

Assessment of Environmental Health and Safety of Urban Informal Sector Activities in Port Harcourt Metropolis Rivers State, Nigeria

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Abstract— The research focused on the assessment of health and safety of some selected urban informal sectors activities in Port Harcourt Metropolis in Rivers State. Small and micro operators from cassava mill, poultry farm, saloon, and restaurant and kiosk shop were the target population. Taro Yamane formula was applied to get the sample size of 400 respondents. The research deployed the cross sectional and descriptive method of data analysis. Questionnaire was structured as open-ended and concise questions using the established parameters to elicit accurate responses from operators. Study adopted probability and non-probability sampling techniques. Results revealed that there was no documented number of urban informal sectors operators in the study area, rather from the pilot study in the three designated locations were listed the different categories of urban informal sector operators to about 3,680 (three thousand six hundred and eighty small and medium urban informal sector operators. About 196 respondents (50.5%) attested that there was no regulation (policy guide) that regulates their operations. More so, about 105 respondents which represent 27.0% attested that the method of reaching out to the urban informal sector operators was through use of smart phones. Recommendations of the study suggests an improved culture of health and safety of the people at the local communities to be top-most importance by the government bearing in mind the enormous contributions of the sector to the state and national economy. The basic safety and health precautionary methods should be made enforceable by the agencies in their activities. This would eventually lead to the decrease of the global outbreak of rising health and safety challenges from the sector.

Keywords— Assessment, Environmental, Health /Safety, Urban, Informal Sector, Port Harcourt.

I. INTRODUCTION

As population keeps increasing with its rising need to quench poverty and hunger as enshrined in sustainable development goals, there becomes a need to support the growth of health and safety awareness in the small and micro business of the informal sector economy owing to fact that greater percentage of the population are fully engage in this sector, (Health Canada, 2010) These activities have different health and safety implication attached to it and this study is determined to unravel the challenges and the prospect faced by individuals that are engaged in such activities and the global implication of local awareness. Risk assessment should be conducted in every business to identify and determine the associated hazard and prevent it as they are reasonably practicable. According to regulations on health and safety policy checklist BIF039 (2016), any business that engage the service of more than five employees, an assessment should be conducted and written down in form of a policy statement for everyone to have access to it. Whereas for less than five employees an assessment should be conducted, but might not be in

written form. This information is mostly known to operators of the formal sector on maintaining the health and safety precaution in their businesses and they are abreast with standardization due to regular monitoring and during CAC registration. The small and micro urban informal sectors that are contributing to the micro economy of the state have little or no awareness of such guidelines and will ignorantly jeopardize his or her health status. Different activity will also mean that different health and safety risk is likely to be encountered. Small and micro businesses urban informal sector activities drive productivity, improvement and spur innovation by encouraging the productive chunk of the population in stimulating competitions. They are the heart of the processes of creativity indeed; it is axiomatic that today's large business started small and that their future rival and replacements are to be found in the innovative start-up of today. Small and micro urban informal sectors scales are vital part of any free enterprising society and it is from these scales rather than government or large corporate organisations that employment growth will emerge in the near future

(Tom, 2015). As the health and safety with entrepreneurial awareness keeps rising all over the world it becomes imperative that the small and microenterprise in the informal sector that is taking the large chunks of the population be incorporated into the plans of regulatory compliance for the good of all. It is against this backdrop that this study seeks to investigate the health and safety risk associated with their activities as well as recommends the best possible method of environmental awareness.

II. AIM AND OBJECTIVES OF STUDY

The aim of this study was to assess the environmental health and safety associated with some selected small and micro urban informal sector activities in Port Harcourt Metropolis in Rivers State.

Objectives: The objectives formulated shall be as follows to:

1. Determine how many of the small and micro urban informal operators are documented in the study area
2. Ascertain if there is any health and safety policy that guides their operations in the study area.
3. Describe the best possible method to adopt in health and safety awareness campaign that is common and acceptable to assist the small and micro operators for safety of their operations in the study area.

III. METHOD OF STUDY

This research deployed cross sectional survey and descriptive method of data analysis. According to Kerlinger (1986), as cited by Oyegun (2003), the most important purpose of a survey research is to describe systematically the distribution of socio-psychological variables of a set of population. It has to do with attitudes from various respondents, their behaviors and opinions on certain issues. To achieve our aim there is need to understand the psychological and attitudinal behavior of how the small and micro operators in the urban informal sector conforms to the occupational health and safety regulation in their various businesses.

IV. STUDY POPULATION AND SAMPLE SIZE

The population for this study was made up of 30% of the 89 communities in Obio/Akpor Local Government Area and 30% of the 25 communities that make up the Port Harcourt City Local government Area. Port Harcourt Metropolis is made up of Obio/Akpor and Port Harcourt Local Government Areas. The 30% of the study are made up of 17 communities from Obio/Akpor and 18 Communities from Port Harcourt Local Government Area. The 35 communities were further stratified into 5

strata of 7 communities each and random sampling technique was applied to obtain the desired sample size for the study.

The essence of the stratification was to classify the population into sub-populations, strata or group for random sampling. The 35 randomly selected communities represented the 30% of the communities in Port Harcourt Metropolis. This method was adopted as being representative of the study population. A month observation through the pilot study in the selected communities revealed that at least twenty small and micro enterprises operate within every 200 meter and some even more close at about 50 meters distance, this will give an estimated number of 3680 small and micro scale enterprise in our selected communities. Using Taro Yamane's formula (1967) where n = sample size, N = total population, e^2 = level of significance and 1 = constant. The formula is given as;

$$n = \frac{N}{1 + N(e)}$$

$$n = \frac{3680}{1 + 3680(0.05)}$$

This leaves us with a total number of 400 questionnaires that will be distributed to the small and micro scale business will be drawn through sampling techniques from the communities based on their proportion to the whole Metropolis. Furthermore, the non-probability sampling technique shall be deployed as a result of the observed increase of engagement by the populace, which is the reason for the selection of these businesses. According to World Bank research report conducted by (Nancy, et al., 2014) small and micro business are categorized as Agro and Non-agro.

Table 1: Category of business ownership types

Agro	Non-agro
Cassava Mill	Saloon
Poultry farm	Restaurant
Grinding Mill	Kiosk Shop

Source: World Bank (2019)

V. ANALYTICAL TECHNIQUE

The statistical tool used was the Univariate and Bivariate analyses; this was because of the scale of measurements adopted in analyses of non-parametric nature of data. The use of central measurement tendencies like simple percentages, and cross tabulations were deployed to analyses the data generated from respondents.

VI. RESULTS

Objective one

Table 2: Question; interrogated the respondents on the number of small and micro urban informal operators that are documented in the study area

Location	Grinding Mill	Cassava mill	Poultry farm	Saloon	Restaurant	Kiosk shop	Total	Percentage %
Port Harcourt Township	15	10	25	20	25	25	120	30.9
Mile 1, 2 & 3 Diobu	30	30	30	30	40	30	190	48.9
Other areas	15	5	10	20	18	10	78	20.1
Total	60	45	65	70	83	65	388	100

Table 2 above shows the various responses with regards to the numbers of documented operators in the study area. A pilot survey by the researcher revealed that they operated at very close proximity with one another although there was no documented number of urban informal sectors operators in the study area rather from the pilot study in the three designated locations were listed the different categories of urban informal sector operators to about 3,680 (three thousand six hundred and

eighty small and medium urban informal sector operators upon which the sample size for the study was derived. Therefore the informal sector operators in Port Harcourt township listed were randomly selected for the study as follows; about 120 (30.9%) respondents, from Port Harcourt township; Mile 1,2 & 3 Diobu about 190 (49%) respondents, while other parts in the study area randomly selected had about 78 (20.1%) respondents respectively.

Objective Two

Table 3: Question: Interrogated if there was health and safety policy to guide the operations of the urban informal sector operators.

HSE Policy Guide for Informal sector operators	Grinding mill	Cassava mill	Poultry farm	Saloon	Restaurant	Kiosk shop	Total	Percentage %
Hazards/Risk identification	5	5	10	5	5	9	39	10.0
Risk on the job Assessment	10	7	8	5	7	8	45	11.5
Implementation of controls	8	7	8	3	2	5	33	8.5
Lack of Regulations	22	23	41	40	30	40	196	50.5
Lack of Enlightenment	11	8	7	8	21	20	75	19.3.
Total	46	50	74	61	65	82	388	100

Table 3 above Shows the responses from operators across the sample areas on the health and safety policy that guide their operation, from the table it can be observed at a glance that about 196 respondents (50.5%) attested that there was no regulation (policy guide) that regulates their operations. Further mores about 75(19.3%) respondents attributed this to lack of public enlightenment, while the risk assessment on the job 45 respondents (11.5%), Hazards and risks on the job

(10.0%) and implementation of control measures (8.5%). From the analysis on the table we can deduce that the urban informal sectors operated without any health and safety guide line.

Objective three Question: Describe the best method to be adopted in providing health and safety awareness to the urban informal sector operators in the study area.

Table 4: Best method to be adopted to provide health and safety awareness to urban informal sector operators in the study area.

Awareness Media	Grinding mill	Cassava mill	Poultry farm	Saloon	Restaurant	Kiosk shop	Total	Percentage %
Television	10	10	10	15	8	7	60	15.5
Smart phones, face-book, Twitter etc.	15	15	20	15	20	20	105	27.0
Radio/Jingles	5	2	5	12	12	22	58	15.0

Newspapers/Posters/ handbills	10	10	15	10	10	10	65	17.0
Face to face Discussion	15	15	15	15	15	25	100	25.7
Total	55	52	65	67	65	84	388	100

Table 4 above shows about 105 respondents which represent 27.0% who attested that the method of reaching out to the urban informal sector operators was through use of smart phones. Other methods suggested were face to face discussion 100 respondents (25.7%), Newspapers, hand bills and posters 65 respondents (17.0%), while Television and Radio jingle were 15.5% and 15.0% respectively. It is very clear that the world is at its technology age and the best medium to reach out to this sector faster was through the use of smart phones and possibly face to face interaction to explain the health and safety implications of not abiding by the health and regulations governing their operations.

VII. DISCUSSION OF FINDINGS

The various categories of small and micro urban informal sector operators have vehemently stated that there is difference between the inclusion of documented or oral health and safety policy that guide its operation with the rising health challenges that is been recorded at the primary health care, especially occupational health issues. It was seen that the operators of cassava local mill within the local government area recorded that 59% of the respondents who attested to the fact that they are experiencing respiratory problems like breathing difficulty, chest pain and coughing due to inhalation and duration of exposure. Especially for those that have been in the business for 5-10years. The survey revealed that in poultry farming, duration of exposure and inhalation, especially for 90% for those who have spent longer time in the business suffer body-ache like waist, back and joint pain in addition to skin irritation. This is as a result of increased duration from respondents at work place and frequency at which the working environment is been cleaned. The difference is further established by this set (Saloon) operators from the way and manner and the nature of their job and the personnel involved. For example, 58.5% of respondents from the saloon category have up to vocational and tertiary level of education. So it is believed that they more enlightened individuals go into this kind of business and the various training that would be given to enhance their technical-know-how on this type of job have been acquired, therefore have greater chances of introducing the precautionary measures. Respondents from restaurant

category suffer more of respiratory and skin related challenges, because of the closeness to fire and inhalation of smoke. About 41% of respondents from this category (Restaurant) have secondary school certificate as their highest level of education, while over 44.7% spend close 13 hours and above at place of work. Due to the closeness to heat, about 32.8% of the respondents revealed that skin related ailment are most predominant, skin related problem like itching, rashes, bleaching and irritation. Furthermore, Fuyane et al., (2013), asserted that not until health and safety consciousness becomes a way of life in our everyday activities, the mandate of united nation in the agenda of sustainable development will amount to an exercise in futility

VIII. CONCLUSION

Health and safety is the primary pathway towards achieving sustainable development, this is a call for the need of preserving the earth for the future generation as well as doing business in good health which is now of grave concern to the world. This has brought several nations of the earth to promulgate laws for strict adherence especially as regards to one's health. Unfortunately in the third world countries the narrative seems to be only on paper and in most cases nothing at all. This study is concerned about the health and safety challenges of the informal sector, particularly the micro and small operators. It has become necessary to conduct risk assessment in every business so operators can identify associated hazards associated therein. The formulated policy of health and safety are often times concerned to operators of the formal sectors alone, as such the need to beam our search-light on the micro and small operators of informal sectors. The selected category that was identified in this study includes local cassava mill, poultry farm, saloon, and restaurant and kiosk shop. Williams, (2005) in his presentation of traditions of geography enumerated earth-science and the importance of man in the physical environment where this rising economic activities take place. Obviously, the need to bring the peaceful co-existence of environmental and economic practice would guarantee the goal towards sustainable development. Small and micro business operators have been identified

by various scholars that it is the heart-beat and live-wire of any economy, because it is easy and least expensive to begin. It becomes important and imperative that health and safety for small and micro business operators in the informal sectors be given the considerations it deserves and incorporated into the overall plans and scheme for regulatory compliance. In an informal sector, the government can even claim ignorance of its operations not to talk of locating where they are carried out. The assessment of health and safety in these selected businesses from respondents has been able to highlight the health challenges faced by operators and the most preferred means of environmental education. The access to information about health and safety from the informal small and micro scale category is highly deficient especially to the various individual in the communities that make up the urban areas that probably have no good network signal. The associated risk to the categories includes eye problem, skin problem, respiratory problem and body-ache. In the event of things, the local awareness and consciousness has brought more enlightenment of health and safety measures as members of the various categories agreed that the global staged awareness approach has been high-jacked by political big-wigs with little or nothing down the rungs of the ladder within the geographical space. According to the BIF, 039 (2016) health and safety guide, it is required that any firm with more than five employees should have a written health and safety policy that members can access at will. If the employees are perhaps less than five, an oral health and safety policy should be conventionally provided, which in this study the researcher has assessed the compliance to this regulation. The compliance rate of health and safety regulation to challenges faced by operators in the informal sectors is of serious concern that more studies should be focused on, if we shall implement the sustainable development goals. Furthermore investment in the health and safety sector in these category of jobs this would help policy makers carry out right decision that will affect the very individual as well as potential entrepreneurs.

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