clean villages and cities in Nigeria that are in an untidy State could triple that of the clean ones. Anijah & Eneji et al (2013) opined that

during the Colonial era, Sanitation bye-laws were strictly enforced and sanitary inspectors carried out regular and surprise inspection of households, buildings and premises to ensure compliance. The sanitation exercise in many cities in Nigeria is appalling the deplorable and dehumanizing conditions of physical environment call for sober reflections from all stakeholders. Poor sanitation situation are severe on Nigeria, adequate sanitation has not been strictly adhered to, its practices in the country are characterized by the lack of basic amenities and poor sanitation behaviour thus having serious consequences for the health of citizens Oluwaseun (2017). Our aesthetic value has been eroded by poor sanitation habits.

Joseph (2012) opined that several urban markets in Nigeria are poorly planned or not planned at all, that they usually spring up haphazardly and when situated close to a major road tend to obstruct the free flow of traffic and as such alter the city aesthetics. Opara and Onwuagba et al (2017) Sanitation is one of the powerful drivers of human development that affects quality of life, it improves the health and wealth of a country. The term sanitation is defined by different people and organizations as a means of cleaning human environment to prevent disease and promote health. United Nations Educational Scientific and cultural organization opined that Sanitation is act of maintaining clean, hygienic. Circumstances that help to avoid disease through services such as waste collection and disposal or recycling.

Problem of Sanitation in Nigeria

There are several factors which constitute the problem of Sanitation in Nigeria. MmonandMmon (2011) stated that sanitation and public health challenges in a rapidly growing city of the third world is the cause of domestic waste and diarrhoea incidence in greater Port Harcourt metropolis, Nigeria. Poor sanitation practices exhibited in the disposal of solid wastes, Wastewater and excreta, cleaning of drainage including personal, household and community hygiene significantly contribute to infant and child mortality and in other to achieve proper Sanitation practices, good Sanitation behaviour and availability of Facilities and services must work in unison. They also stressed that numerous studies have shown that the incidence of many diseases is reduced when people have access to and make regular use of adequate sanitary installations. Agencies such as World Health Organization UNICEF and the World Bank has placed so much emphasis on the need for adequate and proper Sanitation Practices because this will impact positively in the health and productivity of Nigerians.

WHO(2014) Define Sanitation generally as the provision of Facilities and services for the safe disposal of human urine and faeces and such services to include water, food wastes, air, vectors & Pest and noise. These aforementioned are still readily unavailable in most cities in Nigeria or are in inadequate supply. Opara et al(2017) observed that in most areas in Nigeria such as Owerri west L.G.A, that there is a gross environmental pollution or contamination due to

poor sewage and refuse disposal, lack of safe and adequate water supply, poor food hygiene practices and poor market setting. The Possible Causes of increase in flood severity around cities in Nigeria is due to poor Sanitation (Worlanyo, 2013). Another problem that result from poor sanitation in market places in Nigeria is unsanitary condition of the surrounding (Adejumo, 2014; Butu & Mshelia, 2014). In Nigeria Sanitation is an often mis-constructed subject matter. It's usually understood as an exercise rather than a practice (Daramola 2015). Nigeria health records revealed that about six hundred thousand cases of diarrhoea occur in children under the age of five yearly (Alabi, 2010) Nigeria is one of the countries in Sub-Sahara whose records on Sanitation facilities by the citizens remain very poor. Nigerian Cities in particular are fraught with inexorable rise of squatter settlements, overcrowding dwellings breakdown of waste disposal arrangements, air and water pollution and inadequate water and Sanitation services. Many problems of Mortality, Morbidity and poverty have been reported in the (Nwankwoala 2011).

Sanitation Management Laws

According to Dibia (2000) sanitation management laws are organized order that serve as a guide to measure the behaviour of actions of a group, institutions and organization, it could also be any relevant actions within a system to cope with and transform their environment taking deliberate measures which involve the commitment of the public to laws, regulations and other

mechanism concerning sanitation issues. The objectives of the National Environmental Sanitation Policy of 2005 is to coordinate the activities of all stakeholders involved in environmental sanitation and streamline their role; to strengthen the capacity of all institutions and agencies involved in environmental sanitation programmes to develop healthy human habitation and reduce the incidence of environmental sanitation related diseases; to achieve positive attitudinal changes in people, towards sound environmental sanitation to encourage research and development, define local standards and establish data base on environmental sanitation and to also identify local funding mechanism for environmental sanitation (National Environmental Sanitation policy NESP 2005). The National Environmental Sanitation Policy was promulgated in 2005 as integral part of the National Development Strategy to Stimulate, promote and strengthen all government regulations concerned with market premises, food security water supply etc. Sanitation related endemic diseases and illnesses school health services environmental education and drought control. The impact of good Sanitation on health, poverty reduction, economic and social development cannot be undermine, The year 2008 was declared as the international year of sanitation (IYS). The thrusts of the messages all attest to the fact that Sanitation is vital for human health, contributes to dignity and social development helps environment and generates economic benefit (Ojewale 2009). With Strict implementation of the law it will bring about a healthy living environment free of

pathogen,bacteria,Fungi etc.There have been legal,regulatory and institutional frameworks undertaken to protect the environment from abuse at global and local levels (Ladan,2012). Law No.5 of 2010 Edo State Sanitation management law this was promulgated to regulate and enforce good Sanitation in the State. The laws has made the promotion of sanitation progressively moving from the emphasis on centrally planned sanitation infrastructure to a demand led approaches that empowers people to change behaviour and improve their own sanitation.

Reasons for Inspection

It is relatively common to observe mountains of refuse at market spaces (Olowopovoku, 2017). Most often this occurs as a result of improper enforcement and follow ups of sanitation management law coupled with corruptions and shortage of manpower that is, environmental sanitation officers. The growing population of the traders in various markets in Benin metropolis is ever increasing on a daily basis, therefore the need for proactive inspections, reactive inspections and emergency need to be employed.

Proactive Inspections: They are carried out proactively as part of a planned programme in order to show, inspection and enforcement present by the authorities. This will prevent the non-compliance of the regulated traders and the neighbouring community.

Reactive Inspections: This usually occurs when an emergency occurs/happens which in most cases has already resulted to death or hospitalization. Sanitation whether in the urban or rural area protects and enhances the environment and by the extension the health of the citizens. Therefore, the need for environmental health officer to be on call at all time, to control the consistence indiscriminate dumping of solid waste (Usman., Madaki., & Auwal, 2018).

Emergency Planning Inspections: Environmental sanitation divisions within states have to be on the go on a daily basis, because wastes are generated every day. A regular clean-up of markets and its environs and set inspection officers on strategic location so as to stop the over heaped up of refuses in various corners of most markets. To achieve compliance, Edo State Environmental Sanitation Board have to implement legal tools that will comply with International Sanitation guidelines, and likewise provide a system for continual health education for traders. Whatever that is done with consistency tend to yield excellent outcome, this could also be accompanied with the of the private institutions and NGO's as much as possible to increase general understanding and create the right political situation and support (United Nations Environment Programmes, 2004).

Monitoring Level of Compliance

According to World Health Organization, Global Environment Monitoring System (GEMS) over 70% of populations live in area with heavy pollution of the environment with plastic refuse garbage, thereby affecting the

air quality. In recent times refuse dumps have brought about economy growth; improving the way of living in developed nations of the world. Factors associated with markets is the generation of wastes, which if not managed will increase public health risk. This reason prompt enforcement needs to be put in place to checkmate these various markets and its environs. Facilities whose waste becomes hazardous due to its value, for example animal feed, from the sale of animals as well as motor vehicle waste such as used motor oil and battery acid from vehicle maintenance. Vehicle graveyards and molds of used tires can furnish excellent site for mosquito breeding. Waste from general markets can create a variety of health problem. The need for strict monitoring by environmental health officer can never be put aside. Joseph (2012)In Nigeria, adequate environmental sanitation practices have not been ensured. This is due to the nonchalant attitude of environmental health officers for routine monitoring. (Daramohe&Oloweporoku,2016).

Sanitation Management Laws

When Sanitation laws are put into place without appropriate enforcement modalities to make it work,it create deficienciesin the suppose aims and objectives by which they were formulated. Improved sanitation reduces intestinal parasites, better waste management with good drainage systems that are routinelymaintained reduces flooding which causes injury and death and may led to food and water contamination. The availability of a properlymanaged waste disposal site reduces water and air pollution that

affects markets traders. Ibanga (2015) opined that the key to man's health lies largely on his environment, also stated that much of man's ill-health can be traced to adverse environmental factors such as water, soil and air pollution, poor housing conditions, presence of animal reservoir and insect vectors of diseases which pose threats to man's health. Proper management will bring in effectiveness of environmental sanitation laws thereby creating healthy environment.

Sanitation is concern with the proper management of waste water and solid wastes. Waste are generally refer to the removal of liquid sludge (also known as gray water from bathing laundry and food preparation on domestic, industrial and commercial uses.

Solid Waste: It refers to non-liquid waste emanating from domestic, commercial and industrial source.

Drainage: Deal with the removal of excess storm water and gray water or sullage. Drainage in the metropolis is grossly inadequate, making the area susceptible to flooding and stagnant water. The rainy season consequently records the highest frequency of environmental related diseases, such as malaria and diarrhea diseases.

Siberman (2000) spells out the following management laws;

- Achieve environmental results by ensuring compliance with regulatory requirement.
- Confirm socially desirable behavior

- Remove opportunities for non-compliance and create deterrence.
- Reverse on offence and punish the offender
- Provide equitable treatment to the regulated market.
- Ensure credibility of laws and government institutions.
- Realize long term economic advantages.

Based on the points stated above, it is pertinent that Edo State Ministry of Environment pay more attention to enforcing the sanitation management law through the staff deployed to various market within Benin metropolis and also sent along them civil service defence officer to apprehend violators.

Institutional Arrangement for Compliance

Daramola and Olowoporoko (2016) observed that Nigeria cities are characterized by rapid population growth which is not accompanied by a corresponding increase in the delivery of environmental sanitation facilities and service capable of enhancing environmental sanitation practices. There is need for our institutional bodies to start thinking outside the box, so as to proffer solution to the burden of market trade within the Benin metropolis Institutions should be set up to convert or recycle wastes into useful products for the benefit of man and the environment.

Institutional Arrangement for Compliance

Institutional arrangement is key as to ensuring compliance with any stated laws. Institution can adjust themselves to play more useful roles in supporting new approaches to sanitation. Mark (2014) suggest that Nigeria government

have the legal right to make environmental sanitation laws that obligates all citizens to participate in environmental sanitation to create the healthy environment for people to flourish. This 21st century has a lot of institutions where most of the citizens interact themselves with like the media and local campaign within our neighborhood. Institutional bodies like schools, churches, mosque and court etc. should come up with an easily planned out health education short courses to enlighten all categories of persons, traders inclusive. In general, those at higher institution level need to find ways to stimulate and support local supply and demand systems not to arrange or delivery of services themselves. For examples, how can they make use of local NGOS, the private sector grassroots organizations and communities themselves rather than relying upon large centralized and often ineffective departments.

Reasons for Poor Compliance Level

There has been little or no progress in compliance with sanitation management law immediately after the military regime of the Idiagbon, where there was law against indiscriminate dumping of refuses. Some of the basic reasons for lack of compliance are;

- Lack of political will: The political atmosphere of Nigeria today has been bastardize with corruption and all manner of behaviours exhibited by politicians. Instead of fighting for the well-being of the masses they end up pushing their pocket, what a paradox?

Proper sanitation is a prerequisite for the improvement in general health standards, productivity of labour force and good quality life. This ought to be the campaign manifesto of our so called leaders, instead, they campaign with promises that will never materialize, they don't have good political statement that will create an environment that will strengthen the compliance to sanitation management laws. Political will is thus both a cause and effect of other problems and a key to successful sanitation promotion. (Iyabo., Oluwaseun., Opeyemi., & Adedamola., 2010).

Law Prestigious and Recognition

When it comes to sanitation awareness a lot of people runs and shy away from it. In Nigeria it is estimated that over 10 million productive days would be gained access to sanitation and water rose to 100%. Let more effort be invested at these level of compliance and in no distant time our market environment will yield, productive and healthy lifestyle for the traders and the state as well. Low cost sanitation facilities and hygiene promotion campaign have never been prestigious, politicians and movie stars do not demonstrate good sanitation practices to their followers. (Danbaba., Nabegu., Binta & Mustapha, 2016).

Poor Policy at all Level

Agencies responsible for creating a supportive environment for sanitation for the general public have been ineffective as corruption has eaten deep into them. (Adiama., Henry., Alabede, Habeeb., Shehu., & Yusuf, 2018) they opined in their work that Nigeria Environmental Health Officer (EHOS) previously

known as sanitary officers or public health superintendent working in the local government has the responsibility, to inspect all premises especially residential and commercial areas.

Poor Institutional Framework

In recent times institutions have not taken the course of environmental sanitation manage laws with serious follow ups and majorities. (Igwe., Okezue., Nwaduru., Ezebuka.,&Ginikanwa., 2017) opined that the poor attitude towards environmental sanitation is the major cause of choked sewage system with solid waste as a consequence and also flooding has become a normal phenomenon accompanying rainfall in cities. This is the light that poor institutional framework has caused to us as a state, every street in Benin City of today is been flooded whenever it rains because of solid waste and refuse dumped most times by these traders by roadsides or deliberately thrown into the drainage. The state governments have not taken seriously the implementation of the Edo State sanitation management law even the non-governmental bodies have a lot to do. They should plan out consistence health education campaign to engineer environmental sanitation compliance.

Inadequate and Poorly Used Resources

Sanitation does not attract a fraction of the resources needed to do the job. (David.,Diana.,&Sheridan, 2015) opined that all urban dwellers need sage, quick, easy access to clean toilets, day and night, without a long walk, without a long wait in line, and without the need to plan ahead or to spend more than they can

easily afford. This is the reason why most market in the metropolis need to be more equipped with these facilities to boost up cleaning services. Increasing resources are required just to maintain the status quo.

Inappropriate Approaches

The Ministry of Environment has not given adequate measures to fight against the poor sanitation situation in the state and county at large. (Abejegah., Aigbiremolen., Chukwuma, & Nyemike, 2013) opined that the coming together of buyers and sellers in markets provide opportunities for the spread of communicable diseases with considerable potentials to reach epidemic dimensions.

Low Public Awareness

Environmental sanitation management law is to yet to get high public awareness. This is due to the value that is place on sanitation behavior and culture. Ahmed (2018) opined that the purpose of sanitation management laws is to provide regulations with legal framework for the adoption of sustainable and environment friendly practices on environmental sanitation and waste management to minimize pollution. It is of paramount concern that the government runs a frequent media advert to promulgate the important of good sanitation and also encourage it by providing the required facilities. Selling sanitation should be a prestigious thing, with high level of sanitation in any nation the GDP will definitely increase.

Women and Children

Women are potential agents of change in hygiene education, children are the most vulnerable victim but men usually make the decisions about whether to tackle the problem and how. Ahmed (2018) opined that Nigerians are not adequately educated about health to know that our environment is what we make of it, and that government expects us to play our own part in keeping it healthy even while we look up to them to govern for leadership. Many sanitation programmes ignore the disposal of children faeces, even though they are a major reservoir of disease pathogens.

Sanitation and Hygiene Promotion

Over the years emphasis has been laid on the need for adequate sanitation and good hygiene knowledge and practice are more important for protecting water supplies than any other factor. Usman., Madaki, and Auwal (2018) are of the view that the market places face challenges or environmental sanitation such as improper drainage system; lack of proper refuse disposal systems; inadequate number of toilets and bathrooms, blockage of essential routes and exits that will be used for emergency purpose, lack of health facilities and absence of high personnel to mention but a few are the common problems in the market. These are the major issue that is faced by traders as cited by Usman. The state government through the Ministry of Environmental Health needs to deploy more attention. The removal of faeces safely from the environment

eliminates the main source of water pollution. The proper use and maintenance of water facilities and the hygienic transport and storage of water protects the water supply chain from faecal contamination.

The Importance of Sanitation

Sanitation is the management and disposal of solid waste in and around communities and households. The most dangerous waste product and thus the focus of sanitation programs is human faeces. The spread of disease through food was common problems, which resulted in appreciable morbidity and occasional mortality. Several persons have pay ignorance to proper sanitation practices and like adhering to the sanitation management laws. (Usman et al., 2018)

Sanitation Promotion

The slow pace of improving sanitation coverage demonstrates that so far promotion efforts have been insufficient. In Nigeria more than 87% of the populations adopt wastage disposal methods that are generally unsatisfactory and not environment friendly such as dumping into the drainage along the road and street corners, nearby bushes, open hand and undeveloped plots burrow pits; waste collection and storage in basin, open bucket, basket, wheel barrow and transporting of waste is common among underage children or employment of lunatics in hands pushed, trucks or carts, wheel barrow and transporting of waste to dumpsite in open vehicles (tipper) by unqualified contractors and personnel.(Opera et al., 2017). New sanitation promotion initiatives have to be

implored and variety of techniques to drive compliance with the stated sanitation management laws. These should include improved research and motivation of targeted audiences. Using a widerange of communications methods and media and using social marketing on media in approaching sanitation to traders.

Promoting Behavioural Change

Education and communication are important components of a hygiene promotion programme. One's sanitation behavior in everyday life is an interrelated relationship between behavior and the surrounding environment sanitation. (Hidoyati& Lestari,2018). Knowing about the causes of disease may help,however, new hygiene practices may be too difficult or take too much time, especially for poor people. Just as the case of Ebola, then, that everyone was required to wash hand at every interval The aphorism “disease nor they kill Africa man ”, hence, there is need to promote behavioural change. Behavioural change is a gradual process that involves working closely with communication tools and finally engaging in the process or all stages using participatory process and special health education knowledge to boost awareness and compliance. The government needs to set up serious law enforcement body to drive the compliance to these environmental sanitation laws. In most cases people need serious measure in order r to be comply to stated laws.

Active awareness through the recruitment of trained young men and women to go into their communities to disseminate this information should be

considered. Poor environmental sanitation cripple national development. Traders, households and communities lose time and money to illness, workers produce less, save and invest less and live shorter life. Enforcement of environmental sanitation management law will make traders and individuals to be responsible for good environment sanitation. (Daramola.,Olowoporoku.,&Odunsi 2017).

Environmental Sanitation Management

Poor sanitation gives many infections, the ideal opportunity to spread plenty of waste and filth flies breed on food items etc. People do not seem to care about good environmental sanitation practices and constantly litter indiscriminately without considering the future effect of their poor sanitation practices on their health. Environmental sanitation management ensure that there are product allocations of limited resources tailored to the need of the people to ensure economic sustainability. Improved environmental sanitation management reduces environmental burdens increase sustainability of environmental resources and allow for a healthier, more secure future for the population. (Sadiq et al., 2018)

Environmental Sanitation Laws and Environment Institutions

Environmental sanitation management necessarily requires the assignment of responsibilities to specialized institutions involved in overseeing the use of national resources. Sanitation courts and other agencies charged with the responsibility of implementing/enforcing environmental sanitation laws,

were more interested in revenue generation for the government/personal pockets than persuading defaulters to change their habits and attitudes and show commitment to keeping their environment clean.(Anijah-Obi., Eneji., Ubom., Dunnamah, & William, 2013).

As such a number of institutions have been established to guide and coordinate all activities involved in the appropriation of natural resources without been greedy and complacent to work. Benneh (2007) argues that the successful management of environmental resources in any country depends to a large extent on the effectiveness of the institutional arrangement put in place by government for their management.

These institutional arrangements refer to the types of organizational units involved, such as ministries, agencies and committee, and the responsibilities and authorities of these units and the relationship between them. There have to be a good rapport between government agencies on sanitation and private bodies so as to enhance effectiveness and efficiency at all levels. Sound environmental law and governance are essential for protecting the natural environment and life and livelihoods that depends on it. During the colonial era, sanitation bye laws were strictly enforced and sanitary inspectors carried out regular and supervise inspection of markets, households, buildings and premises to ensure compliance.

Governance here refers to the assembly's use of a range of legal tools to r promote desired behavior. These tools could be traditional regulations,

environmental assessment, information disclosure requirements, market mechanisms, economic incentives on public policies to promote voluntary action on a scale that will enhance urban environmental sanitation and environmental protection.

Sanitation Enforcement and Compliance

Poor environmental sanitation in Nigeria is due to bad leadership and management. The military regime and the past administration have failed to formulate adequate environmental laws and regulations. Nigerian cities are characterized by rapid population growth which is not accompanied by a corresponding increase in the delivery of environmental sanitation facilities and services capable of enhancing environmental practices. (Daramola&Olowoporoku 2016).The past governments appear to have concentrated on problems of Niger Delta oil and gas pollution crisis. The hundreds of people dying every day due to neglect of waste management and lack of sanitation are ignored. People will continue bein whom they are, if not regulated to some guiding laws and regulations. The natural man wants to do everything at his leisure and convenient time, in most cases not considering the health implication. When we go round most of our markets as of today in Benin metropolis we find heaps of refuse piled up in various major access route in the market, spaces, along the major road. The only sanitation strategy in Nigeria that have survived in the last thirty (30) years was the implemented by the short live Buhari and Idiagbon military regime (1983-1985), when the monthly

national environmental sanitation exercise was tagged “war against indiscipline.” During this period the level of compliance with sanitation management law was high. For fear of been arrested by the force men or fined. Olalumoke et al (2018) opined that rapid population in Nigeria as well as in many other developing countries has resulted in an equally rapid increase in urbanization and these are generators of increased domestic and industrial waste.

Sanitation Strategies

The reality is that poor sanitation and inadequate excreta management in Nigeria is due to failure of the part of government to enforce in the public a better environmental culture which could promote public participation in environmental waste management. Peter (2008) reported that in order to avert the current global sanitation crisis. It is essential that sanitation be finally given the attention that it deserves. The earlier we started planning and implementing sanitation compliance measures the better for the society, as the rate of indiscriminate dumping of refuse keeps rising from our market place and in disposal on daily basis. Continuous public awareness, enlightenment and sanitation education of all stakeholders must become a priority knowledge and should be shared with the local community at extension. The promotion of adequate environment compliance and enforcement also include monthly environmental sanitation program need to be reinforced by the federal government. The local government should build and maintain minimum two standard toilet facilities in every market place, in strategic locations and in

larger workplace they should have more than two for proximity purpose by the trader.

Enforcement Strategies

Recruitment of large population of youth into Civil Defence Corps has been taking place almost every year. These officers should be given adequate training and commission to environmental sanitation monitoring, rather top government officials using them as errand boys and girls for their exuberant lifestyle. Oyebode (2018) reported that inspite of these environmental sanitation law in Nigeria by various sanitation problem in Nigeria are on the increase due to poor implementation and enforcement of the various laws.

Local governments could implement indirect strategies to stimulate environmental sanitation enforcement and compliance such as awarding seed capital to traders, whose stall and viscosity is well sanitized on a yearly bases. This incentive will make others who might not have been complying to gradually develop the habit. The poor environmental sanitation habit of many Nigerians is embedded in their lifestyles such as littering the streets, market environ with cans and plastic bags.

The federal government should penalize states for noncompliance with environmental sanitation standards by taking some percentage out from the state's allocation and paid it in to federal environmental health emergency fund. The state can also fine local government for not complying with environmental sanitation standards.

Non provision of toilets at market place can lead to indiscriminate defecation on the surface of the soil and the market. Omodu (2007) these acts make the spread of diseases such as tapeworm and infestation in cattle and pigs, enteric fever in man among others.

Environmental Sanitation Justice

In recent years, people of all persuasions have increasingly realized the connection between environmental quality and human quality of life. Unfortunately, disadvantaged people tend to be exposed to a greater share of pollution hazards and environmental degradation than the affluent people. Josephine (2014) opined that the current definitions of improved sanitation does not include anything regarding the actual use, cleanliness, maintenance or overall quality of the facility. The environmental justice movement promotes the fair and equitable treatment of all people with respect to environmental policy and practice, regardless of their income race or ethnicity. Withgott (2011) opined that environmental issues could also in viewed from the scientific standpoint and the social aspects.

Environmental Sanitation Policy

When a society concludes that a problem needs a solution, it may persuade it leader to resolve the problem through stated policies. Pore and Randive (2014) opined that the huge accumulation of heaps of garbage around market vicinity is as a result of inadequate dumping sites within the metropolis and the inability of the local government to collect the garbage generated for

appropriate dumping. Policy consists of a formal set of general plans and principles for addressing problems and guiding decision making.

National Environmental Sanitation Laws

For there to be harmonization and cooperate behavior toward environmental sanitation, there have to be a national law regulating it. Akpofure (2009) defined laws as body of rules regulating the conduct or behavioural pattern of person towards orders within a given community, local government, state or federation.

The Role of Local Government

The 1999 constitution stated that municipal waste disposal and environmental sanitation are the responsibilities of local governments who are to implement bylaws. Chukwuma et al (2017) opined that environmental sanitation is a set of actions or a fundamental process of collecting and safely disposing all kinds of waste within the environment with the intention of protecting and promoting the individual health and quality of life of communities.

Sanitary inspectors are to monitor the compliance level of the populace. The local government department is equally created at this level, it is attached to the office of the medical officer of health in each local government. A public health specialist is employed to supervise at the local government level.

The Role of State Government

State government in Nigeria have to take steps at their various state levels to protect the environment. Lukkumanul (2019) state that the need to improve and explain social infrastructures such as water supply, waste management and health services is obvious in order to handle the needs of any growing states just in the recent pass months market ablaze and no prompt response. From the five service Department of Edo State hold to the fact that there was no water. State government are given power to enact environmental pollution edicts, as prescribed from the federal laws listed in the Federal Ministry of Environment. The market Should be designed and constructed so that adequate light and ventilation is provided, while maintaining adequate security (WHO, 2006).

Knowledge of Sanitation Management Laws among Traders

Still in the 21st century where Education is been pursued by various past and present administration to make illiteracy a thing of the past, the imbalance still remains. Owoeye&Adedeji (2012) observed that the foremost thing that needed urgent attention is the area of public enlightenment environmental and health Education. In accordance with this, it has previously been asserted that without grassroots environmental education and enlightenment, enforcement of environmental sanitation and waste disposal laws are bound to have a very little prospect of success(Ajala 2011).

Provision of laws in relation to Sanitation, they are carefully spelt out from Edo State sanitation Management laws as follows;

- a. Keep Clean the side walk gutter and (450cm from the side walk into street) along the building frontage, sides and back at all times.
- b. Bind all old new papers, loose paper, rubbish and rags before putting them out for collection
- c. Put refuse into securely tied plastic bags or leak-proof waste-binwith tight fitting lids.
- d. Keep refuse bins with in their premises until the time of collection.
- e. Not dump yard sweepings, hedge cutting, grass leaves earth stones bricks or business waste with household refuse.
- f. Not use bins which way be leaking or permitting littering to escape or which might injure people handling them.
1. .Not litter, sweep out, or throw ashes, refuse paper nylon and rubbish into any street, public place or vacant plot.
- g. Provide clean and well maintained drains at the front of his tenement or building, provide suitable holding tank for liquid waste or sewage liquid and ensure regular evacuation of and proper disposal of same.
- h. Ensure prompt payment of refuse evacuation bill
- i. Present evidence of payment upon request by the authority. Cited from Law No.5 of 2010 Edo State Sanitation and pollution Management Law.

Compliance with Sanitation Management Laws among Traders

Literature has shown that the level of compliance with the Edo State Sanitation management law is still at the lowest, Okoh(2013) Observe that poor waste collection, Storage and disposal is still very insufficient, that there is need for local government to engage their Health Officers in thorough field work to ensure compliance and also provide adequate sanitary material for the traders. In his findings he opined that the reason why a large percentage of the trader do not still comply to the management laws despite been aware of the hazard that it result, he said it could be the following reasons lack of facilities for waste disposal and timely collection, lack of will power and lack of motivation and incentives to adequately dispose of the generated waste poorly and engage healthy routine of sanitation exercise (Nigerian National Planning commission, 2004).

Opara (2017) opined that Nigeria is currently part of the countries whose sanitation coverage rates are increasing and that boosting sanitation in public places could lead to the attainment of Millennium development goals MDGS in term of Health Education and Economic development. Usman (2018) opined that for effective compliance, the government Sanitation officers should give Health Education on a more frequent bases and proactive measure should be used to check mate the trader, that provision of reasonable time to promote and maintain public health and order towards sanitation so as to facilitate effective

and sustainable Sanitation practices among traders. Oluwole et al (2017) opined that the government should enforce sanitation to deviants among the traders who fail to comply with the spelt out laws.

Relationship between Knowledge and Compliance with Sanitation Management Laws

Ahmed (2018) opined that in Nigeria Sanitation is an often misconstrued subject matter. Most of these traders due to their level of exposure that is Education would not want to change their old mentality as regard to good sanitation, regular intimating them with these laws in the most preferred language or communicable medium, good help to debunk that which is wrong .

Hidayati and Lestari (2018) opined that knowledge is influenced by factors such as education, occupation, age, interest, experience, culture etc. It is also observed that lack of knowledge about good sanitation could make the trader to commit sanitation nuisance. The National environmental policy(2005) best sums up the factors affecting compliance with sanitation in Nigeria; are many constraints and problems, ranging from socio-cultural, economic and management problem hinder effective environmental sanitation which include;

- Duplication of responsibility by many stakeholders in the
- Poor perception of environmental sanitation as an essential service and major determinant of health and good standard of living.

- Lack of clear policy assigning responsibilities for environmental sanitation within the levels of government.
- Inappropriate institutional framework
- Low literacy level
- Weak and poor enforced public Health laws, State laws and bye-law
- Lack of adequate professional manpower especially at the state and local government area levels.
- Inadequate research activities
- Inadequate allocation of resources for environmental sanitation education and awareness.
- Inadequate allocation of resources for environmental sanitation services.
- Inadequate sensitization and mobilization of private sector in the delivery of environmental sanitation services.
- Inadequate participation of stakeholders in project planning and implementation.
- Inadequate sensitization and mobilization of communities in planning, designing and decision making on environmental sanitation matters.

Abogun (2014) in the same vein identified some factors responsible for non-compliance with environmental sanitation in Nigeria. He stated that although Local government councils have been saddled with the responsibility of ensuring access to sanitation facilities, lack of autonomy, budget limitations

and poor capacity have hampered their ability to carry out their duties effectively, this in turn has negated their ability to enforce compliance with sanitation laws by the populace. He says that communities are even aware of their need of sanitation, however finances and poverty are a major concern.

Summary of Related Literature

Literature has viewed sanitation from different dimension for the purpose of this study on Knowledge and compliance with Edo State Sanitation Management Laws Among Traders in Benin Metropolis the forth goings where cited and discussed in this work; The sustainable Development goals Framework defines basic sanitation Service as an improved facility that is not shared, limited service as an improved facility shared with traders and Safely managed Sanitation services as a basic Facility that safely disposes of human waste United Nations,(2017) P.30. The World Health Organization (WHO) copiously defines Sanitation as the provision of Facilities and services for the safe disposal of human urine and faeces and the maintenance of hygienic conditions, through services such as garbage collection and wastewater disposal (Sanitation). Inadequate access to sanitation remains a significant problem globally, Nigeria not left out, according to Joint Monitoring Programme 2.4 billion people still do not have access to basic Sanitation Facilities, while 970 million people still practice open defecation.

The following variable of the study were reviewed, sanitation & management, Sanitation in Nigeria, problem of sanitation in Nigeria, knowledge of sanitation management laws among traders, compliance with sanitation management laws among traders and the relationships between knowledge and compliance with sanitation management laws.

The theoretical framework for the study is the theory of planned behaviour, which shows that behaviour of traders toward sanitation is proportional to their willingness to comply with the Edo State Sanitation management laws and the extent of their knowledge is directly proportional to the Health Education awareness they have about sanitation.

CHAPTER THREE

METHOD OF THE STUDY

This Chapter looks at the various methods and procedure below to buttress the following sub-headings.

- Research Design
- Population of the Study
- Sample and Sampling Technique
- Research Instrument
- Validity of the instrument
- Reliability of Instrument
- Administration of Instrument
- Method of Data Analysis.

Research Design

The descriptive survey research design was used to carry out this study. Descriptive design allows for collection of data without manipulation from an illustrative sample based on which significant inference can be tied to the population from which it was gotten (Owie, 2013). It is considered appropriate for ascertaining the knowledge and compliance level with Edo State Sanitation Management laws.

Population of the Study

The population of this study is 17,417 shop owners in markets in Benin Metropolis. This consists of traders in Egor Local Government Area comprises of 2,199 shops, Oredo Local Government Area comprises of 11,392 shops and IkpobaOkha Local Government Area is made up of 3,826 shops (Field survey list from 3 Local Government Revenue Department as at March, 2020).

Table 3.1: Field survey list from 3 Local Government Revenue Department as at August, 2020

EGOR LOCAL GOVERNMENT AREA		
S/N	LIST OF MARKET	NUMBER OF SHOPS
1.	USELU	532
2.	EGOR	365
3.	EVBOTUBU	353
4.	UWELU	370
5.	OGIDA	459
6.	USEH	120
	TOTAL	2199

OREDO LOCAL GOVERNMENT AREA		
S/N	LIST OF MARKETS	NUMBER OF SHOPS
1.	OBA MARKET	2,227
2.	OLIHA	676
3.	EKIOSA	2,370
4.	OGISO	1,762
5.	AGBADO	879

6.	YANGA	160
7.	UWA	307
8.	OGBA	464
9.	UGBOR	310
10.	NEW BENIN	2,237
TOTAL		11,392

IKPOBA OKHA LOCAL GOVERNMENT

S/N	LIST OF MARKETS	NUMBER OF SHOPS
1.	OREGBENI	376
2.	ADUWAWA	557
3.	OKA	1,672
4.	ABIKO	150
5.	EKAE	100
6.	SATANA	756
7.	EGBA	215
TOTAL		3,826

Sample and Sampling Technique

The sample size for this study was 568 respondents. This was selected using purposive and simple random sampling of balloting by replacement. Purposive sampling was used to select two markets from the extremes in the list given to the researcher (the first and the last markets). Then simple random sampling was used to select 10% of the shops in each of the markets picked. However, any shop selected that does not have a generator was dropped and the next number picked from the list will be used.

Table 3.2: List of sampled traders

LOCAL GOVERNMENT	NAME MARKET	OF	NUMBER OF SHOPS	10% SHOPS
EGOR	USELU		532	53
	USEH		120	12
OREDO	OBA MARKET		2227	222
	NEW BENIN		2237	223
IKPOBA OKHA	OREGBENI		376	37
	EGBA		215	21
	TOTAL		5,707	568

Research Instrument

A self-constructed questionnaire was used for the study. The questionnaire titled: Knowledge and Compliance level with Edo State Sanitation Management Laws among traders in Benin Metropolis. It consists of various sections. Section A part 1 highlights responses on demographic variables, while part 2 will assess the knowledge base of Edo State sanitation management laws while Section B was on compliance level towards Edo State Sanitation Management Laws respectively. Section A Part 2 is composed of multiple choice questions on knowledge of Edo State Sanitation Management Laws. Section B which is on compliance will be a Likert scale which were coded as Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD). Then scored as SA=4, A=3, D=2, SD=1. The reverse was applied for negatively worded questions.

Validity of the Instrument

The instrument was content and face validated by the Supervisor and two other experts from the Department of Health, Safety and Environmental Education, Faculty of Education, University of Benin, Benin City. It was further scrutinized by the departmental post-graduate board of study. Their critiquing and suggestions formed the final draft of the instrument.

Reliability of the Instrument

To ascertain the reliability of the instrument, test re-test reliability method was used. This was done by an initial administration of the instrument to twenty (20) respondents drawn from the sample population. After two weeks, the same instrument was administered again to the same respondents. The scores from the first and second administration were subjected to Pearson's Product Moment Correlation Coefficient. A Pearson correlation value of 0.78 was derived. Thus, the instrument was reliable.

Administration of the Instrument

The instrument was administered by the researcher with the aid of four trained research assistants.

Method of Data Analysis

Data were analysed using basic descriptive statistics of frequency counts, percentages and stated hypotheses were tested using Pearson product moment correlation coefficient and one-way ANOVA at 0.05 alpha level of significant.

CHAPTER FOUR

PRESENTATION OF RESULT AND DISCUSSION OF FINDINGS

This chapter presents the analysis of data collected for this study. The presentation and analysis was based on the separate consideration and statistical testing of each research question formulated. The following are the results which are shown in tabular forms and discussed.

Research question one: What is the level of Knowledge of Edo State Sanitation Management laws among traders in Benin Metropolis?

Table 4.1: Level of Knowledge of Edo State Sanitation Management laws among traders in Benin Metropolis

Knowledge level	Frequency	Percentage
High	138	24.3
Moderate	335	59.0
Low	95	16.7

- *High: score of 10- 13*
- *Moderate: score of 7-9*
- *Low: score of 0-6*

The table above reveals the level of Knowledge of Edo State Sanitation Management laws among traders in Benin Metropolis. It can be seen from the table that 59.0% of the respondent have moderate (average) knowledge towards sanitation management law, 24.3% have high knowledge and 16.7% have low

knowledge. Thus, majority of the respondent have moderate knowledge towards Edo State Sanitation Management laws.

Research question two: What is the compliance with Edo State Sanitation Management laws among trader in Benin metropolis?

Table 4.2: Compliance with Edo State Sanitation Management laws among trader in Benin metropolis

S/N	Items	Always	Sometime	Never
1	I dump my refuse in gutter whenever am not watched or monitored	422(74.3%)	90(15.8%)	56(9.9%)
2	I have never dropped my refuse in gutter	488(85.9%)	27(4.8%)	53(9.3%)
3	Bind all old new papers, loose paper, rubbish and rags before putting them out for collection	80(14.1%)	271(47.7%)	217(38.2%)
4	I take interest in picking garbage, sometimes wastes around my premises	420(73.9%)	59(10.4%)	89(15.7%)
5	Put refuse into securely tied plastic bags or leak-proof dustin with tight fitting lids	136(23.9%)	405(71.3%)	27(4.8%)
6	I engage in open defecation	108(19.0%)	445(78.3%)	15(2.6%)
7	I urinate in corners and	310(54.6%)	67(11.8%)	191(33.6%)

	gutters within the market premises			
8	Litter, sweep out, or throw ashes, refuse paper nylon and rubbish into any street, public place or vacant plot	134(23.6%)	270(47.5%)	164(28.9%)
9	I have a broom in my shop	429(75.5%)	85(15.0%)	54(9.5%)
10	I sweep my surrounding anytime is dirty	294(51.8%)	191(33.6%)	83(14.6%)
11	I have a dust pan in my shop as required by the environment sanitation law	191(33.6)	67(11.8%)	310(54.6%)

The table above reveals the compliance with Edo State Sanitation Management laws among trader in Benin metropolis. It can be seen that 74.3%, 85.9%, 73.9%, 54.6%, 75.5%, 51.8% and 43.0% of the respondents indicated that they always dump refuse in gutter whenever am not watched or monitored; dropped refuse in open space when no waste bin; take interest in picking garbage, sometimes wastes around my premises; urinate in corners and gutters within the market premises; have a broom in my shop; sweep my surrounding when dirty; have a dust pan in my shop as required by the environment sanitation law respectively. However, 47.7%, 71.3%, 47.5% of the respondents indicated that they sometimes bind all old new papers, loose paper, rubbish and rags before putting them out for collection; put refuse into securely tied plastic bags or leak-proof dustin with

tight fitting lids; litter, sweep out, or throw ashes, refuse paper nylon and rubbish into any street, public place or vacant plot respectively.

Hypothesis one: There is no significant relationship between knowledge and compliance with Sanitation management laws among traders in Benin metropolis,

Table 4.3: Pearson correlation statistics showing relationship between knowledge and compliance with Sanitation management laws among traders in Benin metropolis

Variables	Mean	Std. dev.	r	Sig.	Remark
Knowledge	7.31	1.65	-0.98	0.019	Ho rejected
Compliance	33.55	1.82			

The table above reveals the relationship between knowledge and compliance with Sanitation management laws among traders in Benin metropolis. It can be seen that knowledge of the respondents on sanitation management laws had a mean of 7.31 while their compliance had a mean of 33.55. The r-value is -0.98 and level of significance is 0.019 which is less than the set alpha level of 0.05. Thus the null hypothesis which there is no significant relationship between knowledge and compliance with Sanitation management laws among traders in Benin metropolis is rejected. From the table, it can be

seen that there is a significant weak, negative relationship between knowledge and compliance with Sanitation management laws among traders in Benin metropolis.

Hypothesis two: There is no significant difference in the knowledge with sanitation management laws of traders in Benin metropolis based on educational level.

Table 4.4: One- way ANOVA showing difference in the knowledge with sanitation management laws of traders in Benin metropolis based on educational level

	Sum of squares	Df	Mean square	F-value	Sig.
Between groups	15.14	3	5.05	1.85	0.13
Within groups	1537.44	564	2.73		
Total	1552.59	567			

The table above reveals the one- way ANOVA showing difference in the knowledge with sanitation management laws of traders in Benin metropolis based on educational level. It can be seen that the degree of freedom is (3, 564), f-value is 1.85 and level of significance is 0.13 which is greater than the set alpha level of 0.05. This shows that null hypothesis which states that there is no significant difference in the knowledge with sanitation management laws of traders in Benin metropolis based on educational level is accepted. This shows that educational background does not influence the knowledge with sanitation management laws of traders in Benin metropolis.

Hypothesis three: There is no significant difference in the compliance of Edo State management sanitation laws among traders in Benin Metropolis based on educational level

Table 4.5: One way ANOVA showing difference in the compliance of Edo State management sanitation laws among traders in Benin Metropolis based on educational level

	Sum of squares	Df	Mean square	F-value	Sig.
Between groups	227.06	3	75.69	25.75	0.00
Within groups	1657.56	564	2.94		
Total	1884	567			

The table above reveals the one- way ANOVA showing difference in the compliance of sanitation management laws of traders in Benin metropolis based on educational level. It can be seen that the degree of freedom is (3, 564), f-value is 25.75 and level of significance is 0.00 which is less than the set alpha level of 0.05. This shows that null hypothesis which states that there is no significant difference in the compliance of sanitation management laws of traders in Benin metropolis based on educational level is rejected. This shows that educational background influence the compliance of sanitation management laws of traders in Benin metropolis.

Table 4.5: LSD POST-HOC statistics

Dependent Variable	(I) educational level	(J) educational level	Mean Difference (I-J)	Std. Error	Sig.
Compliance	no formal edu	Primary	-1.33252*	.16972	.000
		Secondary	-1.44062*	.21304	.000
		Tertiary	-.21771	.35605	.541
	Primary	no formal edu	1.33252*	.16972	.000
		Secondary	-.10810	.19584	.581
		Tertiary	1.11481*	.34603	.001
	Secondary	no formal edu	1.44062*	.21304	.000
		Primary	.10810	.19584	.581
		Tertiary	1.22291*	.36921	.001
	Tertiary	no formal edu	.21771	.35605	.541
		Primary	-1.11481*	.34603	.001
		Secondary	-1.22291*	.36921	.001

The LSD post-hoc was done to analyze where the difference lies across the respondents educational level on their compliance of sanitation management laws. It can be seen that the difference lies between non formal education and primary (mean difference of -1.33); non formal education and secondary school (mean difference of -1.44). There was significant difference between primary and tertiary educational level (mean difference of 1.11) and between secondary and tertiary educational level (mean difference of 1.22).

Discussion of Findings

The study was done to assess the knowledge and compliance level with Edo State Sanitation Management laws among traders in Benin Metropolis. It can be seen that majority of the respondent have moderate knowledge towards Edo State Sanitation Management laws. Thus, Owoeye and Adedeji (2012)

observed that the foremost thing that needed urgent attention is the area of public enlightenment environmental and health Education. In accordance with this, it has previously been asserted that without grassroots environmental education and enlightenment, enforcement of environmental sanitation and waste disposal laws are bound to have a very little prospect of success (Ajala 2011). Oluwole et al (2017) opined that the government should enforce sanitation to deviants among the traders who fail to comply with the spelt out laws.

It was also observed that it can be seen that majority of the respondents indicated that they always dump refuse in gutter whenever am not watched or monitored; dropped refuse in open space when no waste bin; take interest in picking garbage, sometimes wastes around my premises; urinate in corners and gutters within the market premises; have a broom in my shop; sweep my surrounding when dirty; have a dust pan in my shop as required by the environment sanitation law respectively. Also majority of the respondents indicated that they sometimes bind all old newspapers, loose paper, rubbish and rags before putting them out for collection; put refuse into securely tied plastic bags or leak-proof dustin with tight fitting lids; litter, sweep out, or throw ashes, refuse paper nylon and rubbish into any street, public place or vacant plot.

The study also showed that there is a significant weak, negative relationship between knowledge and compliance with Sanitation management laws among traders in Benin metropolis. This is supported by Nigerian National Planning commission (2004) when they stated that the reason why a large percentage of the trader do not still comply to the management laws despite been aware of the hazard that it result, he said it could be the following reasons lack of facilities for waste disposal and timely collection, lack of will power and lack of motivation and incentives to adequately dispose of the generated waste poorly and engage healthy routine of sanitation exercise.

It was observed that there is no significant difference in the knowledge with sanitation management laws of traders in Benin metropolis based on educational level. This shows that educational background does not influence the knowledge with sanitation management laws of traders in Benin metropolis. This is contrary to Hidayati and Lestari (2018) who opined that knowledge is influenced by factors such as education, occupation, age, interest, experience, culture and so on. It is also observed that lack of knowledge about good sanitation could make the trader to commit sanitation nuisance. However, it was seen that educational background influence the compliance of sanitation management laws of traders in Benin metropolis. Thus Abogun (2014) in the same vein identified some factors responsible for non-compliance with environmental sanitation in Nigeria. He stated that although Local government

councils have been saddled with the responsibility of ensuring access to sanitation facilities, lack of autonomy, budget limitations and poor capacity have hampered their ability to carry out their duties effectively, this in turn has negated their ability to enforce compliance with sanitation laws by the populace. He opined that communities are aware of their need of sanitation, however finances and poverty are a major concern.

CHAPTER FIVE

SUMMARY CONCLUSION AND RECOMMENDATIONS

Summary

The researcher investigated the knowledge and compliance level of Edo State Sanitation Management Laws among traders in Benin metropolis. In the study, five research questions were raised and three were hypothesized. Various literatures were reviewed related to the study.

The descriptive survey research design was used to carry out this study. The population of this study was 17,417 shop owners in markets in Benin Metropolis. This consists of traders in Egor Local Government Area comprises of 2,199 shops, Oredo Local Government Area comprises of 11,392 shops and IkpobaOkha Local Government Area is made up of 3,826 shops. The sample size for this study was 568 respondents. A self-constructed questionnaire was used for the study. The instrument was validated. To ascertain the reliability of the instrument, test re-test reliability method was used. A pearson correlation coefficient score of 0.78 was observed. Thus, the instrument is reliable. Data collected were analyzed using descriptive statistics of frequency count and percentages and hypotheses were tested using Pearson's correlation and one way ANOVA.

Findings

The following findings were discovered in the study:

1. Majority of the respondent have moderate knowledge of Edo State Sanitation Management laws.
2. Majority of the respondents indicated that they always dump refuse in gutter whenever am not watched or monitored; dropped refuse in open space when no waste bin; take interest in picking garbage, sometimes wastes around my premises; urinate in corners and gutters within the market premises; have a broom in my shop; sweep my surrounding when dirty; have a dust pan in my shop as required by the environment sanitation laws.
3. There is a significant weak, negative relationship between knowledge and compliance with Sanitation management laws among traders in Benin metropolis.
4. There is no significant difference in the knowledge with sanitation management laws of traders in Benin metropolis based on educational level
5. Educational background influence the compliance of sanitation management laws of traders in Benin metropolis.

Conclusion

The study concludes that, sanitation regulations and law enforcement plays crucial role in ensuring good environmental sanitation condition in market place. The study revealed that majority of the traders have average knowledge of environmental management laws and they rarely adhere to the Edo environmental sanitation laws in the market place. In terms of the relationship between the respondents knowledge and their compliance to the sanitation management laws, it was observed that there is a significant weak, negative relationship between knowledge and compliance with Sanitation management laws among traders in Benin metropolis and educational background influence the compliance of sanitation management laws of traders in Benin metropolis.

Recommendations

Based on the findings of the study, the following are recommended by the researcher:

1. There is need to proper sensitization of the traders in order to improve their knowledge towards the environment sanitation laws
2. There is need for vigorous environmental sanitation education and enforcement of the sanitation byelaws to make the populace responsive to the city environment.
3. There is the need for institutional capacity building and proper coordination between institutions and departments within the Edo state

waste management board responsible for ensuring good environmental sanitation.

4. Government should provide facilities such as waste bins in markets as it would go a long way to help the authorities achieve good environmental sanitation.
5. Pro-environmental sanitation practices depend on effective environmental literacy. Thus, campaign to raise public awareness about environmental sanitation is essential in achieving success in environmental issues. This mind-set reorientation can be achieved through recruitment of trained young men and women who would engage residents one on one especially, on the need to be environmentally concerned.

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APPENDICES

APPENDIX I

Department of Health Safety and Environmental Education

Faculty of Education

University of Benin,

Benin City.

QUESTIONNAIRE ON KNOWLEDGE AND COMPLIANCE LEVEL WITH EDO STATE SANITATION MANAGEMENT LAWS AMONG TRADER IN BENIN METROPOLIS

Dear Respondents, this question is aimed at eliciting information on Knowledge & compliance level with Edo State Sanitation Management Laws among Traders in Benin Metropolis.

The information's that will be gathered will enable ministry of Environment in Edo State to plan interventions toward sanitation problems within the state. Data's that will be obtained in the cause of this research will strictly be for the purpose of this research, will be kept confidentially. Please note that the research is free of risk and participation is entirely voluntary.

Thank you.

Ehinomen Augustine Akhator

SECTION A

SOCIO-DEMOGRAPHIC INFORMATION OF RESPONDENTS

Instruction: Please fill in the slots or mark () in boxes where available.

1. Sex: Male () Female ()
2. Education level: No formal education () Primary () Secondary () Tertiary ()
3. What type of Stall do you operate? Lock-up stall () Open Stall ()
Squatter ()
4. How long have you been in this Market? Below 2 years() 2-5 years ()
6- 9years () 10years & above ()

PART III: LEVEL OF KNOWLEDGE ON ENVIRONMENTAL SANITATION LAWS

5. According to environment sanitation law in Edo State, how often are you supposed to sweep your surrounding? (A) Daily (B) yearly (C) Once in 2 years
6. What is the dimension to keep in order to sustain a clean sidewalk ,gutter and area?(A) 450cm (B) 560cm (C)650
7. According to environment sanitation law in Edo State, how often are you supposed to pay for evacuation of refusebill? (A) Monthly (B) once in Ten years (C) I don't pay
8. Dumping refuse into drainages is (A) Illegal (B) lawful (C) the sanitation law support it
9. Using dustbin that are bad could injure_____ (A) waste collector (B) Passerby (C) Pilot
- 10.What is Evacuation Bill? (A) money pay to remove my refuse (B) Additional capital (C) social meeting contribution
- 11.When I deviate from the sanitation law am ask to pay_____ (A)Walk away free (B) been awarded () Ask to Pay a fine or arrested
- 12.According to the stated law on sanitation, how are you supposed to

dump your refuse?(A) A firmly tied plastic bag (B) scattered on the floor
(C) thrown them to walk ways

13. Which among these following are representation of sanitation management laws?(A) it provides no order(B) it provides healthy environment (C)It creates conflict among traders.

SECTION B: Instruction tick() the appropriate to the option of Always(A), Sometimes(S) and Never (N)

Compliance with Edo State Sanitation Management Laws

S/N	Items	Always	Sometime	Never
1	I dump my refuse in gutter whenever am not watched or monitored			
2	I have never dropped my refuse in gutter			
3	Bind all old newspapers, loose paper, rubbish and rags before putting them out for collection			
4	I take interest in picking garbage, sometimes wastes around my premises			
5	Put refuse into securely tied plastic bags or leak-proof dustbin with tight fitting lids			
6	I engage in open defecation			
7	I urinate in corners and gutters within the market premises			
8	Litter, sweep out, or throw ashes, refuse paper nylon and rubbish into any street, public place or vacant plot			
9	I have a broom in my shop			
10	I sweep my surrounding anytime it is dirty			
11	I have a dust pan in my shop as required by the environment sanitation law			