AN ASSESSEMENT OF THE IMPACT OF OBAJANA CEMENT FACTORY ON THE SOCIO-ECONOMIC DEVELOPMENT OF OBAJANA, KOGI STATE, NIGERIA

BY

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A DISSERTATION SUBMITTED TO THE SCHOOL OF POSTGRADUATE STUDIES, AHMADU BELLO UNIVERSITY, ZARIA IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF SCIENCE DEGREE IN DEMOGRAPHY AND POPULATION STUDIES

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DECLARATION

I declare that the work in this dissertation, entitled "An assessment of the impact of Obajana cement factory on the socio-economic development of Obajana, Kogi State, Nigeria" has been carried out by me in the Department of Geography, Ahmadu Bello University, Zaria under the supervision of Professors M. Mamman and J. G. Laah. The information derived from the literature has been duly acknowledged in the text and a list of references provided. No part of this work was previously presented for another degree or diploma in this or other institution.

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CERTIFICATION

This dissertation entitled "**An assessment of the Impact of Obajana Cement Factory on the socio-economic development of Obajana, Kogi State, Nigeria**" by Sunday Edward BALOGUN meets the regulations governing the award of the degree of master of science in Demography and Population Studies of Ahmadu Bello University, Zaria and it is approved for its contribution to knowledge and literary presentation.

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DEDICATION

I dedicate this work to my late sister, Temidayo Balogun who is no longer alive to witness my graduation. May her gentle Soul continue to rest in peace (Amen).

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Abstract

Cement factories in Nigeria need development and expansion as a result of high prices in cement product as well the benefits from the factories to the host communities. The study assessed the impact of Obajana cement factory on the socio-economic development of Obajana, Kogi State, Nigeria. Data was collected through administration of questionnaire among 361 households that were systematically sampled. Also, three sections of Focus Group Discussion (FGDs) were held with groups consisting of male, female and youth in the study area. The data was analyzed using both descriptive and Principal Component Analysis techniques. The result from the analysis indicated that only 7% earn above N80,000 per month while 25.2% earn below N20,000 monthly. It was also perceived that the establishment of the factory has generally improved the income of the residents because most residents have diversified their income base from agriculture to other more profitable businesses hence, more than 70% earn above than the N18,000 minimum wage monthly. The standard of living of the people of Obajana have also been improved. This is because more health, education and other social facilities have been established as a result of the influx of people into the area. About 24% are now living their personal houses while 42.7% live in rented apartments. About 94% of the respondents agreed that the population of the community has now constituted a market for local agricultural produce, farmers no longer travel to Kabba or Lokoja markets to sell their products as what they produce is barely enough for the consumption of the reside. It was also discovered that about 21.3% were employed in the factory and other jobs have also been created indirectly in the community as a result of the movement of diverse people into the area. However, about 44% of the respondents claimed they lost their farmlands as a result of the company which in turn, affected their income. Infrastructurally, as a result of increase in the population of the study area 83% of the health facilities, 93% of educational facilities, 92% of the water facility and 100% 0f the commercial Banks came to existence after the establishment of the company. On the other hand, the company has not been able to provide the basic social amenities for the community such as street roads, drainages, health facilities etc. The result of the principal component analysis revealed that the social impact that positively loaded included the award of scholarships to indigenous students, increase in social vices, supply of electricity as well as displacement of the original land owners accounted for the cumulative eigen value of about 38.8%. This is an indication that the establishment of the factory has impacted socially both in positive and negative ways. On the basis of the findings, the study recommended that Obajana cement factory should execute projects such as building schools, construction of roads, provide health facilities, potable water and ultra modern market in collaboration with community stake-47holders and government. The company should also initiate a well monitored credit facility programme to the indigenes of Obajana who are not working in the company in form of soft loans. This will enable them to go into private businesses which will in turn improve their live.

CHAPTER ONE: INTRODUCTION

1.1 BACKGROUND TO THE STUDY

Industrialization is a term that is mostly associated with the development experience of countries in Western Europe and North America during the 19th and 20th centuries (Purma, 2001). According to Perkin, Radalet, Snodgrass Gillis, and Roema,(2001), Industrialization refer to a part of a wider modernization process where social change and economic development are closely related with technological innovation, the application of science to the problems of economic production leads to industrialization, urbanization and improved quality of the population. Consequently, a high premium is placed on the development of the industrial sector of developed economies. Quite often, it is argued that the developed countries of the world attain this level of development because of the technology that increases the number of industries within their economies.

Industrialization broadly refers to the transformation of agrarian-rural societies to industrial-urban societies that are dominated by manufacturing and services (Maddison, 2007). The beginning of this transformation often referred to as the industrial revolution, is conventionally traced to the late 18^{th} Century England. Industry is also more narrowly equated with manufacturing and industrialization is specifically associated with the growth of manufacturing with the so called factory system that began to proliferate at this time (Angus, 2001). In this early sense, it refers to a marked departure from a subsistence economy that is largely agriculture towards a more mechanized system of production that entails more efficient and more highly technical exploitation of natural resources in highly formal and commercialized economic settings (John, 1997). Industrialization is a process of social and economic change whereby a human society is transformed from a pre-industrial to an industrial state (Nove, 2005). In the early sense,

it was referred to as a marked departure from a subsistence economy that is largely agricultural towards a more mechanized system of production that entails more commercialized economic settings (John, 1997). Industrialization was understood purely on economic terms particularly the physical presence of industrial plants that were involved in manufacturing capital goods as well as processing raw materials into finished goods either for industrial use, general commercial use or purely for domestic use or purposes (Todaro, 1989). Further definition of industrialization during the later part of the 20th century expanded to refer to a process of development that is balanced and sustained as far as the economic as well as socio-economic realm of any society is concerned (Oyenga, 1988). Industrialization is a critical key to economic growth that calls for improvement in systems, technologies and processes that utilizes natural resources more effectively. Interestingly, about a fifth of global income is generated from manufacturing industry and nearly half of household consumption relies on goods from industrial processes (Ibbih and Gaiya, 2013)

Mineral exploration has supported the social and economic development of many developed countries (Akande and Idris, 2005). For example, the uranium mining in Canada and iron ore extraction in Germany have helped the two countries to develop infrastructurally as well as quality jobs creation invariably improving the countries standard of living. More so, the impact of industrialization on socio- economic development cannot be overemphasized (Aribigbola, Fatusin and Fagbohunka, 2012). In developing countries, it will continue to produce technological development and employment. According to Imasiku (2008), large scale mineral exploitation has contributed to over 90% of all foreign exchange earnings, 60% of Gross National Domestic Product (GNDP), 50% of total government revenue and 30% of total employment in some southern African countries. Similarly, small scale mineral exploitation provides a source of livelihood in rural and semi-urban Nigeria in particular and Africa in general.

Exploitation of mineral resources has assumed prime importance in several developing countries including Nigeria. Nigeria is endowed with abundant mineral resources which have contributed immensely to the national wealth with associated socio-economic benefits. Mineral resources are important sources of wealth for nation but before they are harnessed, they have to pass through the stages of exploration, mining and processing (Ajakaiye, 1985; Adekoya, 2003).

The intention behind the encouragement of industrialization according to Ofori-Cudjo (2009), Endashaw (2009) and Boakye (2010), lies in the development of a diversified economy that could propel the achievement of stable and sustainable societies. Since the agricultural sector is the main economic activity, sub-Saharan Africa countries cannot provide enough employment and income to the growing population.

Few years after Nigeria's independence, the major economic policy emanating from the new government was that of import substitution (Oyebanji, 1983). Consequently, several large scale industries were built by various levels of government and individuals that were desirous of quick industrialization. One of such is Ewekoro Cement Plant by Ogun State government, Sokoto Cement by the Sokoto State Government and that of Obajana cement plant owned by Dangote in Kogi state. One of the often touted solutions to the problem impacting development in the third world countries is the emphasis on industrial enterprises (Aribigbola, Fatusi,and Fagbohunka 2012).

After the Second World War, political leaders in the third world favoured developmental strategies based on rapid industrialization. Raw material production was regarded as a legacy of the colonial era and industrialization was regarded as essential to raise the living standard of the masses. Over the last seventy years, there has been a shift away from the advanced capitalist or

first world. Until the late 1920s Western Europe, North America and Japan accounted for over 90% of the world industrial production (Jenkins, 1992).

The efforts of the government to use mineral deposits to promote national economic growth have been matched by similar attempts to base the development of peripheral regions upon investment in mining (Afeni, Cowood and Isiaka , *2008).* The gold resources of the Witwatersrand were discovered in 1886 and were responsible for rapid growth of Johannesburg which remains the economic core of South Africa. Similarly, the forty miners attracted by john Sutter's chance discovery of gold were the catalyst in California's rise to economic importance and the population of San Francisco rose from just 450 in 1847 to more than 55,000 by 1860 (Warren, 1998) This experience demonstrates the operation of process on the circular and cumulative causation based on the initial advantage provided by mineral resources (Chapman and Walker, 1998). It could be glaringly seen that, the most significant impact of exploitation of minerals has caused the migration of thousands of foreign and non-local employees to the area occupied by a mine, concomitantly upset the social balance of the local communities, impacting on local water supplies and the available resources.

Nigeria and other less developed countries are said to be economically backward because their economic pattern is based on supplying raw materials to industrialized countries and importing manufactured products in return. An attempt to reverse the trend has led to formulation and implementation of many policies on industrialization (Nove, 2005). For instance, the Nigerian government at a time had created agencies for the purpose of industrial development (Teriba, 1977). For obvious socio-economic factors, industries are usually established in urban centers even though raw materials are sourced from rural areas. However, the low level of socio-economic transformation in many rural areas, has led development experts to perceive rural

industrialization as a way out. Repeated calls have been made in support of rural industries, especially, those using bulky materials found in rural environment. Examples of these, include, iron smelting industries, cement factories, vegetables and fruit canning industries and so on. However, in spite of the natural resources available in the rural and urban areas of the country, the nation can only attain her development plan if she efficiently manage and direct the use of these resources well. The full potential of the resources have to be properly exploited.

With reference to cement factories, the federal government had in the early 1950s explored the possibility of establishing a cement factory in Nkalagu. This followed the discovery of large quantity of limestone deposits in the area. But this plan was not completed, nor was the Nigerian Cement Company incorporated until 1954 (Ugoh, 1977). After this period, more cement factories were established. They include West Africa Portland Cement Company at Ewekoro, Cement Company of Northern Nigeria in Sokoto, Bendel Cement Company Plc at ukpella, United Cement Company Plc, Calabar, Ashaka Cement Company Plc, Benue Cement Company Plc, Gboko and Dangote Group Cement Factory Obajana.

The establishment of Cement industry in the above mentioned communities is expected to have heavily impacted on the people, both physically and socio-economically. These impacts can be both positive and negative. Cement industries all over the world create dusts thereby giving room to lungs related diseases. On the other hand, it will create jobs, develop infrastructure thereby improving on the livelihood of the people of the community. The main challenge presently trailing the Obajana community is the impact of the factory on the overall wellbeing of the inhabitants and that is exactly what this study is poised to find out.

The contribution of industry to local and national economy in all facets is not in doubt as it is one of the key drivers of economic growth and development. The impact of industrial activities is felt in a variety of ways. The presence of industries in any community most especially large scale industries such as textile, automobile, cement confer external benefits in the area of employment generation, infrastructure provision and boost in the residents' social-economic status, population upsurge, expansion of local market, increased demand for accommodation, vibrant real property development and consequently increase in property value. In terms of land use, while these industries may produce goods and services that are beneficial to a segment of the population, the property values of others may diminish (ling and Archer, 2005). This leads us to the principle of Corporate Social Responsibility (CSR) which is also referred to as corporate conscience, corporate citizenship or corporate social opportunity. CSR is described as an attempt at instilling discipline and the integration of self regulation into business principles and ethics of Multi-National Corporations (MNCs). It functions basically as a build –in self regulating mechanism whereby business organizations monitor and ensure active compliance with the spirit of the law, ethical standard and international norms (Ojo and Akande, 2013)

In Nigeria the quest for formalized CSR practices started during the military administration of the 1990s as typified by Shell Nig. Plc- Ogoni imbroglio to the sudden realization that one cannot continue to take so much without the restoration of a little. According to Ikein (1990), CSR focused business would promote the public growth and development as well as voluntarily eliminating sharp practices that can harm the public interest regardless of legality.

Most of the Multi National and locally owned companies in Nigeria have failed to measure up to the standard of international norms and ethics of the corporate social responsibility. The give and

take approach of the companies to their host communities is far from what is obtainable in the Europe and other developed countries where standard is insisted on. It has been alleged that business practices are destroying life on earth and are responsible directly or indirectly for the most dramatic human impact on the ecosystem.

Obajana Cement Factory was incorporated by the Kogi state Government in 1992. It was however, acquired by Dangote Industries Ltd (DIL) in 2002. The Obajana Cement Factory was initiated in 2003 and the construction started in 2004. It was later commissioned in 2007 with a capacity of 5million metric tones of cement annually but today, the company can boast of producing about 13.25 million metric tones of cement per annum and this gives the company the number one position in Africa as the largest cement producer. Therefore, it is expedient to check if this company is actually giving back to its host community as part of its CSR.

1.2 STATEMENT OF THE RESEARCH PROBLEM

Industrialization is often seen as the basis for the economic development and growth of any nation. Nigeria like many other countries aspiring to attain economic growth and development has long embraced the concept of industrialization and has since been concentrating her effort toward achieving it. The location of industries in areas where they are not existing before have been seen to have some effects on such places.

Several studies have thus, been carried out on the prospects and effects of cement industrialization on most of Africa's populace. Winmore, Nyashadzashe and Thomas (2012) maintained that cement is a basic construction ingredient. Its demand is high due to extensive infrastructural

development taking place across the globe. Global consumption of cement has been increasing at an alarming rate. According to Hannah (2011), cement production in Africa rose from 1.2 billion tonnes per annum in 2005 to 2 billion tonnes per annum at the end of 2010. In Africa, persistence rise in the price of building material and constant importation of cement has led to the speedy development of cement factories (Afeni, Cowood and Isiaka, 2008). However, Harley (2007) noted that whilst cement manufacturing industries bring so many benefits in form of markets for local goods, local people normally failed to harness these opportunities.

The production of cement is known to have multiple negative impacts on the surrounding environments and human health, in both developed and developing countries (Harley, 2007). Akande and Idris (2005) revealed that cement manufacturing also has a myriad of socio-economic impacts on the surrounding communities. Such impacts include land use dispute between the host community and the manufacturing company, health problems, increase in crime and infrastructural development. Studies by Hilson (2002) and Samuel (2002) further observed some of the effects as pollution generation, land degradation, destruction of wildlife and crops, disruption of traditional values and even relocation of the local people. These disrupted family ties and community life and sometimes caused economic inequalities as evidenced in Bangladesh where the villagers were displaced from their agricultural land which was their primary source of livelihood (Hilson, 2002).

Afeni, *et al* (2008) assessed the socio-economic impact of quarrying and processing of limestone in Obajana, Kogi State. In order to achieve their objectives, questionnaires were administered to get information from respondents and both descriptive and inferential such as chi Square were used to analyzed the data. They indicated that generally, lifestyles of people around cement manufacturing plants was poor and characterized by poor education and subsequently, high

percentage of illiteracy. This clearly shows that establishment of lucrative cement manufacturing ventures in rural communities does not guarantee improvement in their living conditions. However, they did their research when the cement factory was still at its infant stage. As at the year 2008, Obajana cement factory has the production capacity of about five million metric tones of cement per annum but by 2014, the production capacity has increased to about 13.25 million metric tones per annum., Therefore, between these periods, a lot of developments must have taken place both socially and economically which their work did not capture or indicate and this makes this work an important one. While their work was based on how the quarrying and processing of limestone has impacted on the people. The researcher will conduct his research holistically on how the factory at large has impacted on the community both socially and economically.

Musa and Kpanache (2014) carried out a research on the impact of Obajana as a growth pole in Obajana. The study examined the regional extent of the multiplier effects induced by the cement company in the region. It also assesses the socio-spatial and economic development within and around the host community before and after the establishment of the cement industry. Data sourced through personal observation of the researcher, questionnaires and oral interviews were analyzed with the use of descriptive statistics. The finding of the study shows that the region is experiencing spatial growth and development. Therefore, the researcher will focus on social and economic development the company has brought to the community.

Aribigbola *et al* (2012) assessed the health and environmental challenges of cement factory on Ewekoro community residents in Ogun State. Interviews were conducted, Questionnaires were randomly administered to both residents and staff of Ewekoro cement factory. The data were analyzed through descriptive statistics. The study confirms extensive incidence of land, air and noise pollution over and above recommended limit. It also discovers lack of substantial

compliance with the principle of environmental integrity sustainability and National Environmental Standard Regulatory Authority (NESRA) in terms of environmental resource protection. This study will focus on the social and economic aspect rather than the physical and environmental impact of the factory on Obajana.

Aigbedion and Iyayi (2007), also researched on the environmental effects of mineral exploitation in Nigeria and came out with a conclusion that mineral exploitation causes different types of environmental damages which includes ecological disturbances, destruction of natural flora and fauna, pollution of air, land and water, instability of soil and rock masses, landscape degeneration and radiation hazards. They went further to state that the environmental damages have in turn resulted in waste of arable land as well as economic crops and trees. While their work was based on mining generally, this study will look into an aspect of mining which is Cement production and how if impact on the people of the study area.

Mojiminiyi, Merenu, Njoku and Ibrahim (2008), examined the effect of cement dust exposure on haematological and liver function among cement factory workers in Sokoto. Experiments were conducted on 23 staff and 46 unexposed persons who served as the control. The results pointed out that occupational exposure to cement dust may perturb haemopoietic function while preserving liver. This study will involve both the cement factory workers who are resides in Obajana as well as other residents.

From the foregoing however, majority of the researches focused only on environmental and health impacts of cement factories on the populace. Only a few focused on the socio-economic implication on the people holistically. It is expedient to note that the cost of development could be detrimental on the short run but beneficial on the long run. It can be seen from the previous studies reviewed

above that limited research were carried out on Obajana cement factory especially on the socio-economic aspect. Hence, it became imperative for the researcher to focus in assessing the impact of the cement factory on the socio-economic development on the Obajana community. In order to fill this existing gap in knowledge, this study will address the following research question:

1 What are the factors responsible for the establishment of Obajana Cement Factory in Obajana?

2 What are the social-impact of the Obajana factory to the immediate community?

3 What are the economic-impact of the Obajana Cement Factory on Obajana residents?

4 What is the impact of Obajana cement factory on the infrastructural development?

1.3 AIM AND OBJECTIVES OF THE STUDY

The aim of this study is to assess the impact of Obajana Cement Factory in Obajana on the socio-economic development of Obajana community. However, the specific objectives are to:.

i. examine the factors responsible for the establishment of the cement factory.

ii. analyze the social impact of Obajana Cement Factory to the people of Obajana.

iii. examine the economic impact of Obajana Cement Factory to the people of Obajana.

iv. assess the impact of Obajana of Obajana cement factory on the infrastructural development of Obajana community.

1.4 JUSTIFICATION FOR THE STUDY

Although various scholars and researchers have dealt with the impact of industrialization in developing countries in various aspects, this study shall however take another dimension in the assessment of industrialization. It highlighted how industrial activities have encouraged development in rural areas.

A cement factory is an establishment that exploits human and material resources in an area. This is believed to usually result in increase in population, urbanization and rapid economic development.

The presence of Obajana Cement Factory in Obajana and the role it plays in the industrial development of Nigeria made it appropriate to study the organization. This will deepen our knowledge and provide ideas which will help in sustaining industrial activities towards making Nigeria an industrialized society.

This work shall be of benefit to researchers, economists, geographers, policy makers, industrialists, planners and inhabitants of the study area in terms of planning and policy making.

1.5 SCOPE OF THE STUDY

The scope of this study is to assess the impact of Obajana Cement Factory on the socio- economic development of Obajana, Kogi State. Obajana is in Lokoja local government area of the state. Obajana district covers about nine (9) villages (Musa and Kpanache, 2014). As a result of the wideness of the study area, only Obajana community was picked out of the villages in the district. This is because Obajana is the largest in terms of human population and residential houses among

other neighboring communities in the district. Besides, Obajana is the hub of economic activities being the location of the giant industry. In achieving this goal, the demographic characteristics such as age, gender, number of children were examined. The study also examined the socio-economic determinants of respondents such as income, level of education, religion, occupation etc. Heads of households in the study area will be interviewed. This enabled the researcher to ascertain what was obtainable before the establishment of the cement factory and how the company has been able to impact on the Obajana community between 2004 and 2014, that is ten (10) years after its commencement. Special attention was paid to how the factory has impacted on the Obajana community socio-economically as well as the infrastructural development. Obajana cement factory was a green-field cement plant that was initiated in 2003, while the commencement of the construction of the first phase of the cement plant was in 2004 and it was commissioned in 2007 (Vetiva, 2010). Therefore the production of cement started after the commissioning of phase one in 2007.

CHAPTER TWO: CONCEPTUAL FRAMEWORK ANDLITERATURE REVIEW

2.1 CONCEPTUAL FRAMEWORK

Some concepts examined include industrialization, development, rural area, corporate social responsibility mineral exploitation. The examination of these concepts is based on their instructive importance to this research work.

2.1.1 Industrialization

According to Hamilton (1967) industrial activities are as varied as quarrying of chalk, the smelting and refining of metals, the assembly of electronic materials to the supermarkets found everywhere. Based on this, Hamilton (1992) classified industries into four based on their operational processes. These are extractive industry, processing industry, assembling industry and service industry. Since this study focuses on exploitation of limestone, it deals with extractive industry. However industry as an activity should be differentiated from industrialization which is a process. Different scholars have viewed the concept of industrialization from different perspectives. Some of these are examined to properly situate the direction of this work.

Gregory and Robert (2001), defined industrialization as a process by which manufacturing industries develop from within a predominantly agrarian society. To them, industrialization is generally accompanied by social and economic changes, such as fall in the birth rate and a rise in per capita gross national product (GNP), urbanization is encouraged and groups of manufacturing towns may develop.

Sullivan and Sheffin (2003) defined industrialization as the process of societal and economic change that transforms a human group from agrarian to industrial one. In their views industries

bring about changes in three ways: modernization, development of large scale energy and metallurgy production. These aspects are closely link with economic growth. They also assert that industrialization bring with it the sociological process of rationalization.

The concept of industrialization was viewed by James (1981) to imply the movement of economy from a primary agricultural basis to mixed industrial/service basis with an accompanying increase in output and output per capita. Pan-Afican Voices for Freedom and Justice (2009), defined industrialization as a change from a society based on agriculture to one based on manufacturing. Industrialization is the process undergone in much of the developed world during the industrial revolution. It explains features of the process to include automation, scientific development, the introduction of factors of production, the division of labour, the replacement of barrier with a money-based economy, a more mobile workforce and the growth of urban centers.

Lathan (2003) defined industrialization as a process of social and economic change whereby a human society is transformed from a pre-industrial to an industrial state. This social and economic change is closely intertwined with technological innovation, particularly the development of large-scale energy production and metallurgy. It also sees industrialization as related to some of philosophical change, or to a different attitude in the perception of nature.

Industrialization was seen by Chijoke (1982), as a way of life, like agrarianism. He sees it generally as an organic system for maximizing the nation for (phenomenological energy output to the human energy output) man's control of his eco-system. In the field of economics and geography, industrialization has long been a subject of study. In fact in some circles, development has been defined based on the level of industrialization.

There is scarcely a country in the modern world where an improvement n the material level of living is not regarded as a desirable goal by the rulers and the ruled and where industrialization is not seen as the necessary means to achieve it (Kemp, 1990). The nations which are rich and powerful posses a technologically advanced industrial base, capable of turning out large volume of manufactured goods. Nations which are poor and less developed have little or no industry and are primarily agricultural or raw, materials – exporting mono-economy.

The process of industrialization began in a group of islands off the North-west coast of Europe as the British Industrial Revolution (Kemp, 1990). Since the Second World War, industrialization has been generally sought by newly developing countries as the means to raise living standards and to ensure national independence. Widely published tables of income level of the countries of the world leave no doubt that when incomes are generally higher, the greater is the contribution made by manufacturing industry. Countries which have little or no industry are almost invariably poor. Therefore to overcome poverty and economic backwardness a country must be industrialized.

Nigeria is a major industrial country in West Africa sub-region and Africa south of the Sahara. A few studies have focused on manufacturing activities within the country. Mabogunje (1980) and Ayeni (1981) study on the spatial pattern of manufacturing activities provide detailed studies on manufacturing in Nigeria. The consensus is that manufacturing in Nigeria is concentrated in few cities and especially the state capitals. Industrialization has therefore been slow and limited in character while the economy is still largely dependent upon export of new materials.

The slow and limited character of Nigerian industrialization can be traced to some infrastructural requirement needed for technological development that are lacking or limited in Nigeria. These

include skilled manpower, transportation infrastructure, communication facilities, water supply, fuel and power, raw materials and fund (Chijoke, 1982).

The goal of any country is development. Development is development of people, their increased living standards and improved quality of life. Industry provides goods, services and material comforts to improve living standards. Such development can only come by generating, mobilizing and optimally utilizing natural and human resources skills and maximizing the returns for the same.

In Nigeria, majority of the people live in rural areas where there are good agricultural soil, water, forest or agricultural crop, animals and people. There are also some areas which have natural mineral resources for example limestone in Obajana community. How to maximize the returns from these resources is very important. Many people believe that rural development is synonymous with agricultural development, this is true because rural people live on land rich in agricultural production which is their main occupation and agricultural development is a must. But it is not enough, agriculture should have a nexus with industry. Every part of agricultural plant must become a raw material for industries. For example, several industries may be set up around a paddy plant. Straw may be used for making card boards, wrapping paper, roof hatch, bed for mushrooms. Apart from animal folder, Paddy musk may be used as fuel and the resultant ash for producing sodium silence, solar guide silica, silica sol, ceramic materials and cement like products. Industries can be started around sugar cane, cotton and groundnut etc (Jagadeesh, 2006). There are also some rural area rich in natural mineral resources, industries can be established in such places to utilize such resources. For example limestone deposit in Obajana, Ukpilla, Ukalagu, Ewekoro etc.

Borensztein, De Gregoria and Lee (1998), carried out a study using panel data of 69 developing countries over a period of two decades 1970-1989 investigating the impact of industrialization on economic growth. They used a basic estimating equation of growth with real GDP as a dependent variable and foreign investment, measure of schooling and initial GDP as their independent variable. They find out that industrialization has positive impact on growth but this is only realized when their measure of schooling is above a certain critical level, which is estimated at 0.52. Below this critical level or threshold, industrialization and foreign investment exert a negative impact on growth.

2.1.2 The Concept of Economic Development

Development is an integrated process of expansion of substantive freedom. Economic growth, technological advancement and political change are all to be judged in the light of their contributions to the expansion of human freedoms. Among the most important of these freedoms are freedom from famine and malnutrition, freedom from poverty, access to health care and freedom from premature mortality. (Sen, 1999),

Socio – economic Development on the other hand embraces change taking place in social and economic spheres, mostly of an economic nature. Even though economic aspect comes to the fore in the research on changes in the economy they cannot be isolated from social aspects. Hence, a more apt term for the change and development is change and socio – economic development combining the two aspects. Chojincki (2010)

Indicators of Economic Development Economic growth may be one aspect of economic development but is not the same. Economic growth which is a measure of the value of output of goods and services within a time period while economic development is a measure of the welfare

of humans in a society. Using measures of economic growth can give distorted pictures of the level of income in a country the income distribution is not taken into account. Using measures of economic performance in terms of the value of income, expenditure and output. GDP – Gross Domestic Product which The value of output produced within a country during a time period, GNP – Gross National Product which is the value of output produced within a country plus net property income from abroad, GDP/GNP per head/per capita, this takes account of the size of the population, Real GDP/GNP Accounts for differences in price levels in different countries, High economic growth fuelled through capital spending can hide a number of underlying economic problems – how is the income and wealth distributed? Who is doing the spending and will it 'trickle down' to the poor, Distribution of income, How is the income distributed? does a small proportion of the population earn a high percentage of the income or is income more evenly spread (world bank,2014). The socio- economic development can be measured through the quality of life, Longevity – Life expectancy, Knowledge – Access to education, literacy rates, and Standard of living – GDP per capita: Purchasing Power Parity (PPP) and employment rate.

Development can be seen as the process of expanding the real freedoms that people enjoy. Focusing on human freedom contrast with narrower views of development such as identifying development with the growth of gross national product (GNP) or with the rise in incomes or with industrialization or technological advance or with social modernization (Sen, 1999). He went further to explain that growth of GNP or individual incomes can of course, be very important as means to expanding the freedoms enjoyed by the members of the society, but freedom depends also on other determinants such as social and economic arrangements (for example, facilities for education and health care) as well as political and civil rights (the liberty to participate in public discussion and scrutiny). Similarly, industrialization, technological progress, social modernization

can substantially contribute to expanding human freedom. In his final submission, he articulated that development requires the removal of major sources of unfreedom, poverty, tyranny, poor economic opportunities as well as systematic deprivation, neglect of public facilities as well as intolerance or over activity of repressive states.

Cole (1981), sees development as unfolding positive change and progressive transformation in any society. He gave six ingredients of development which can be summarized as; Human population to serve as resource use, Natural resources which are the bedrock of economic expansion, Means of producing man-made instruments of various kinds such as agricultural implements ex cetera using appropriate technology, Product, goods and services produced, Links which connotes transportation to ensure the movement of goods, people and information from places to places and Organization which is the human resources that items 1-5 are integrated. He was able to identify development as an evolution of progress which is associated with certain indices.

Seers (1969), in his view conceived development as involving not only economic growth but also condition in which people in a country have adequate food and employment and the income inequality among them is greatly reduced. He posed the basic question about the meaning of development when he asserted that the questions to ask about a country's state of developments are three: What has been happening to poverty?, What has been happening to unemployment? What has been happening to inequality?

According to Seers (1969), if all three of these have declined, development can be said to be taking place. He further emphasized that if one or two of these central problems have been growing worse especially if all the three have, it would be wrong to call the result development.

He later observed that he has left out an essential element which must now be added. This is self reliance. This means in addition to reduced poverty, unemployment and inequality, a developed society should be self-reliant.

Mabogunje (1980), in his own submission explained that development can be approached from four ways, these are, economic growth, distributive justice and socio-economic transformation. It is instructive to examine these in further detail.

2.1.2.1 Development as economic growth

Development was defined by Mabogunje in this context as rapid and sustained rise in real output per head and attendant shifts in the technological, economic and demographic characteristics of a society.

2.1.2.2. Development as modernization

Development in the sense of economic growth can be seen as social change described as modernization. According to Mabogunje (1980), modernization produces the environment in which rising output per head is effectively incorporated. The emphasis in development as mo0dernization is on how to inculcate wealth-oriented behavior and values in individuals. It involves principally how make the population of a country understand and accept the new rules of the game of economic growth. Development as modernization saw a new concentration in many developing countries on the building of schools and colleges, extension of coverage of mass media particularly through radio and television, growth in number of health centers and medical establishments, provision of better housing and recreation facilities.

2.1.2.3 Development as distributive justice

Development here is not seen simply as rising per capita income but more important, of reducing the poverty level among the masses or as satisfying their basic needs. This concept addresses the problem of development in any society. It assures that there is a large fairness in the distribution of development. The relationship between the process of creating wealth and distributing it has been a subject of great analytical and policy interest to development economists for many years.

2.1.2.4 Development as socio-economic transformation

The development of a society or country is seen as essentially a transformation of its mode of production. Mode of production refers to those elements, activities and social relationships which are necessary to produce and reproduce real (material) life. Todaro, (1980) asserts that development must therefore be conceived as a multi dimensional process involving changes that is a dimensional process in an economy in terms of structural output and economic growth, attitudes and institutions as well as the acceleration of economic growth the reduction of inequality and eradication of absolute poverty. In recent time, development has been viewed as sustainable development. The concept is intended to embrace the idea of ensuring that future generations inherit an environment which will support their livelihoods in such a way that it will not be worse off than generations today (Pearce, 2004). He went further to say that we can equip development with increased, or at the very least, constant per capita well-being over time.

The United Nations (1992) defined sustainable development as economic and social development that means the needs of the current generation without undermining the ability of future generations to meet their own needs. Mintzer (2005) defined sustainable development as maintaining a delicate balance between the human need to improve lifestyles and feeling of well-

being on one hand, and preserving natural resources and ecosystems, on which we and future generations depend. According to Him, this is "development that meets the need of the present without compromising the ability of future generations to meet their own needs". Sustainable development implies economic growth together with the protection of environment quality, each reinforcing the other. The essence of this form of development is stable relationship between human activities and natural world, which does not diminish the prospects for future generations to enjoy a quality of life at least as good as our own.

Development is a major desire of any nation. Developing countries seem to have a greater need of development for various reasons such as to increase the level and extent of their per capita income, to ensure a continuous flow of goods and natural resources and to ensure that inequalities and inequities in whatever form are reduced. Not that technologically advanced countries do not have need for economic development, but their main concern now is to ensure environmental sustainability of tradeoffs from industrial expansion.

2.2 LITERATURE REVIEW

2.2.1 The Concept of Corporate Social Responsibility (CRS)

Historically, CSR has been viewed as a developed countries phenomena. As such, a large body of literature on CSR practices has emerged in the context of developed countries. However, literature on the theory and practices on CSR in the developing countries remain scant (Belal, 2000). Khan and Atkinson (1987), conducted a comparative study on the managerial attitudes to social responsibility in India and Britain. The study shows that most of the executives agreed CSR are relevant to business and felt that business has responsibilities not only to the shareholders and

employees but also to customers, suppliers, society and to the state. A survey by TERI-Europe and ORG-MARG (2001) in several cities in India revealed that more than 60% of the people felt that the companies should be held responsible for bringing down the gap between the rich and the poor, reducing human rights abuses, solving social problems and increasing economic stability

Some of the surveys like corporate involvement in social change, Altered images, the 2001 state of corporate responsibility in india poll by Tata Energy Research Institute (TERI) etc, the findings of these surveys emphasized that companies across India revealed that philanthropy is the most significant driver of CSR followed by image building, employee morale and ethic respectively.

A study on iron ore mining industry in Goa, India showed that many large mining companies have their initiatives towards environmental and social development. However , a structural CSR policy is missing especially among small and medium scale industries (Conway, 2003). Arora and Puranik (2004) reviewed contemporary CSR trends in india concluding that corporate sector in india benefited immensely from liberalization and privatization process, its transition from philanthropic mindset to CSR has been lagging behind its impressive financial growth.

Saether and Aguilera (2008) identified a difference between the Heterogeneous nature and Leit Motif of CSR. Theirs were of comparative analysis. They identified the difference between the Canadian (Montreal school of CSR), the continental European and the Anglo Saxon approaches to CSR. Even within European categorization, CSR is not homogenous. In this category, Saether and Aguilera are of the view that perceptions vary ranging from those who believe that CSR is charity or philanthropy to those who believe that it is a social responsibility.

Oakley (1999) contend that corporations should work with local communities to better themselves. The CSR that generally lead to more sustainable development should rely on an approach that assist in building the skills of local populace as oppose to mere monetary donation

Another approach garnering increasing CSR interest is called creating share value.This was canvassed by Porter and Kraner (2010). This shared value model is based on the idea that corporate success and social welfare are independent. A business needs a healthy, educational, workforce, sustainable resources and adept government to compete effectively. For society to thrive, profitable and competitive business must be developed and supported to create income and wealth.

Crowther (2000) conceptualized it is as an approach of reporting a firms activities which stresses the need for the identification of the socially relevant the determination of those to whom the company is accountable for its social performances and the development of appropriate measures and reporting techniques.

In another study, Orlitzky, Schmidt and Rynes (2003) found a correlation between social/ environmental performance and financial performance. Their hypothesis is that the more an organization is socially and environmentally friendly, the more its financially buoyancy while vice-versa. In this regards, it is the long term interest of the business that should be paramount. Business should not be looking at a short run financial returns when developing their CSR strategy. This view is corroborated by Bhatlacharya et al (2008) harps on the fact that CSR programme can be an aid to recruitment and retention particularly within the competitive graduate students market. There are instances when potential recruits often ask about a firm's CSR policy during an interview and having a comprehensive policy can give an advantage. This position may

not be applicable to Nigeria where we have a seller's market. Labour is cheap and people just want employment opportunities regardless of CSR package.

Amaeshi et al (2006) explore the practice of CSR in Nigeria with aim of providing whether there it is an indigenous practice or western mimicry. In other words, their concern is whether or not there is a Nigerian brand of CSR or it is an imitation of western CSR practice. The dominance of the west is shaping the CSR agenda is not in doubt. However, their findings confirms the CSR is a localized and socially embedded construct as the waves, issues and modes of CSR practices identified among indigenous firms in Nigeria reflects the firm's responses to their socio-economic context.

A common strand that runs through most of these studies suggest that meaning and practices of CSR is socio-culturally embedded. Firms are products of this socio-economic environment which in turn shapes or influences their CSR activities. Amaeshi et al, were embarking on an elaborate exploratory study of the Nigerian corporate governance framework which is socio-legal contract between firms and society; and later by exploring the socio-economic conditions in which these firms operate, their focus is completely a radical departure from the concern of the CSR objective.

Friedman(2008) particularly among others argue that corporation purpose is to maximize returns to stakeholders and that since only people can have social responsibility, corporations are only responsible to their shareholders and not to society as a whole. Although, He accepts that corporations should obey the laws of the countries within which the work and that corporations have no other obligation to the society as a whole.

At this juncture, it is apt to contend that the philosophy and principle behind CSR is predicted on the assumption that corporations make more long term profits by operating with stakeholders'

welfare empathy. This is the view of scholars like Ratner (2011) that business of leadership be it corporate or otherwise is to change the world for the better. The economy is to serve humanity and not humanity serving the economy. Hence, the activities of Obajana cement company's CSR to the people of Obajana, Kogi state will impact positively to the people and the host community at large.

The contribution of industry to local and national economy in all facets is not in doubt as it is one of the key drivers of economic growth and development. The impact of industrial activities is felt in a variety of ways. The presence of industries in any community most especially large scale industries such as textile, automobile, cement confer external benefits in the area of employment generation, infrastructure provision and boost in the residents' social-economic status, population upsurge, expansion of local market, increased demand for accommodation, vibrant real property development and consequently increase in property value. In terms of land use, while these industries may produce goods and services that are beneficial to a segment of the population, the property values of others may diminish (ling and Archer, 2005). This leads us to the principle of Corporate Social Responsibility (CSR) which is also referred to as corporate conscience, corporate citizenship or corporate social opportunity. CSR is described as an attempt at instilling discipline and the integration of self regulation into business principles and ethics of Multi-National Corporations (MNCs). It functions basically as a build –in self regulating mechanism whereby business organizations monitor and ensure active compliance with the spirit of the law, ethical standard and international norms (Ojo, 2013).

In Nigeria the quest for formalized CSR practices started during the military administration of the 1990s as typified by Shell Nig. Plc- Ogoni imbroglio to the sudden realization that one cannot continue to take so much without the restoration of a little. According to Ikein (1990), CSR

focused business would promote the public growth and development as well as voluntarily eliminating sharp practices that can harm the public interest regardless of legality.

Most of the Multi National and locally owned companies in Nigeria have failed to measure up to the standard of international norms and ethics of the corporate social responsibility. The give and take approach of the companies to their host communities is far from what is obtainable in the Europe and other developed countries where standard is insisted on. It has been alleged that business practices are destroying life on earth and are responsible directly or indirectly for the most dramatic human impact on the ecosystem.

2.2.2 Infrastructural development

Countries develop their industrial sectors because of many reasons. Industries have more backward and forward linkages to other sector of the economy. The industrialization of Europe and other countries of the world has lead to infrastructural development. No country in the world can develop infrastructurally without industrialization. Industries are important to developing countries like Nigeria not only because their marginal revenue product of labour are higher than the marginal product of labour in agriculture sector but because it helps in improving infrastructure

Cement and other giant manufacturing industries in the world are known for their infrastructural development. For example, Winmore *et al, (2012*), carried out a study on Sino-Zimbabwe (a cement company) and its socio-economic impact on Hozhri (host community). Their findings show that prior to the establishment of the company, the community had no access road. However, the company has constructed an all weathered road to access the community. The company has built a block of classrooms as well as supplying them with water.

Murtala (2011) conducted a research on the socio-economic impact of oil sand extraction in Nigerian oil rich Niger-delta. The findings of his study reveals that the extraction of this mineral has lead to the improvement of infrastructural facilities such as roads, electricity, health facilities, educational facilities recreational facilities and pipe borne water into many communities in the region especially Ondo state. However, Harley (2007) noted that cement manufacturing companies bring economic benefits in form of employment and markets for locals.

2.2.3 Mineral Resources Exploitation

Mineral resources are the naturally occurring valuable assets of any nation which need to be protected and sustainably used with the aim of satisfying short term need for mineral materials and long term goals with the aim of satisfying short term need for mineral materials and the long term goals of social and economic development (Garba, 2007). Mineral resources are natural minerals in solid, liquid and gaseous forms located under the ground including those at the disposal of mineral industry, or for present or future exploitation and use.

When a nation discovers a mine or mineral with an accumulation of mineral resources which is widely or partly of economic value, such fields are targeted for mineral exploitation.

Mineral exploitation has been defined by Garba (1988), to essentially involve the combination of methods, techniques and skills to locate, delineate and characterize ore or mineral-deposits preparatory to commercial exploitation. He further said that this usually involves the application of geology, geochemistry and geophysics and begins on a regional (reconnaissance) scale and narrows-down with success to a detailed investigation (which may include drilling and putting) in a smaller area.

Garba (2007), defined mineral exploitation as the act of extracting a mineral resource from a mine with the aim of producing mineral materials. Mineral in their existing form in ground water, mineral water and hot water can all be mined in order to meet different needs and uses.

A mineral is a solid inorganic substance formed by geological processes. There are about 3,000 known minerals and new discoveries occur frequently. Minerals have been of importance to humans for thousands of years. Wars have been fought over access to coveted minerals is a popular hobby, as they can be beautiful and have interesting physical properties (Miranda, 2009). Mineral exploitation has supported the social and economic development of many developed countries. In developing countries, it will continue to provide technological development employment and income to many people.

Mineral occurrences in Nigeria were only partially extracted by local natures before the advent of colonialism. In that period there were records of iron, tin and bronze smelting to make rudimentary weapons, implements and ornaments and the use of other minerals as cosmetic preparation. Colonialism came with strong drive for raw materials including minerals, and that was the time when mineral deposit in Nigeria witnessed massive and widespread commercial exploitation (Garba, 1988). According to Afeni, *et al*(2008), large-scale mineral exploitation has contributed to over 90% of all the foreign exchange earnings, 60% of Gross National Product, 50% of the of total government revenue and 30% of total employment in some southern African countries. Similarly, small-scale mineral exploitation provides a source of livelihood for those in rural and semi-urban Africa.

Mineral resources of any nation if properly extracted will enhance or boost the Gross National Product of such country.

2.2.4. Social Impacts of Mineral Exploitation

Social impact is defined as the process of assessing the social consequences that are likely to arise after the development of any project for example mineral exploitation or any other activity. It also include the cultural consequences to human populations of any private or public actions that after the ways in which people live, work, play, relate to one another as members of the society. It can also be regarded as an integral part of environmental impact assessment (Afeni, *et al,* 2008).

The impact of mineral exploration are felt as seen at a many levels including employment, government revenue, population, health, the environment, education, culture and life in general. These impacts can be both positive and negative.

2.2.4.1 *Positive impact*

Positive impact of mineral exploitation on the host community includes the following: in terms of employment, extractive industries create several forms of employment opportunities such as, direct jobs, permanent or temporary, indirect position in the form of services offered to the industry by private operators, the creation and implementation of other services, which can be either formal or informal, the establishment of infrastructures and administrations accompanying the industry (PAVFJ, 2009). For this reason, there exists the migration of thousand of foreign and also local employees to the area occupied by a mine.

New extractive industries are accompanied by the construction of school infrastructure. Generally, schools built are modern and well equipped. Although in majority of cases, extractive industries help only during the first few years of their presence, taking care of certain expenses such as financing basic educational projects, they over such schools to the community. In fact this

initial construction is welcome because most rural communities especially in developing societies are resource poor to establish schools by themselves.

2.2.4.2 *Negative impact*

The negative impacts of mineral exploitation are numerous and some of these are examined. Establishing extractive industries is often accompanied by a high concentration of the other populations of diverse background. People with entirely different cultures beliefs, traditions, habits and customs are forced to share local resources of an erstwhile homogenous society. Generally, certain trends develop in areas where extractive industries set up. These include prostitution an increased number of bars and brothels, higher juvenile delinquency, theft violence and other unwanted social consequences, along with higher housing cost and the high general cost of living (PAVFJ, 2009).

The exploitation of mineral is generally accompanied with particular health hazard for example, the extraction of limestone is associated with dust which triggers or worsens conditions such as lung disease and infections like cough, catarrh and so on. In rare occasions, minig companies set up health centers for local residents, in most cases these centers are poorly equipped and offer the minimum of service. In contrast, inside that company's hospital will be a range of technical equipment that would scarcely look out of place in modern western facility. (PAVFJ, 2009).

When the need arises, populations are displaced and evicted without adequate compensation. Equally, in the majority of cases, local populations are not informed until the last minute of company's arrival, when contracts and authorization procedures would have been concluded without their knowledge. In a short time prior to a company setting up locally, these populations will be offered new sites of resettlement. Compensation for their homes, field and pasture et

cetera. So, at the risk of losing everything, local populations are sometimes forced to accept these proposals. Generally, promises made to populations are not kept in full. Example are schools, homes, drinking water, health facilities, means while areas designated for cultivation are not replaced. This may upset the social balance of the local community. Mass resettlement can also result which can lead to the spread of disease and increase in the price of local goods and services (Afeni, *et al* 2008). The displacement and resettlement of populations remain a major headache when extractive industries set up.

There is no doubt that mineral exploration if properly coordinated can have positive socio-economic impact on the people of the producing area.

2.2.5 Factors of Industrial Location

It has been argued that industrialization as a process has certain characteristics and repeatable features, wherever it has taken place or it is going on. For the process of industrialization to exist in a place, certain conditions are prerequisite. These conditions can be considered as factors of industrialization. Some of these factors are examined in further detail:

One of the condition is transportation this include but not limited to infrastructure like pipeline, airway, highway and railway facilities, trucking service and water way from one point to another. Efficient transportation network helps to reduce costs and makes the movement of material easier (Sergeant. 2001).

A large and cheap labour force is required for production in manufacturing industries. Labour can be either skilled or unskilled. High-technology industries have to locate where suitable skilled marketers are available. Some attributes of labour such as attitude of workers, managerial prudency, skillfulness, wage rates, dependability of labour, availability of male and female labour,

cost of living and water stability are all important conditions that determine industrialization (Sergeant, 2001).

An important condition for industrialization is the availability of raw materials nearness to component parts, availability of storage facilities for raw material and components. The factory needs to be sited close to the raw material if they are heavy and bulky to transport. Location of supplier or freight cost are all important. WBCSD (2005), reports that cement facilities can cover areas of land ranging from hundreds to thousands of hectares and are usually located the deposits of raw materials.

An accessible place to sell the product is essential for many industries like those that produce bulky, heavy goods that are expensive to transport, those that produce perishable or fragile goods and those that provides services to people. The market is not so important for other industries such as high-tech whose products are light in weight and cheap to transport. Such industries are said to be footloose.

Government make some important decision on the location of industries and they include building ordinances, zoning codes, compensation laws, insurance laws, safety inspections, nuisance and stream pollution laws and other policies. These decisions are taken by national governments to protect their countries economy. Industries that locate in depressed areas may receive financial incentives from the government and assistance from politico-economic and transnational organization in the form of low rent and rates.

CHAPTER THREE: THE STUDY AREA AND METHODOLOGY

3.1 THE STUDY AREA

3.1.1 Location and Size

Obajana is located between Latitudes 6°24′N - 7° 34′N Longitudes 7°49′E - 8°59′E of the Greenwich meridian. On the relative location, Obajana is about 220Km from Abuja, the Nigeria Federal Capital Territory, 43Km to Lokoja, 49Km to Okene and 40Km to Kabba. Geographically, it is located southwest of Abuja (See Fig. 3.1).

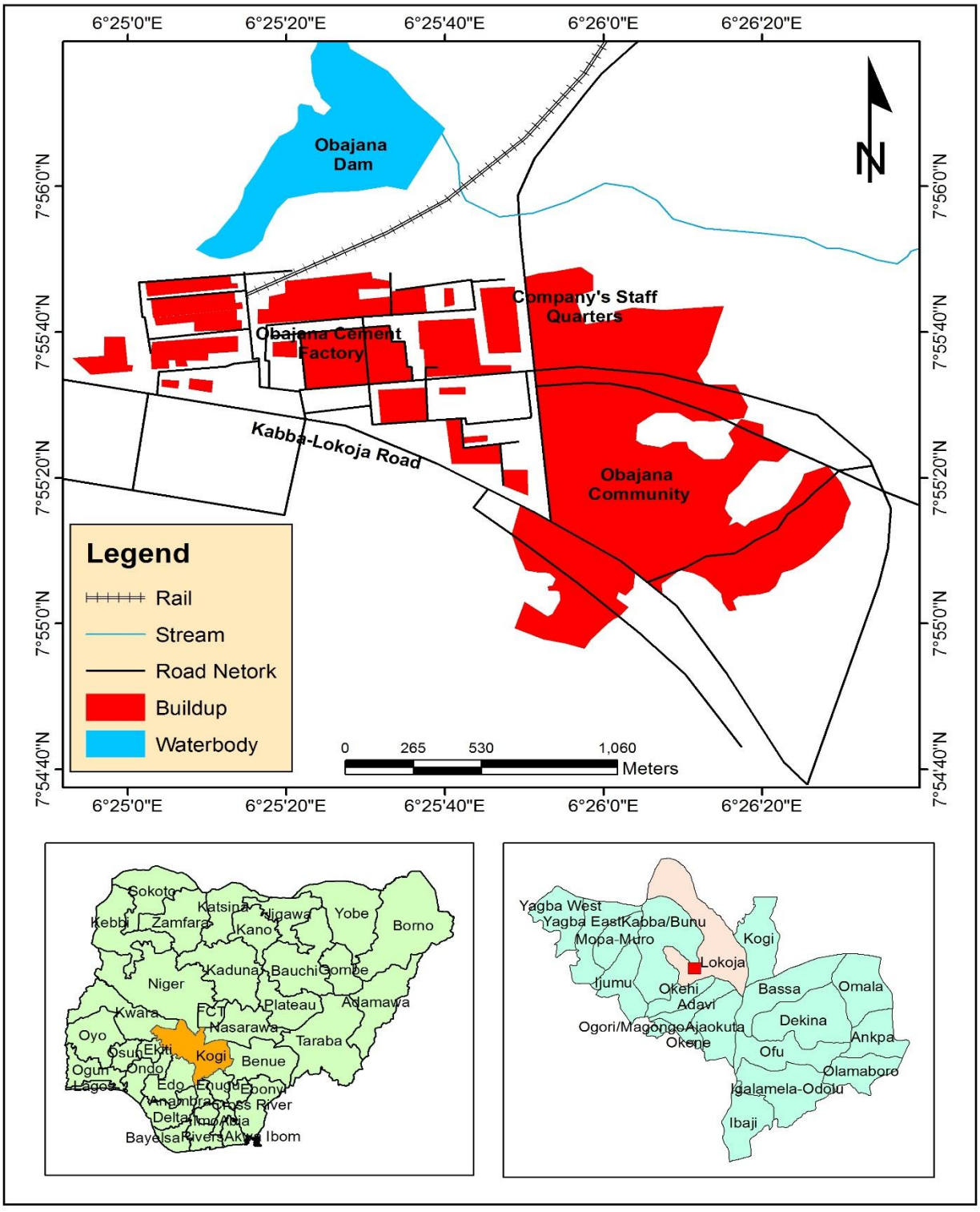


Figure 3.1: Map of Obajana (The Study Area)

Source: Google Earth Image, 2015.

3.1.2 Geology

The study area is underlain by basement complex rocks, predominantly composed of folded gneisses and metal sediments. The rock type found in the area includes: schist, pegmatite, quartzite, limestone, granite and granulites. An overburden of 2m and 8m thickness of soil overlies the limestone. The area is characterized by two types of Landforms, domed shaped residual hills and river valleys (Afeni *et al,* 2008). It was as a result of the high concentration of limestone which is the raw material for manufacturing cement that gave room for the establishment of Obajana cement factory. The study area has an estimated limestone deposit of about 450,000,000 tones with a depth of between 30 and 60 metres OCP (2005).

3.1.3 Relief and drainage

The Obajana area is defined by hills in form of ridges tending in a North-South direction. The terrain is very rugged and comprise of quartzite ridges rising as high as 100 meters above the lowlands. The area is mainly by River Mimi and River Oinyi. River Mimi and its tributaries discharge into the River Niger. It's a semi- seasonal river flowing during the rainy season and some parts of the dry season but ceases to flow at the peak of the dry season. River Oinyi which is a tributary of the River Niger to the west, drains the dam area of Obajana. The Oiyin River is semi-perennial with portion of it seasonal in nature (ephemeral), flowing only after rains. The smaller streams and drainage lines that dissect the hills are water barren-barren during the dry seasons. The surface water of Obajana is used for domestic, agriculture and industrial purposes Busuyi, *et al* (2008)

3.1.4 Climate

Obajana like has an average maximum temperature of 33^0 C and average minimum temperature of 22.8^0 C. it is generally hot throughout the year. The area experiences both wet and dry season. The mean annual rainfall for the study area ranges from 1,100 to 1,320mm. Rainfall lasts from May to October with dry season occurring in between. The prevailing wind direction for the month of June/July and December/January is south to southwesterly and northesterly respectively (Busuyi, *et al,* 2008). The weather condition is conducive for human habitation hence, the location of the industry.

3.1.5 Soils

A careful analysis of the soils of Obajana, shows that the soils found in the area are friable and slightly acidic to slightly alkaline with mean PH of 5.82. The organic matter content ranges from 1.14% to 2.35% and total Nitrogen (N) of 0.06-0.14%. The organic matter content of the top soil varied from 0.69% to 4.21% The heavy metals contents are relatively normal for soils except lead and iron which appear high. The soils are generally very productive and farmers do not need to add fertilizers to obtain good crop yields. The soil types in the area ranges from sand to loam with the sand fraction varying from 68.3-95%. The percentage sand content generally decreased with depth at any particular point while the percentage silt content varied from 2.3 – 20.7% and clay content varied from 2.3- 20.0% (OCP, 2005).

3.1.6 Vegetation

There are several plant species in the area which comprises of high savanna woodland vegetation but stem girth-measurement are small, timber-sizes trees decrease as one moves north-west, the plant species also consist of mixed planted leguminous crop such as melon and groundnut. Tree

crops like cocoa, coffee and cashew are also found but not in a commercial quantity. Root crops such as yam, cassava and cereals for example rice maize, guinea corn, beni-seed and so on can be found in the study area. The climate and vegetation favours agriculture inhabitant is farming (Muhammed, 2006). More than 50% of the number of economic plants varies and they include their uses as fuel, timber, dye's vegetables, edible fruits and seed trees, medicinal and religions plants sponge (Afeni *et al,* 2008).

3.1.7 Historical Development of Obajana Cement Factory

Obajana Cement Plc (OCP) was incorporated by the Kogi State government in 1992. It was however acquired by Dangote Industries Limited in 2002 and commenced the construction of the first cement production plant in 2004. The company`s name was changed from Obajana Cement Plc to Dangote Cement Plc in July 2010. Dangote Industries Ltd (DIL) owns 99.14% of the issued shares of the company. The cement plant was a green field cement plant initiated in 2003 and commissioned in 2007 with an annual capacity of 5 million tones (Vetiva, 2010).

The OCP project was estimated at a cost of $798 million, partly financed by equity and debt. The project cost also included a $72 million power plant loan granted by the project sponsor-Dangote Industries Limited. In addition to this, Dangote Industries Limited made 40% equity contribution, amounting to $319.1 million; the $406.7 balance was obtained as debt from a number of international financial institutions as well as local banks. Apart from gypsum which is imported, other raw materials and natural additives- limestone, clay, marl and laterite are found in the Obajana mines. The Obajana mines have an average depth of 30m to 60m, an estimated limestone deposit of 450 million tones and approximate life of 75 years. The mine and quarry are located at an approximate distance of 9Km to the plant, hence an 8.5km conveyor belt moves crushed

limestone to the cement plant. For power generation, the cement plant is equipped with a 135 MW capacity power plant which can utilize gas or diesel. The plant also has gas supply from Ajaokuta with the 90km long gas pipe line which has a has a capacity to deliver 96,000 cu.m/h. The Obajana cement plant operations are fully automated and are monitored from a central control room, allowing very limited human interference. The OCP uses the most modern and energy efficient kiln technology, the pre-calciner rotary kiln, which is more energy efficient than the conventional dry furnace process. After the crushed limestone is conveyed to the cement plant, the next step in the operation is cement production and subsequently the process of packaging for onward distribution (Vetiva, 2010).

3.1.8 People, Population and Culture

The inhabitants of Obajana are Oworos who claimed to originate from the Yorubaland. There are also Fulani and other tribe like Hausas, Tiv, Igbo and Bassa etc. in the study area, but they are non-indigenes. Oworo language is the major means of communication. Other languages spoken in the area includes Hausa, Yoruba, Fulfulde (Fulani), English, Igbo and Tiv (Advisory Review, 2008).

Musa and Kpanache (2014), in their study, put the population of Obajana at 6325. In another report forwarded by OCP(2005) indicates that males are well over 50% of the population. This is because more men have migrated to the study area than the women.

The Obajana people have a rich culture embedded in the deity system, language, religion songs, music, festivals, values etc. In Obajana, about 50% of the native population is Muslim and the other half Christians. most indigenes whether Muslim or Christians still have residuals of traditional African beliefs. There is true respect for the aged as it is believed that they are in tune

with the spirit world. Obajana is governed by an Oba, assisted by a council of chiefs. Their major roles and responsibilities are to maintain peace and order, resolving conflicts, observing cultural festivals, organizing community development work, allocating farm lands to migrant farmers. They are kept informed about the local land being used by indigenes so that he can adjudicate in case of conflicts. A land committee has been in place since the year 2003 to oversee and regulate sale of land to non-indigenes who may want to build to take advantage of the citing of the Cement company. In the community there are youth and women leaders who represent their respective constituencies at the village council meetings.

3.1.9 Economic Activities

The Occupation of the people include cattle rearing and petty trading. The agricultural system in the area is majorly an intensive small holder rain-fed agricultural system. This system is characterized by small plot farm (0.5-2ha) growing mostly rice, sweet potatoes, maize, millet, pepper, cassava and cowpea. Since the only source of water is the river Oinyi which dries up during the dry season there is generally no irrigation farming in the study area (Muhammed, 2006). However, the establishment of the cement factory has made a lot of residents of Obajana and migrants to move away slightly from the traditional agricultural system to other more profitable economic activities such as working in the factory as well as within the community. Some people have acquired skills like carpentry, welding, building etc and they are now shop owners.

As a result of the newly commissioned line, the company is expected to generate 3,000 additional jobs. This obviously has made Obajana one of the fastest growing rural communities in Africa (The Blueprint, 2012). The town has many establishments like the Lokoja LGA Tax Office,

Dangote cement factory, Zenith Bank, Access Bank, Guarantee Trust Bank, Skye Bank, Finbank, First Bank, Ecobank, Diamond Bank, Mainstreet Bank, FCMB Bank, Keystone Bank, UBA, Fidelity Bank, Hotels, Restaurants, Canteens, Trailer park, and outlet shops where daily sales are carried out.

3.1.10 Infrastructural Facilities

In terms of health care facilities, there is a government owned Primary Health Care (PHC) facility and about five private clinics in Obajana. There are also chemists and patent medicine stores in the study area. However, many people who cannot afford orthodox drugs patronize traditional medicine men. Obajana is assessed by a grade-A tarred Federal road which passes through the community from Lokoja to Kabba and Ilorin. There are also footpaths that link Obajana to other neighboring villages.

The community has a government primary and a secondary schools. There are also about six private nursery and primary and four private secondary school in the study area. Obajana community depends on a public borehole and several privately owned boreholes as well as locally dugged wells that meet the domestic water need of the people. In terms of energy, Obajana has electricity as powered by the Power Holding Company of Nigeria Field Survey (2015).

3.2 METHODOLOGY

3.2.1 Reconnaissance Survey

A reconnaissance survey of the study area was carried out, which enabled the researcher to get himself acquainted and familiarized with the area and this served as a preliminary assessment visit to the Obajana community and its surrounding villages

3.2.2 Types of Data used

In order to achieve the set objectives of this study, information were collected from respondents in the area. The data required for this study include information on:-

I. Socio-economic and demographic characteristics of the respondents such as sex, age, marital status, household size, level of education and occupation, income, religion, ethnicity, accommodation type etc
II. The social impact of the Obajana cement factory
III. The economic impact of the cement factory
IV. Factors responsible for the location of th cement factory
V. The impact of Obajana cement factory on infrastructural development

3.2.3 Sources of Data

Primary and secondary sources of data were used in this research work to collect data.

3.2.3.1 *Primary sources*

This research adopted questionnaire survey, and interview schedules on the field. The questionnaire is a sample device for obtaining the required information from the respondents on questions relevant to the research. The contents of the questionnaire ranges from personal such as; gender, age, educational status, occupation, income, health status etc, to the specific like; socio-economic impacts. Focus Group Discussions (FGDs) were also employed to get more information from the residents on the challenges and benefits they derived from the establishment of the Cement Factory.

3.2.3.2 *Secondary sources*

Information on social and economic development, industrialization, income and standard of living, infrastructural development as well as factors responsible for siting a cement factory were gotten from secondary sources. This secondary source of data were obtained from existing official and unofficial records in both national and international journals, articles, websites, past thesis, Publications, textbooks as well as news papers publications etc.

3.3 Sampling Size and Sampling Technique

According to Musa and Kpanache (2014), the population of Obajana was 6325. Krejcie and Morgan (1970) method of sample determination was used to determine the sample size through a well structured questionnaire. This stipulates that for any population within the range of 6000-6999, the sample size should be 361 with standard error of 0.05. Therefore, since the population of the study area fell into this class, a total of 361 respondents in Obajana were sampled.

The sample frame that was employed in this research involved the categories which included all household heads residents in the settlements within the scope of the area. The houses were first of all numbered starting from the community's head house.

Obajana by all criteria is a town under Oworo district in Lokoja Local Government Area of Kogi State. The sample elements were selected among the residents by systematic sampling. The settlement is more of a cluster without organized streets. The access road to the community divided it into two halves. The study area was systematically divided into 8 quarters using the existing streets and roads. Starting from the street that housed the king's palace, the houses were marked one after every other house. The selection of the target population started from the community head's house from which point one household in every other household within the

vicinity of the area were selected. Questionnaire were administered to each of household head selected but in a situation where the head is no more alive or was not available as the time of administration, the woman or the most senior person in that household was interviewed.

3.3.1 Data Analysis

In achieving the above listed objectives, questionnaires were distributed to the residents of Obajana.

Objective (i) examined the factors responsible for the establishment of the cement factory. In analyzing this, descriptive statistics such as charts and tables were used

Objective (ii) analyzed the social impact of Obajana Cement Factory to the people of Obajana. It was achieved through the use principal component analysis and tables.

Objective (iii) examined the economic impact of Obajana Cement Factory to the people of Obajana. In achieving this, tables, charts and likert scale were used to.

Objective (iv) assessed the impact of Obajana of Obajana cement factory on the infrastructural development of Obajana community. In achieving this objective, tables, charts, and likert scale were also used

SPSS and Excel were used to run the analysis.

CHAPTER FOUR: DATA PRESENTATION AND RESULT

4.1 SOCIO-ECONOMIC AND DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

4.1.1 Sex, Age and Marital status

Table 4.1 shows the distribution of respondents by age, sex and by marital status. It was observed that 72.0% of the respondents were male while female accounted for 28%. Men's dominance could be due to the fact that heads of households were targeted and besides, in most of the African societies, women are not allowed to make decisions or comment on the issues involving their families. This argument is justified by Decker (1993) view that in the African culture, men normally communicate on behalf of their families. However, since the factory is sited in this community, the dominance of men will also not be unconnected with the fact that most employed and job seekers who are non indigenes who came to Obajana without their families.

As indicated in Table 4.1, majority of the respondents are of the age range 30-34 years which accounted for 21.6% and closely followed by those of the age range of 35-39 years with a total of 21.3%, while 11.4% and 0.9% represent those of the age ranges of 25-29 years and 15-19 years respectively. The data shows that the population of Obajana is of productive age both in terms of human reproduction and that of economic production. The pull factor exercised by an urban center is beginning to set in hence, the migration of young and working class population.

Table 4.1: Sex, Age and Marital status of the Respondents

Sex	Frequency	Percentage
Male	260	72.0
Female	101	28.0
Total	361	**100.0**
Age (years)		
15-19	3	0.9
20-24	20	5.5
25-29	41	11.4
30-34	78	21.6
35-39	77	21.3
40-44	72	19.9
45-49	32	8.9
50-54	14	3.9
55-59	14	3.9
60-64	6	1.7
65 above	4	1.1
Total	361	**100.0**
Marital Status		
Single	66	18.3
Married	253	70.1
Divorced	19	5.3
Widowed	16	4.4
Separated	7	1.9
Total	361	**100.0**

Source: Field Survey, 2015

The result as shown in Table 4.1 also reveals that 70.1% of the respondents are married while 18.3% and 1.9% represents respondents that are still single and separated respectively. The data portrays that many of the respondents have stayed there for long or migrated with their spouses to the Obajana community while the singles are either younger persons from the community or job seekers as well as workers who migrated to the area in the recent times.

4.1.2 Religion

Figure 4.1 reveals that the study area has a dominance of Christians as it accounted for 66% of the respondents while 29% and 4% represented those that are of Islam and traditional religion class respectively in.

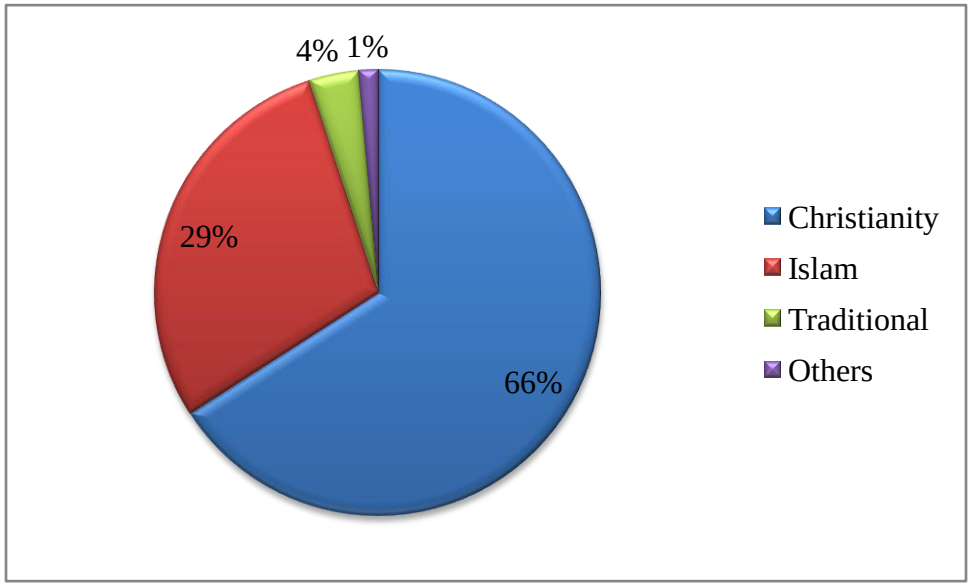


Figure 4.1: Distribution of Respondents according to Religion
Source: Field Survey, 2015

This is an indication that more Christians are migrating to the Obajana community than the Muslims as against the Opportunities Industralisation Centre International, OICI (2005) report which puts the population of both the Christians and Muslims at 50% each.

4.1.3 Ethnicity

Figure 4.2 shows that the dominant ethnic group in the community is Yoruba, accounting for 35.5% of the respondents. This is because the original indigenes of Obajana are the Oworos who are of the Yoruba speaking part of Kogi State while 13.6% and 13.3% are for Ebiras and Northern minorities respectively.

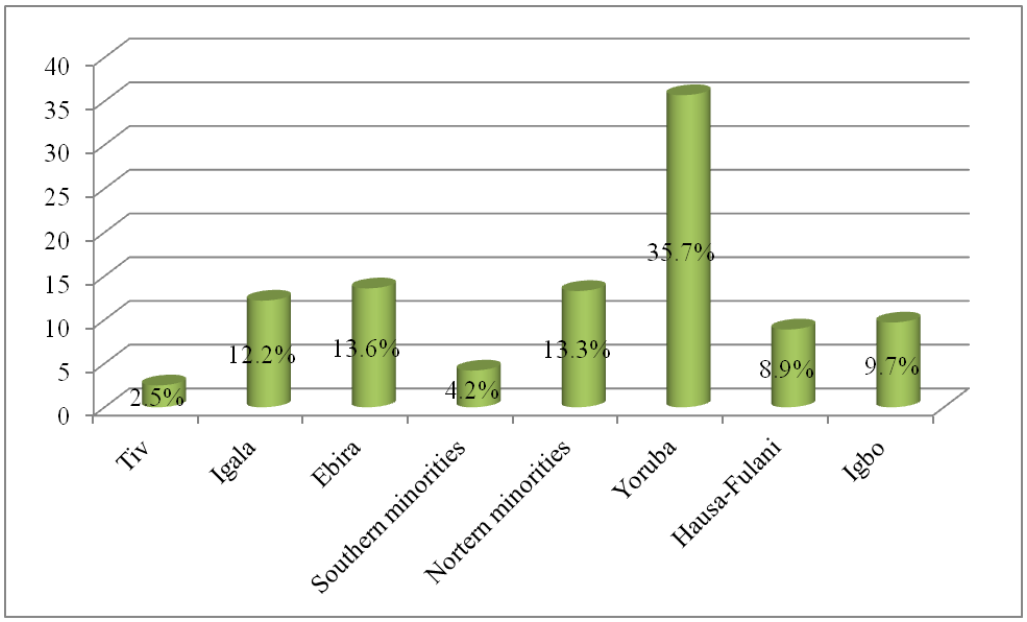


Figure 4.2: Ethnicity of Respondents
Source: Field Survey, 2015

The Igala tribe accounted for about 12.2%, Igbo have 9.7%, Hausa-Fulani are 8.9%, Southern Minorities are 4.2% and Tiv are 2.5%. Apart from the Oworo Yorubas who are the land owners (Busuyi, *et al*, 2008), other tribes are migrants who came to settle in Obajana as a result of its rich agricultural soils or the Obajana cement factory. However, the Tiv, Ebira and Igala ethnic groups are part of the Northern minorities but they are treated as entities because many of them migrated to the study area long before the emergence of the factory to farm or hunt. As a result of their long stay in the study area, their populations have grown overtime. Hence, they are more populated in the area than other northern minority tribes.

4.1.4 Education, Occupation and Income

Table 4.2 shows the distribution of the respondents based on education, occupation and income. It reveals that 48.8% had secondary education, while 19.4% and 18.8% had post secondary and

primary education respectively. However, 10.5% of the respondents had no formal education while only 2.5% had Koranic education.

Table 4.2: Education, Occupation and Income of Respondents

Educational Qualification	Frequency	Percentage
Primary	68	18.8
Secondary	176	48.8
Post secondary	70	19.4
Koranic	9	2.5
No formal education	38	10.5
Total	**361**	**100.0**
Occupation		
Faming	120	33.2
Petty Trading	96	26.6
Civil Service	31	8.6
Company staff	77	21.3
Artisan	20	5.5
Housewife	10	2.8
Others	7	2.0
Total	**361**	**100.0**
Weekly Income		
Less than ₦5,000	91	25.2
₦ 5000- ₦10,000	123	34.1
₦11,000-₦15,000	78	21.6
₦16,000-₦20,000	41	11.4
Above ₦20,000	28	7.8
Total	**361**	**100.0**

Source: Field Survey, 2015

From the table one can deduce that the low level of post secondary educational status could contribute to why the indigenes are not getting good jobs with the factory rather than labourers and other menial jobs and people come from far with quality education and required experience to pick up juicy jobs in their domain. Education is very important to the future of the individual beneficiary and the society at large. According to the World Bank (1988) without education, development will not occur.

The Table (4.2) also shows that majority of the respondents are farmers as they account for 33.2% while 26.6% are petty traders. The company workers amounted to 21.3% and 8.6% are civil servants. This is concurred to Obajana Cement Plc (2005) study which indicated that the primary occupation of the Obajana people is predominantly farming. However, this cannot be unconnected to the establishment of the Obajana Cement factory which has diverted the attention of the people away from their traditional occupation which is farming to being engaged in other activities in and around the factory. One of the most widely used indices of socio-economic status in demographic analysis is occupational level, as it is expected to play significant roles in socio-economic development.

Occupation is a regular activity performed for payment that occupies one's time. It can also be referred to as the activity which one regularly devotes oneself, especially one's regular work, or means of getting a living (Wickleby, 1992).

The weekly income of the respondents in Table 4.2 reveals that majority (34.1%) earn in the range of ₦5, 000- ₦10, 000 as weekly income while 25.2% and 21.6% earn less than ₦5, 000 and ₦11, 000-₦15, 000 respectively. Only 7.8% earn above ₦20, 000 as their weekly income as indicated in the table. The result indicated that the income of some the people is still below the minimum wage of ₦18,000 per month standard. This agrees with Busuyi, *el al*(2008) findings in a quarry at Obajana, which stated that only 7% earn above ₦40,000 while about 51% earn less than ₦20,000 monthly. No wonder a youth in one of the Focus Group Discussion lamented on his income status.

> *"As for me, the Obajana cement factory has not improved my economic status in any way. As a graduate, I have remained jobless in this community for the past 4years, mean while, others come from far places to get*

*jobs in this factory. Yes, they come to our own land to get employed and we the indigenes are not getting jobs. I only depend on my farm to survive in this village instead of being gainfully employed in this company. It's unfair" (*A youth discussant, Obajana 28th sept, 2015)

4.1.5 Type of Accommodation

Figure4.3 portrays the respondents' types of accommodation. It shows that majority (59%) of the residents of the community live is compound houses while 29% accounted for those living in two rooms' apartments. It was also observed that 8% live in flat apartments while only 2% live in duplex apartments.

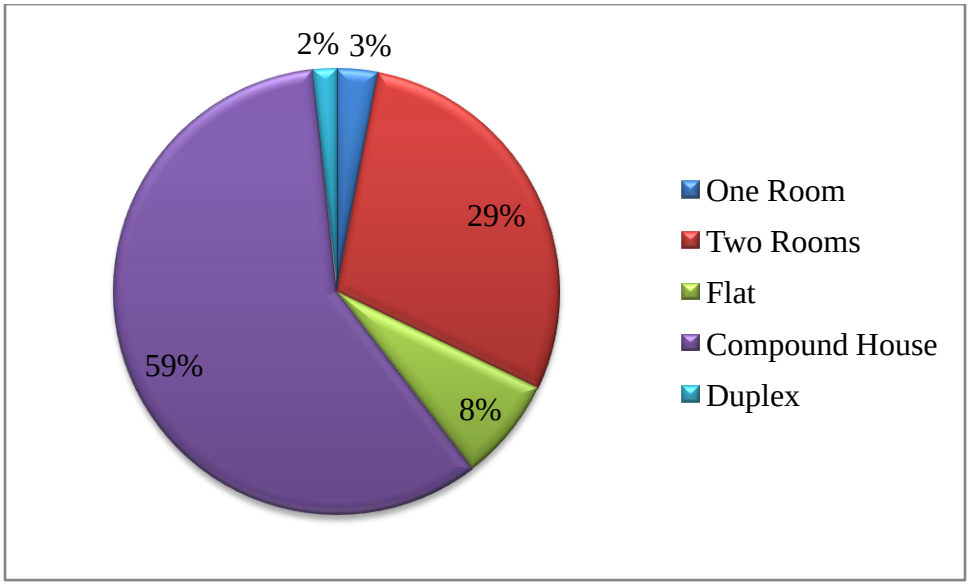


Figure 4.3: Accommodation Type the Respondents
Source: Field Survey, 2015

The result negates Busuyi et al (2008) assertion which says that the population of Obajana prior to the establishment of the cement plant was about 400 and the residential houses mostly made of mud and raffia palms were barely up to 20. All Africa Global Media (2008) claimed that the story of Obajana has changed and the community had an estimated population of about 5000 and not

less than 500 residential houses. From the chat above, one can infer that there are more houses now than before the coming of the factory.

4.1.6 Household size

The household size of the respondents as shown in Table 4.3 revealed that 55.4% had 4-6 people, followed by 1-3 which accounted for 26.9% while 17.7% represented those with above 6 members. However, the present situation in Obajana as regards to occupancy ratio of households can be said to be average since the mean household size is 4.76

Table 4.3: Household Size of the Respondents

Household size	Frequency	Percentage
1-3	97	26.9
4-6	200	55.4
Above 6	64	17.7
Total	**361**	**100.0**

Source: Field Survey, 2015

From this result, the researcher can infer that about 82.3% have stayed in Obajana community for fewer years than those whose household size is below 6.This category of people are either indigenes or migrants who have come to settle in Obajana community or younger couples who are indigenes. Those with the occupancy ratio of over 6 persons are about 17.7%.This category of respondents are older settlers or indigenes of Obajana village. This finding concurred with the work of Kpanachi and Musa (2014) in Obajana which puts the occupancy ratio of those over 6 persons per household at 22% and between 1 and 6 to be 78%.

4.1.7 Ownership of Accommodation and Cost of Rent

The accommodation ownership as indicated in Table 4.4 shows that majority of the community residents live in rented accommodation as it accounts for 42.7%, while 24.4% and 20.8% live in personal houses and family houses respectively and 12.1% of the live in either relative, official or friends accommodations.

Table 4.4: Accommodation Ownership and Cost of Rent of Respondents

Ownership of Accommodation	Frequency	Percentage
Personal	88	24.4
Family House	75	20.8
Relative	21	5.8
Rented	154	42.7
Friend	6	1.7
Official	17	4.7
Total	**361**	**100.0**
Cost of Rent per Annum(₦)		
5,000-9,000	13	3.6
10,000-14,000	58	16.1
15,000-19,000	8	2.2
20,000-24,000	24	6.6
25,000-29,000	8	2.2
30,000-34,000	5	1.4
35,000-39,000	7	1.9
40,000 above	28	7.8
No Rent	210	58.2
Total	**361**	**100.0**

Source: Field Survey, 2015

Table 4.4 also reveals that majority of the residents (38.4.0%) in rented apartments pays rents in the ranges of ₦10, 000-₦14, 000 annually while 15.9% pays annual rents in the ranges of₦20, 000-₦24, 000 as 18.5% and 3.3% represents those that pay rent within the ranges of above ₦ 40, 000 and ₦25, 000 - ₦29, 000 respectively, while 58.2% do not pay rent. It shows that the town is just a developing one compare to Lokoja the capital of Kogi State where ordinary single room is

as high as ₦100,000 per annum depending on the location of the accommodation. However, about 58.2% are not paying rent probably because they have been living in that community long before the establishment of the factory or they are new in the community to search for job or do menial jobs hence, squatting.

4.1.8 Length of Stay in Obajana Community

Figure 4.4 indicates the length of stay of respondents in the study area. It reveals that majority of the respondents 67.6% have lived in this community for 11 years and beyond, while respondents that have lived in Obajana within the ranges of 5-6 years and 3-4 years accounted for 9.4% and 8.3% respectively and only 7.5% of the respondents have lived here for 9-10 years.

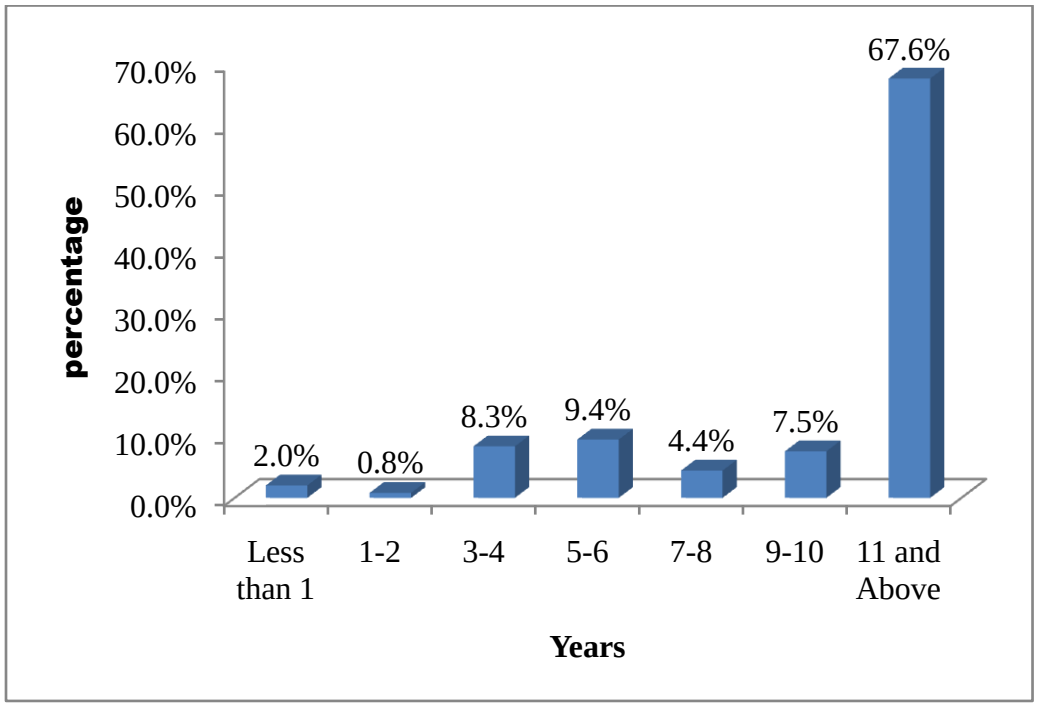


Figure 4.4: Percentage Distribution of Respondents according to Length of Stay
Source: Field Survey, 2015

This shows that more than 67% of the respondents have either stayed in Obajana before the establishment of the factory or born there while the remaining 33.3% are either migrants who

came to work in the factory, do business in the area or farm in the community. To attest to this fact, a male discussant who is over 60 years has this to say.

> *"we have been in this village long before the coming of this dangote company. Some of us were born here while others came to this place as children. As at that time, everywhere is bush and farmland. So our major aim of coming here was to farm because we have very fertile land here for agriculture." (*A male discussant, Obajana 29th sept, 2015)

This is also in line with the report of IOCI, (2005) in a research conducted on Obajana which states that Obajana village has been in existence for eighty years.

4.2 FACTORS RESPONSIBLE FOR THE ESTABLISHMENT OF THE FACTORY

4.2.1 Factors responsible for sitting the factory in Obajana

Table 4.5 portrays the factors that are responsible for the sitting of the factory at Obajana community and not in any of the neighboring villages. It shows that the major factor responsible for the siting of the factory in the location is the availability of limestone with 87.3% of the respondents attesting to this fact, while 3.9% of the respondents are of the opinion that the availability of high population or availability of flat land are responsible for the choice of location of the factory respectively and 3.3% says social amenities is an important factor that inform the siting of the factory in its location.

Table 4.5: Distribution of Respondents on the Factors Responsible for Sitting the Factory in Obajana

Factor Responsible of Siting the Factory	Frequency	Percentage
Availability of Limestone	315	87.3
Flat land	14	3.9
Availability of water	3	.8
Cheap labour	3	.8
Social Amenities	12	3.3
High population	14	3.9
Total	**361**	**100.0**

Source: Field Survey, 2015

It is obvious from the findings that majority of the respondents are of the view that cement making mineral availability is responsible for the sitting of the factory at Obajana. Abbott (2003) considers among others availability of natural resources as a key positive factor for stimulating industrialization. The findings also agree with the response from most of the respondents interviewed during Focus Group Discussion, as stated by a youth discussant:

> *''The Obajana cement factory was sited in this community because we have plenty of limestone which is the main cement producing mineral. Apart from that, this community has a flatland and water that is needed by the factory .in all our clan, Obajana has more population and it is even closer to where the limestone is deposited than all our neibouring communities. Therefore, there is no way Obajana cement factory could have been sitted elsewhere in this our area''.* (Male discussant,Obajana, 28th sept, 2015)

4.3 SOCIAL IMPACT OF THE FACTORY

Principal Component Analysis (PCA) statistical technique was employed in the analysis of the social impact of the establishment of the cement factory on the people. It attempted to explain the set of the social impacts in terms of smaller number of dimensions out of the total number of impacts analyzed as shown in Tables 4.6 and Figure 4.6

Table 4.6: Total Variance of the Social Impacts Explained using Principal Component Analysis

Component	Initial Eigen values			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
X1	5.434	38.817	38.817	5.434	38.817	38.817
X2	2.966	21.185	60.002	2.966	21.185	60.002
X3	2.934	20.956	80.958	2.934	20.956	80.958
X4	1.505	10.749	91.707	1.505	10.749	91.707
X5	.433	3.091	94.798			
X6	.290	2.074	96.871			
X7	.228	1.630	98.501			
X8	.125	.892	99.393			
X9	.059	.423	99.817			
X10	.023	.165	99.982			
X11	.002	.013	99.994			
X12	.001	.006	100.000			
X13	4.009E-015	2.864E-014	100.000			
X14	-3.969E-015	-2.835E-014	100.000			

Source: Field Survey, 2015

***Note**

X1 loss of social contact
X2 Improved Infrastructure such as roads
X3 Improved social Amenities such as schools
X4 Improved Water supply
X5 Improved Electricity supply
X6 Equipped Hospitals
X7 Scholarships to indigenes
X8 Migrants coming to settle in the area
X9 Increase in social vices
X10 Land disputes
XII Alteration of culture and lifestyle of the people
X12 Displacement of original land owners
X13 Disruption of livelihood as a result of loss of resources
X14 Social tensions due to population increase

4.3.1 Total Variance of the Social Impacts Explained

An examination of Table 4.6 indicates that the percentage of the total variance accounted for by the principal component analysis shows four components with Eigen values greater than 1. The total variance explained indicates that component one showed an Eigen value of 5.434 accounting

for 38.8% of the total variance explained by the analysis. Similarly, component 2 reveals an eigenvalue of 2.966 thereby accounting for 21.2% while component 3 had 2.934 as eigenvalue explaining 20.9% of the total variance. Also component four has an eigen value of 1.505 explaining 10.7% of the total variance. This component loading provides a clear indication of the socio impacts of the cement factory on the community that have been reduced to four components. The cumulative Percentage of variance reveals that the 4 components alone account for 91.7%. In other words, this was the proportion of the total variation explained by these four components.

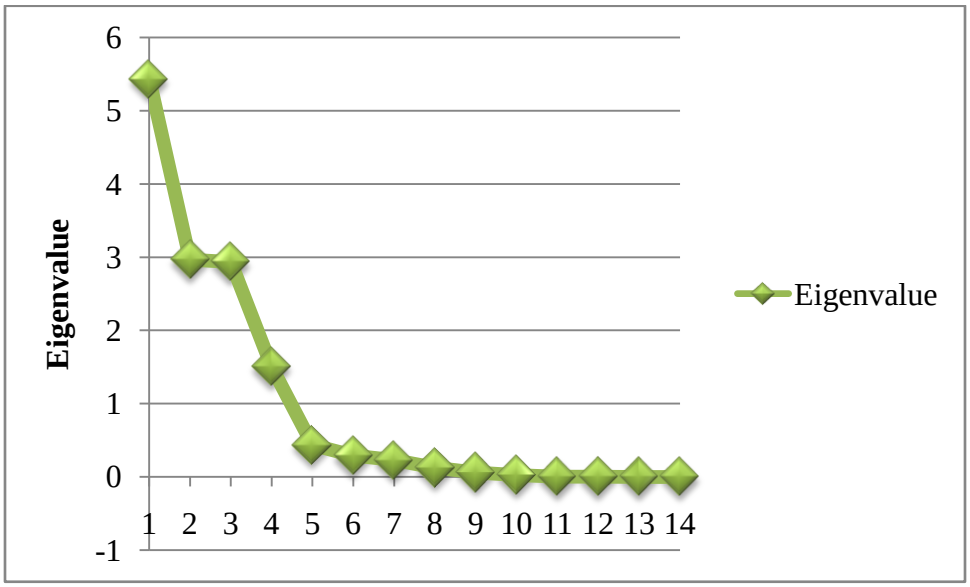


Figure 4.5: Distribution of Component Loadings
Source: Field work, 2015

In order to identify the manner in which this unexplained variation was distributed among the different social impact variables, a scree plot was employed to depict the loadings as shown in Figure 4.6. This plot demonstrates the distribution of the variance among the components graphically. The 'elbow' shape of the curve indicates that higher order components contribute a decreasing amount of additional variance with a marked decrease in the second and fourth

components. This implies that the socio impacts of the cement factory can be summarized by the first four components

4.3.2 Rotated Component Matrix of the Social Impact

Table 4.7 shows the rotated component matrix. A careful examination of Table 4.7 shows that some social impacts variables positively loaded on several components like improvement in electricity supply, increase in social vices as well as social tension due to population increase in

Table 4.7: Rotated Component Matrix of the Social impact

Social Impact	Component			
	1	2	3	4
Loss of social contact	.020	-.623	-.663	-.008
Improved Infrastructure such as roads	.969	-.041	.030	-.199
Improved Social Amenity such as school	.293	-.599	.662	-.145
Improved Water supply	.072	.082	-.913	-.095
Improved Electricity supply	.235	.169	.112	.903
Equipped Hospitals	-.349	.846	-.168	-.122
Scholarship to indigenes	.626	.363	-.090	-.661
Migrants coming to settle in the area	-.391	-.014	.708	.497
Increase Social vices	.911	.100	.006	.278
Land Disputes	.758	-.528	-.211	-.060
Alteration of Culture and lifestyle of the people	-.824	.474	.121	-.181
Displacement of Original land owners	.190	.930	-.033	.013
Disruption of livelihood as a result of loss of resources	-.514	.753	-.054	.350
Social Tension due to population increase	.037	.676	.510	.514

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
Source: Field Survey, 2015

the community as a result of the establishment of the cement factory. Although, scholarships to indigenes as in components 1 and 2 appear to be the most important social impacts of the cement factory in the community. The finding agrees with the response of one of the respondents interviewed during FGD, who stated that:

> *‘’ the company has been giving scholarships to our indigenous students. They normally pay N30,000 to secondary and N50,000 to higher institution students. However, the money is given to qualified students once in their academic careers. This means that the money (scholarship) is just for one year’’.* (a youth discussant ,Obajana, 28th sept, 2015)

4.4 ECONOMIC IMPACT OF THE FACTORY

4.4.1 Occupation of Respondents Before and After the Establishment of the Factory

Figure 4.7, shows the occupation of respondents before and after the establishment of the factory. The majority of the respondents before the establishment of the cement factory were farmers which accounted for 53.2%. However, after the cement factory establishment, the population of the people who are engaged in farming dropped to 33.2%. Petty trading which accounted for 38.5% before the coming of the cement factory also dropped to 26.6% after the advent of the company. It was also observed from the table that about (1.3% have now picked up appointment with the company as staff after the cement factory has been established. Artisans which accounted for 5.5% sprigged up after the coming of the factory from no single artisan. The percentage of full time house wives also reduced from 3.9% before to 2.8% after the it was established. This is a clear indication that the coming of the cement factory has resulted into change of occupation of the people in the study area.

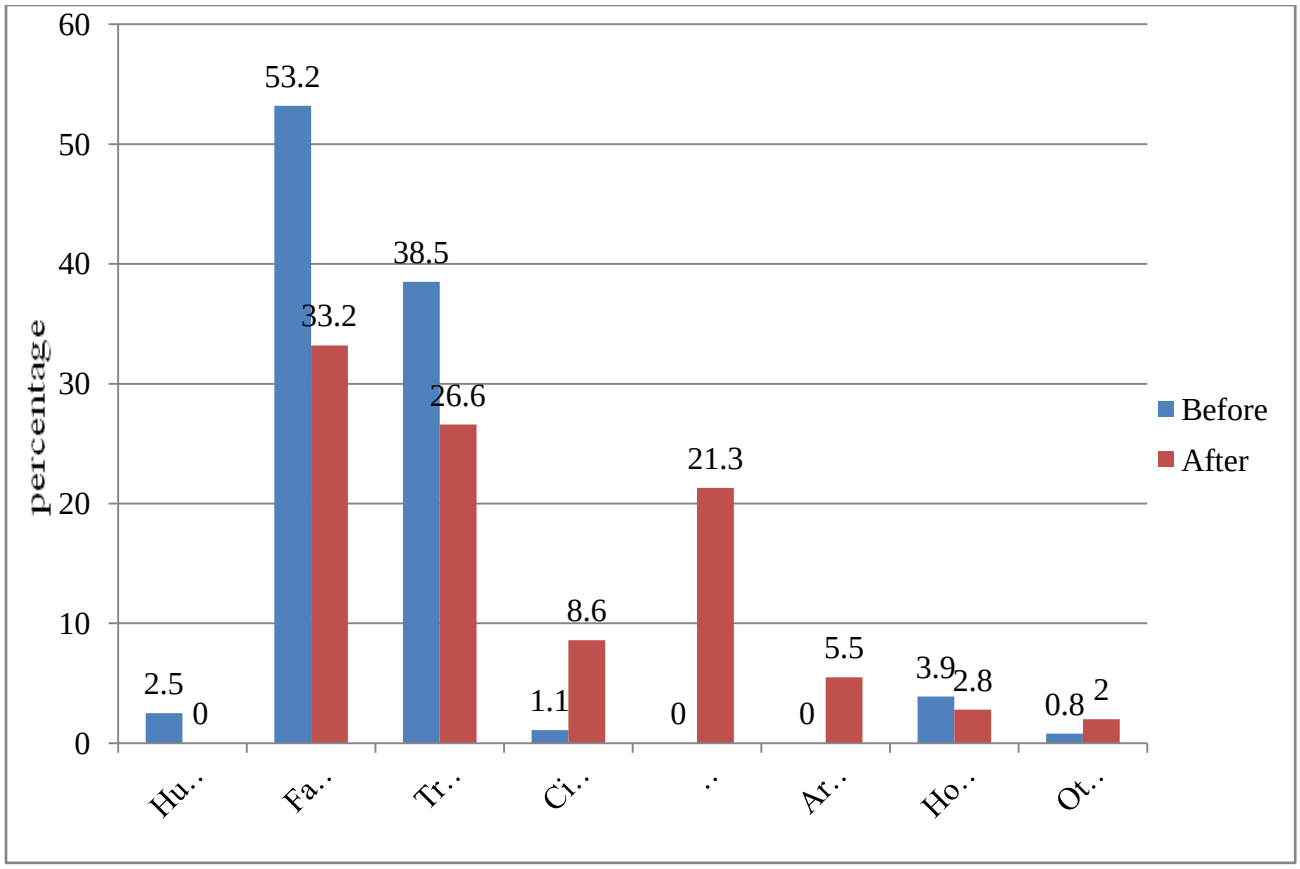


Figure 4:6 Respondents Occupation Before and After the Establishment of the Factory

Source: Field Survey, 2015

This indicates that as the factory came in, many people dropped their traditional practices of farming and hunting for other activities. This concurred with an answer given during a focus group discussion by a female discussant:

> *''before the establishment of this company, almost everybody here was a farmer. People come to this our community just to farm. Even those that were petty trader were still farming. But today, our people are no longer interested in farming because of laziness and instant money making. Since the coming of this Obajana cement factory, our youth prefer to wake up and go to the factory to do daily work and collect money instantly''.*
> (Female discussant, Obajana, 30th sept, 2015)

4.4.2 Perception of the Economic Impact of the Obajana cement factory

Table 4.8 reveals the economic impacts of the Obajana cement factory as perceived by the people of the area. About 93.9% of the respondents agreed that the siting of the factory has improved their incomes and only 5.3% disagreed to this fact while 0.8% were undecided. It was also observed from the table that the majority (91.4%) agreed that the presence of the factory in the community has improved the standard of living in the community, as only 5.5% disagreed, while 3% were still undecided. The table also shows that the factory has also increased the market for agricultural produce in the community as 93.3% attest to this fact, while a meager 6.7% disagreed.

Table 4.8: Perception of the Economic Impact of Obajana Cement factory

	SA		A		UD		DA		SDA	
	N	%	N	%	N	%	N	%	N	%
Improved Income	273	75.6	66	18.3	3	.8	9	2.5	10	2.8
Improved standard of living	214	59.3	116	32.1	11	3.0	13	3.6	7	1.9
Increased market for Agricultural produce	231	64.0	106	29.4	-	-	14	3.9	10	2.8
Loss of Communal Farmland	129	35.7	28	7.8	74	20.5	128	35.5	2	.6
Job creation and employment	276	76.5	52	14.4	8	2.2	9	2.5	16	4.4
Establishment of more businesses as a result of the influx of people	203	56.2	128	35.5	12	3.3	10	2.8	8	2.2
Increase in property value	22	6.1	314	87	-	-	13	3.6	12	3.3

Source: Field Survey, 2015

***note**

SA -------- Strongly Agreed

A -------- Agreed

UD ------- Undecided

DA ------- Disagreed

SDA ------- Strongly Disagreed

The table also reveals that the presence of the factory has resulted in loss of communal farmland as 43.5% agreed to this, while 36.1% disagreed that the presence of the factory as resulted in loss of communal farmland and 20.5% of the respondents were undecided. Observed also from the table is that 90.9% agreed that the presence of the factory has resulted in job creation and employment in the community. The table also shows that there have been establishment of more businesses in the community due to the population growth as a result of the presence of the factory as 91.7% agreed to this fact while 5% and 3.3% accounted for respondents that disagreed and who were undecided respectively. In the same vein, the table further reveals that the presence of the factory in the community has also resulted in increase in property value as 93.1% agreed while only 6.9% of the respondents accounted for those that disagreed. This result corresponds with the answer these discussants gave during the FGD when asked if the establishment of the factory has impacted on the residents economically.

> *''before the coming of the company, we normally transport our farm produce to either Lokoja or Kabba for sale but now, we sell almost everything here at home or in our market. Agricultural produce are now expensive. More people are now into farming''.* (a youth discussant ,Obajana, 28th sept, 2015)

Another youth has this to say on the same question.

> *''The establishment of this cement factory has improved on my economic status because my father is employed in the company and once he is paid, he gives all of us at home pocket money. Before, he was a full time farmer and he hardly gives anyone money''.* (Male discussant, Obajana, 28th sept, 2015)

4.4.3 Weekly Income Before and After the Cement Factory

Table 4.9 describes the income of the respondents before and after the factory was established. This shows that the mean weekly income of the respondents before the advent of the factory was

₦2320.78 ($11.67) while ₦10297.78 ($51.75) was after. The dollar equivalent is pegged at ₦199 to $1

Table 4.9: Weekly Income Before and After the Cement Factory

Weekly income	Minimum	Maximum	Mean	Std. Deviation
Income Before (₦)	2000	5000	2320.78	695.749
Income After (₦)	5000	22000	10297.78	5197.686

Source: Field Survey, 2015

This implies that the establishment of the cement factory has a positive impact on the income level of the people in the study area.

4.5 INFRASTRUCTURAL FACILITIES IN OBAJANA COMMUNITY

4.5.1 Amenities Before and After the Establishment of the Cement Factory

Figure 4.8 indicates the amenities in the study area before and after the establishment of the factory. It showed that 83.3% of the healthcare facilities were provided after the establishment of the cement factory as against 16.7% before. For educational facilities, 92.9% and 7.1% were for after and before the factory establishment respectively.

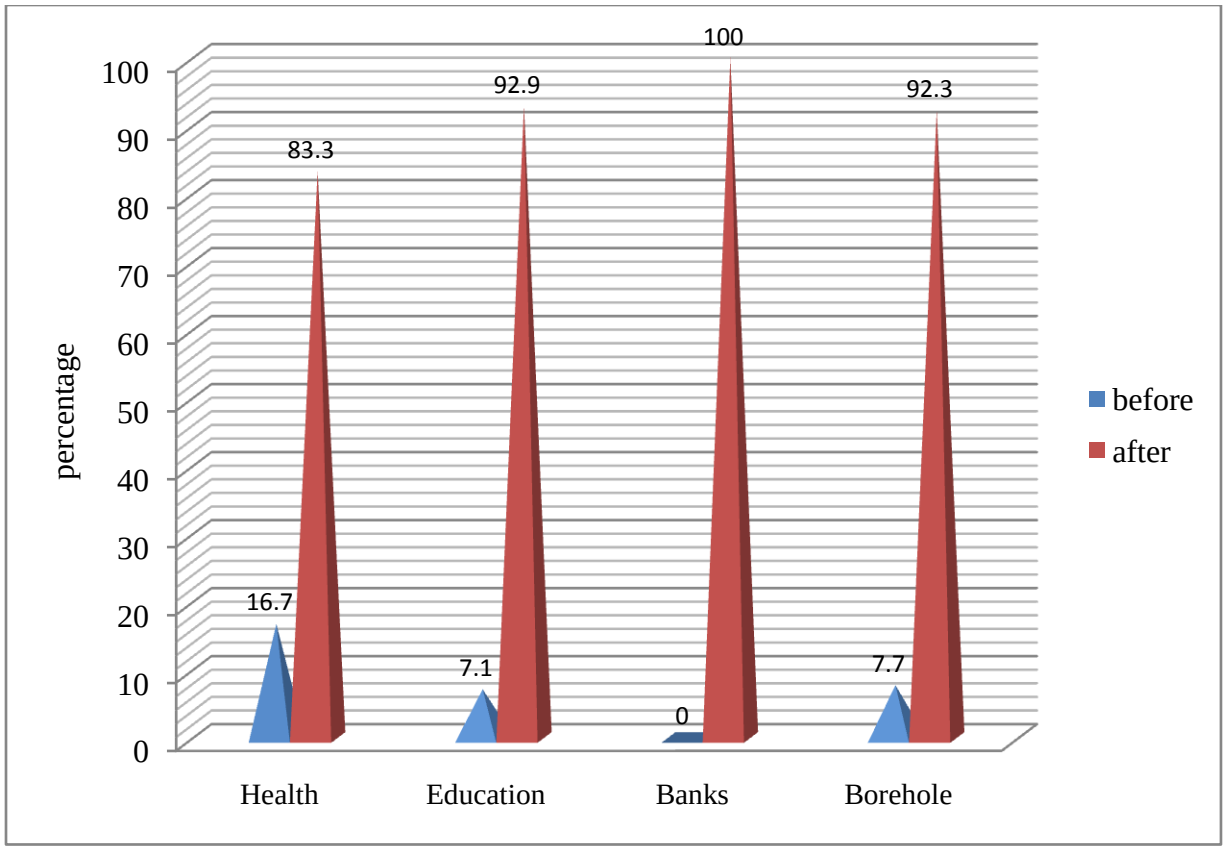


Figure 4.7: Amenities before and after the establishment of the Cement Factory

Source: Field Survey, 2015

All the commercial banks in the study area came after the cement factory. Regarding borehole facilities, 92.3% were constructed after the factory was established while 7.7% accounted for before the factory. This implied that there is an improvement in social infrastructure after the factory was established.

4.5.2 Road Type Before and After the Establishment of the Obajana Cement Factory

Based on the information gotten from Information Guide in Nigeria (2015), A-3kilometer dual carriage way was constructed by the Obajana Cement Factory to bypass the Obajana community to the factory. However, prior to the establishment of the factory, there was no any road bypassing the community to any direction. Meanwhile, there was an access roads before the arrival of the

factory into the area as it is the major road linking Kogi to Kwara and some of the other Yoruba states. According to Soft USvisa (2015) the distance between Lokoja and Kabba via Obajana is 107km. The road was constructed in the 1970s. This concurred with the revelation given by a youth discussant

> *''Before the coming of the company, this road was like this. Some people call it express road while some people call it high way however, villagers often refers to it as tarred road depending on the exposure or the education of the villager. the only thing that change is the number of vehicles that ply on the road after the company was built. This is the road that leads to kabba, Ilorin and other places from Lokoja''.* (a youth discussant, Obajana, 28th sept, 2015)

On the road facility, a youth during the FGD has this to say in agreement to the respondents.

> *''the company has not really done well in terms of infrastructural development in this community. This our main road was constructed by the federal government long before the establishment of the company. The road link Kogi state to Kwara state and Dangote's trucks are spoiling it without maintenance. The only road they (Obajana cement company) constructed is one that bypass the Obajana township to his factory. However, this road is already damaged by their company's long vehicle. This road is only plied by his vehicles and any other vehicle is not allowed to ply on the road''.* (a youth discussant, Obajana, 28th Sept, 2015)

In the same vein, another discussant has this to say on road infrastructure

> *''there is another road that passes through this village to another community in Niger state and we also use the road to go to our farms. The road is untarred and cannot be plied during rainy season by vehicle. Although they used to sand fill the road or grade it to a distance once in a while. In fact, it is a semi footpath''.* (Female discussant, 30th September, 2015)

4.5.3 Presence of Electricity before the Arrival of the Cement Factory

Figure 4.9 reveals that the larger part of the community's respondents (97%) had no electricity

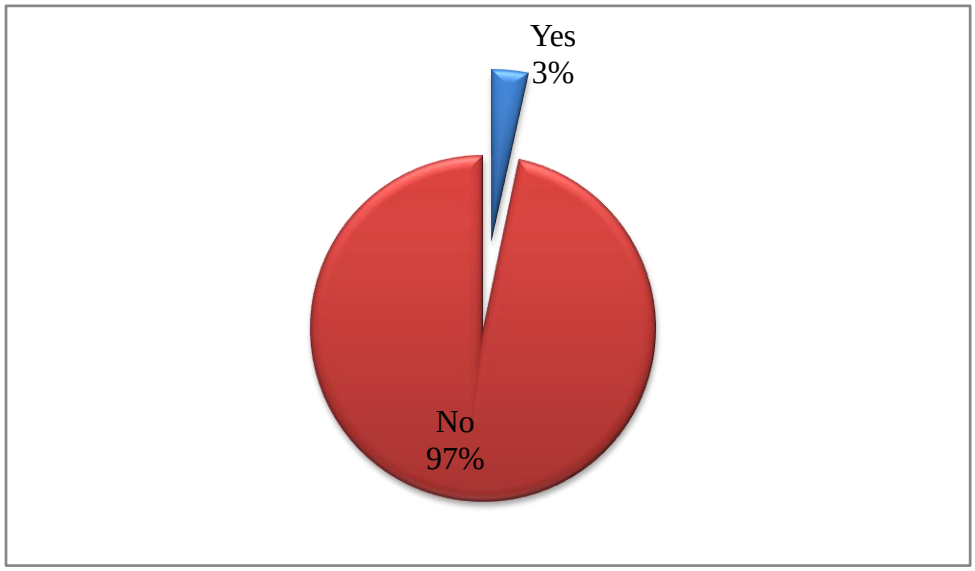


Figure 4.8: Presence of Electricity before the Arrival of the Factory

Source: Field Survey, 2015

power supply while only 3% of the respondents had access to a source of electricity power supply in the community. Here it can be infererd that the establishment of the factory came with the benefit of power supply to the area.

4.5.4 Sources of Power before and after the establishment of the Cement Factory

Figure 4.10 shows the sources of power before and after the establishment of the cement factory. It reveals that most respondents 83.1% had no power supply. It means that they were either using lanterns, candles or other means such as oil lamps, kerosene lamps etc while 12.5% got power supply from their personal generators. However, only 4.4% got power supply from the community generator. It was also revealed from the respondents that the community major power supply source after the arrival of the factory was through the Power Holding Company of Nigeria

(PHCN). This was concurred to by 83.1%, while 3.3% and 1.7% accounted for the factory and community generator sources respectively. Also observed was the fact that 3.6% of the respondents said they use their personal generators probably because their houses are still new and are yet to connect to PHCN or was disconnected from it because they did not pay their bills.

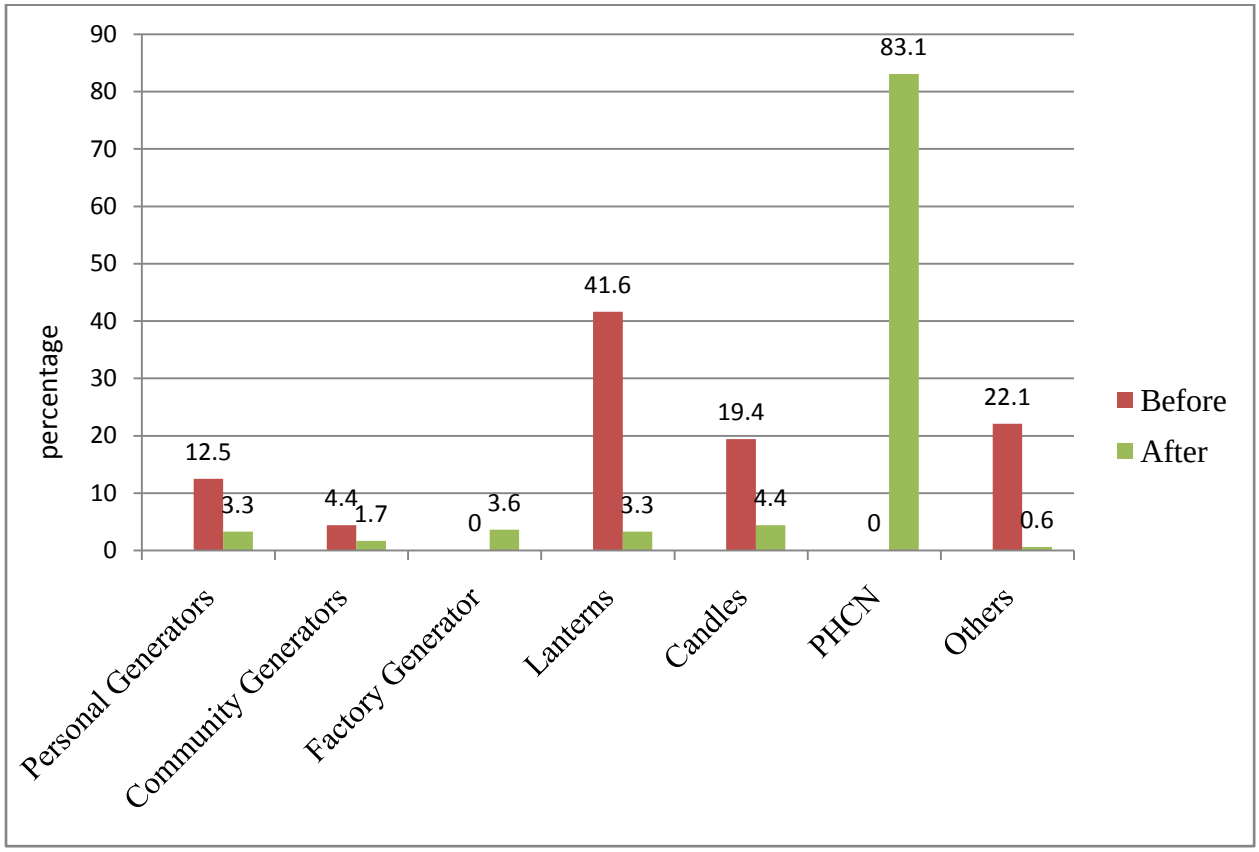


Figure 4.9: Respondents Sources of power before and after the establishment of the Factory
Source: Field Survey, 2015

About 3.3% agreed that they still use lanterns while 4.4% use candle as source of energy in their houses. A negligible 0.6% powered their houses through other means. Therefore, one can inferred that as a result of poverty, it is not everybody that have the financial strength to power his or her house with modern source of power like electricity. Finding here indicated that Obajana was a very small village but the company has made thousands of people to come and settle there. This

made it imperative for electricity to be connected to the community as agreed by a discussant during FGD

> *''Despite that he is not doing well for us, our village people will forever be grateful to him because without Dangote, I don't think we would be having electricity till date. The company singlehandedly facilitated and sponsored the NEPA electricity project and today we have light. Although, he does not supply us power from his company generating plant.''.* (Aged male discussant, Obajana, 29th sept, 2015)

4.5.5 Facility Types and Providers

Table 4.10 shows the types of facilities and their providers. It reveals individuals are the major provider of educational facilities in the area, providing 85.7% while the government was responsible for just 14.3%. It was also observed that 85.7% of the health facilities in the community were provided by private bodies while government was able to provide only 16.7%. Government is the major provider of the roads as it accounted for 97.3% as against the 2.7% provided by the company.

Table 4.10: Facility Types and Providers according to respondents

Facilities	**School**		**Hospital**		**Road (km)**		**Borehole**		**Recreational/ sport centre**	
Provider	No	%	No	%	No	%	No	%	No	%
Community	-	-	-	-	-	-	-	-	1	16.7
Government	2	14.3	1	16.7	107	97.3	1	7.7	1	16.7
Company	-	-			3	2.7	1	7.7	-	
Individual/private	12	85.7	5	83.3	-	-	11	84.6	4	66.6
Total	**14**	**100**	**6**	**100**	**110**	**100**	**13**	**100**	**6**	**100**

Source: Field Survey, 2015

As indicated in Table 4.10, individuals were the major (84.6%) provider of water facilities in the community. Government and the company were responsible for 7.7 respectively. On the the provision of recreational/sports facilities, while individuals were responsible for 66.6%, the

community was responsible for 16.6%. The government also accounted for 16.6% of the provision of total recreation/ sport facilities in Obajana. On the providers of the facilities in Obajana, a middle aged man has this to say during the Focus Group Discussions.

> *''the major road that leads to the town was constructed by government while the one leading to the factory was constructed by the company. The government also built a primary and a secondary school while the rest are privately owned. The community, through contributions was able to build a town hall for the purpose of general and community meetings. In terms of power, Dangote in collaboration with government brought electricity to this community, although, many people have their own generators. Individuals constructed their own personal water sources like boreholes and wells although the government constructed a borehole for us around 2002 which later got spoilt but when Dangote came, he renovated it. As I speak to you now, the borehole has spoilt again. Concerning the health facility, the government has provided us with a primary health care centre. Dangote also has a clinic for his staff in the factory. There are also numerous privately owned clinics in the community ''* (Aged male discussant, Obajana, 29th sept, 2015)

CHAPTER FIVE: DISCUSSION

This section discusses the major findings of this study which are based on the specific objectives of the study. Cement is a basic construction ingredient. Its demand all over the world is very high due to extensive infrastructural development globally. In Africa, the persistent rise in the price of building materials and constant importation of cement has led to the speedy development of cement factories (Busuyi, *et al,* 2008). However, the production of cement is known to have both positive and negative impacts to the host community. An examination of the factors responsible for the establishment of the factory shows nearness to the raw materials. (WBCSD, 2005), reports that cement facilities can cover areas of land ranging from hundreds to thousands of hectares and are usually located close to the deposits of raw materials. (Assefa, Tesfahun and Fatuin, 2014) in their study at Mossebo Cement Factory, Ethiopia agreed that it was as a result the geological and the large deposit of limestone that prompted the location of the cement factory in the mossebo area of the country. In the same vein, (Fujo, 2014) in his research work came out with a summation that Yandev, Benue State has a large deposit reserve of limestone to a tune of about 70,000,000 tonnes and this is the reason Dangote cement was cited in the area. Ewekoro community also housed a large quantity of cement manufacturing materials and this responsible for the location of West African Portland Cement Company (WAPCO) now Ewekoro Cement at Ewekoro, Ogun State. Elsewhere in Okpella, Edo Stae, now BUA Cement was located in okpella as a result of the high volume of limestone in the area (ESEEDS, 2005). Limestone is the major component of cement manufacturing and there is a large deposit of this resource in Obajana. According to Vetiva (2010), Obajana mine has a depth of between 30 and 60m and an estimated limestone deposit of 450,000,000 tones and an approximate life of 75years. Respondents put it that the large concentration of limestone was responsible for the establishment Obajana cement

factory at Obajana, Kogi State. Limestone are heavy sedimentary materials which are needed to be transported to the factory for crushing and subsequently added to other cement making substances to produce packaged cement. Due to this heaviness of materials, the Obajana cement factory has to be sited close to Obajana where the raw material was discovered. Worldwide, cement factories and other manufacturing companies that are involved in the use of bulky and heavy raw materials like iron ore, limestone etc are often than not located close to the mining sites of the raw materials and this is to save the cost of transportation.

An analysis of the social impact of Obajana cement factory to the people of Obajana using the Principal Component Analysis (PCA) indicated that the cement factory has impacted on the people tremendously. The analysis also shows that the most important social impact was the award of scholarships to some of the indigenes and closely followed by the increase in social vices in the area as concurred by a wide percentage of the respondents. The analysis also reported that electricity provision as well as displacement of the original land owners also loaded positive in the (PCA). This was also a confirmation to Winmore *et al* (2012) study on Sino-Zimbabwe in Hozhri Zimbabwe which states that the cement company was responsible in awarding scholarships to excelling students. This actually shows that it is the responsibility of Obajana cement factory to improve the educational status as well as other social aspect of the people of the community.

Hilson (2002), study in a cement factory in Bangladesh stated that the adverse impacts in turn created social tension, disrupted family ties and community life and sometimes, economic inequalities as evidenced in Bangladesh where villagers were displaced from their Agricultural land which was their primary source of livelihood. This corresponds with the result gotten from the analysis of the social impact of the cement factory which indicated that there is social tension

increase as a result of the influx of people from different places into the area. Others according to the respondents included disruption of livelihood as a result of loss of resources, displacement of original land owners, alteration of culture and lifestyle of the people, land disputed as well as increase in social vices.

The examination of the economic impact of Obajana cement factory on the people of Obajana shows that the factory has impacted on the people economically. Modak and Biwas (1999) contends that employments must favour the local population, especially those affected by company's operations instead of importing labour. This negates the responses of the Obajana people who claimed they are not getting jobs but others are coming from their various places to pick up lucrative employment in the factory. However, the factory establishment has lead to the influx of people to the Obajana community thereby resulting to the creation of more jobs in the area. The jobs created by these businesses that came into the community has increased the income of the people and invariably improving their standards of living. Obajana cement factory needs to embark on peoples oriented developmental project that will help to improve the economic status of the people. Community development project funding was not a new phenomenon as Caspi Cement Plant in the Republic of Kazakhstan had projects aimed to improve the standard of living of the local communities (Abdulwahab, 2006).

It could be glaringly seen that one of the most significant impact of the exploitation is the migration of thousands of foreign and non local employees to the area occupied by the mine. This increase in population in turn create market for goods and services. Winmore, *et al*,(2012) in their research in a cement factory in Zimbabwe came out with a result that the cement factory establishment has succeeded in creating market for Agricultural product for the local population. In the same vein, the Obajana residents also agreed that the establishment of Obajana cement

factory has created market for their Agricultural produce. As a result of the migration of people from every part of the country into the area, the population of the Obajana community has increased thereby increasing the demand for goods and services. Therefore, residents hardly transport their produce to neighboring towns of Kabba and Lokoja as the market is enough to consume their produce.

The location of Obajana cement factory in Obajana community has facilitated the electrification of the community and this has opened the area to different businesses which has helped to improve the life of the residents economically. This corresponds to Akande and Idris (2005) assertion that infrastructural developments such as roads would ultimately trigger a wide range of business activities as the area becomes accessible. The company has been able to build a block of two classrooms for the community. This is in line with Winmore *et al*,(2012) on his study of a cement company in Zimbabwe which shows that Sino Zimbabwe has built a block of classrooms to alleviate the sufferings of the children who were attending school from the host community to a far distant school. Giant companies all over the world attract infrastructural development. Wealthy individuals in Obajana have been able to build private schools, private clinics and boreholes in the community.

CHAPTER SIX: SUMMARY, CONCLUSSION AND RECOMMENDATION

5.1 SUMMARY OF FINDINDS

The result of the demographic characteristics of the respondents in the study area shows that majority are within the ages of 30-34 and 35-39 years which accounted for 21.6 and 21.3%, compare with those less than 15-19 and above 65years with 0.9 and 1.1 percent respectively. This indicate that majority of the respondents are still within their active productive years. A majority of the respondents are male with 72% and female 28%respectively. This means that more men must have migrated to the study area as a result of the establishment of the factory. The result of the data analyzed on the ethnicity of the respondents shows that 35.7 percent of the respondents are the Yorubas and the Oworo tribe inclusive, while others are migrants from all over the county. It was also observed that 70.1% were married while 18.3% still single. Educationally, most of the respondents have been educated beyond primary levels. The result available from the data also shows that 66% are Christians while 29% are Muslims. Occupationally, 26.6% are engaged in business and trading and 24.1% are farmers.

The result on the income level indicated that 25.2% earn less than N20,000 per month. On household sizes, it was discovered that 26.9percent have a household size of between1-3 while 55.4% have a household sizes of 4-6 members.

Concerning the accommodation type of the respondents, it was observed that a majority of 59% live in compound houses as indicated in table 4.3. On the ownership of the accommodation, 42.7% rented their apartments and 24.4% said their house of residence belong to them. The result as shown in table 4.4 indicated that 58.2% pay no rent and 7.8% said they pay above 40 thousand

naira, annually while others pay less. From the available data, 67.6% of the respondents have stayed in Obajana community for 11 years while others have stayed for less.

The issue of the factors responsible for the location of the factory in Obajana community also came up for analysis and it was revealed that 87.3% believed that it was because of the availability of limestone in the area that prompted it.

The principal component analysis was used to determine the social impact of the factory on the Obajana community and residents. From the result, it was discovered that the most important social impact is the award of scholarships to indigenes and closely followed by increase in social vices, electrification of the community among others.

Occupationally, it was revealed that 52.6% and 38% were into farming and petty trading respectively before the establishment of the factory. After the coming of the factory, 24.1% are now into farming while 26.6% are into business/petty trading. On the perception of the respondents about the economic impacts of the cement factory, a majority of 93.9% claimed that the establishment of the factory has improved their income. The result also shows that 91.4% per have agreed that the factory establishment has improved their standard of living and 5.5 percent disagreed. It was also confirmed by 93.3 percent that the coming of the factory has created market for agricultural products in the community. However, 43.5% said they have lost their communal farm land to the factory. As a result of the establishment of the cement factory, job creation has been enhanced as confirmed by 90.9%. In the same vein, 91.2% also attest to the fact that the factory establishment has brought about the influx of people to the area, hence more businesses to the community. The property value has also increased because of the factory as believed by the majority of 93.1%.

On the income of respondents before and after the establishment of the cement factory at Obajana, it was shown that the mean weekly income of the respondents before was ₦2320.78 while ₦10297.78 was after. This trend implies that the establishment of the cement factory has a positive impact on the income level of the people in the study area.

An inventory of the infrastructural facilities in Obajana community before and after the establishment of the cement factory shows that there was only one Primary Health Care (PHC) facility before and after the establishment of the factory. There was no single private clinic before but now, there are about five privately owned clinic. Also, there was only one government primary school before but now, there is an additional one government secondary, four private secondary, eight private nursery and primary schools in the community. Obajana as a community had just one borehole before but now, it has about thirteen. Before the coming of Obajana cement factory, Obajana residents were going to either Kabba or Lokoja for their bank transactions but now, Obajana has ten different banks.

From the analysis, it was observed that 16% were using their personal generators to generate power, while others were using different sources such as lanterns, candles etc as there was no PHCN. However, after the factory's establishment, 83.3% now attributed their power supply to PHCN. This is an indication that the coming of the cement factory also brought about the establishment of electricity into the study area.

Respondents perception on the provider of the social and infrastructural facility in Obajana shows that 70.4% believed it was government that provided the access roads to the community, while the majority of 83.1% said educational facilities were provided by individuals. It was also perceived by 69.3% that private individuals provide health facilities in the community. In term of sources water, a majority of 79.3% said individuals provided it. On electricity supply, it was widely perceived that government was responsible for its provision as agreed by 54.3%.

Cement factories all over the world cannot just be established without certain factors. Hence, the sitting of such a magnitude of cement factory in Obajana community cannot be left out. From the findings of this study, it was discovered that the major factor that is responsible for the establishment of Obajana cement factory in Obajana, Kogi State was the availability of cement producing raw materials. However, there are other negligible factors which included the presence of water, flat land, labour amongst others in the area

The social impact of any cement manufacturing company worldwide cannot be over emphasized. From the analysis of the results, it was discovered that the most important social impact was the award of scholarships to indigenes yearly. Although, an FGD discussant said that the scholarships have stopped since 2013 despite that it was just for a year and not throughout the educational carrier of a beneficiary. Another finding from this study on the social impact of the cement factory included migration of people from all over the country to either work in the factory, do business in the community, or farm in the area. The influx of migrants into the area has brought about increase in social vices such as prostitution, robbery, theft, alcoholism, drug abuse just to mention but a few as found out by the study. It was also observed that the coming the factory has lead to the electrification of the community. The research also found out that there is social tension due to unprecedented influx of migrant into the area. The indigenes are scared of not being dominated by the migrants in terms of population and invariably claim their property. The finding of the study also indicate that as a result of conceding about 9km square community land to the company, there are disruptions of livelihood due to loss of resources and possible displacement from farmlands.

Manufacturing industries are known to have impacted their host communities economically. Before the coming of the factory, the weekly mean income was about 2320 naira but after the

establishment the mean weekly income rose to 10297 naira. This study confirmed that the establishment of the factory has improved on the income of the Obajana residents. As a result of the increase in the income level, the standard of living has improved. The findings of the study also revealed that there is increased market for agricultural produce. Agriculture has been the main stay of the community's economy especially before the establishment of the factory and the proceeds were used to be taken to the neighboring towns of Kabba and Lokoja for sale but today, the population has increased astronomically and those produce are no longer transported anywhere for sale but consumed locally by the residents.

The finding also shows that there was a loss of fertile agricultural land. The factory was sited on a flat water logged land that was used to cultivate rice and other grains before the arrival of the company. Today, the land is no more available for community usage as it has been taken over by the company. The research also found out that the factory has actually created jobs and employment both directly and indirectly to the people of Obajana. Therefore, the factory has improved their economic status. The research findings also indicate that it was not everybody in the community that was employed by the company. More businesses and services rendering organization came into existence as a result of the influx of people into the area, hence, the employment of indigenes and non-indigene into various capacities in such enterprises. It was observed from the findings that property such as lands, accommodations, houses etc have increased in prices in favour of the locals. From the above discussions, it quite obvious that the establishment of Obajana cement factory has impacted economically on the people.

It was gathered from the data analyzed that government was responsible for the construction the access road to the community. However, it was observed that the company also constructed a few kilometers road that bypassed the community to the factory. Despite that the residents of the

community are not allowed to use the road, it is still part of the community. The findings from the study also reveal that government and individuals are responsible for the provision of school in the community. Although, it was found out that the company has supported the government primary school at Obajana with a block of two classrooms. It is expected that a company of this magnitude will provide a world class health facility for its host community as part of its corporate social responsibility but the study found out that apart from a primary health care facility which was provided by the state government long before the coming of the giant cement industry, individuals are responsible for the provision of private health care facilities.

The research findings also indicated that there is no pipe borne water in the community. The only borehole provided by the company is no longer in working condition. As a result of this, the individuals have decided to sink boreholes in their private houses. The company facilitated the electrification of the community. Before the arrival of the cement factory, there was no electricity supply in Obajana and very few houses had generator sets as revealed by the study. The research findings also stated that despite that there are housing units build by the company, they are met for the workers of the company and not residents of the community. The individuals are responsible for the building of houses in the community.

5.2 CONCLUSION

Industrialization is a critical key to economic growth that calls for improvement in systems, technologies and processes that utilizes natural resources more effectively. Consequently, a high premium is placed on the development of the industrial sector of developed economies. Mineral exploration has supported the social and economic development of many developed countries For example, the uranium mining in Canada and iron ore extraction in Germany has helped the two

countries to develop infrastructurally as well as quality jobs creation invariably improving the countries standard of living.

Obajana community was a hamlet before the coming of the cement factory but its establishment has brought with it different people from all over the country to settle there. The settlement of these migrants has also increased the population of the community. Esther Boresup once said that the population increase in the world is rather an asset than a curse if properly utilized, As a result of this, different businesses have sprang out of the area thereby creating jobs for both migrants and indigene. The residents also made their living from their engagement in different profitable activities such as loading of cement trucks, brick laying, farming, building etc in both the factory and outside the factory. The population influx has also become a source of market for farmers who used to transport their agricultural produce elsewhere for sale. Prices of properties, accommodation, land, agricultural goods etc have increased. All these have improved the income of the people of Obajana thereby improving their standard of living. However, the population increase has also lead to increase in social vices such as robbery, theft, prostitution, alcoholism, drugs addiction into the community.

Obajana cement factory is a giant cement making industry that is expected to impact on its host community both socially and economically. However, if its activities are not properly checked, it will completely shy away from its corporate social responsibilities which is an obligation of the company to it host community. It is quite worrisome that a company of this magnitude cannot provide most of the basic infrastructural and social needs as expected to serve as part of its compensation for its host community. Obajana cement factory is a company that is needed to be check mated by the appropriate authority because of its neglect of Obajana community. In terms of infrastructure, the factory has done very badly. It was discovered that since its establishment, it

has only succeeded in making huge profit for itself apart from building a block of two classrooms, facilitating the electrification and a borehole which is no longer functioning for the community.

In conclusion, if the factory is made to think of its host community simultaneously with its profit making culture by government and other regulatory agencies, Obajana will be developed infrastucturally as well as socio-economically within a short period of time.

5.3 RECOMMENDATIONS

It is quite obvious that Obajana cement Factory has impacted on the socio-economic conditions of the community and its people either directly or indirectly. These impacts are either positive or negative to the Obajana community and its residents. In order to solve the socio-economic problems of the Obajana residents, the following recommendations should be considered.

1 The Obajana cement company should give an equal opportunity to both the qualified and semi-qualified indigenes and the non-indigenes in terms of the available employment. This will give every resident of Obajana community the opportunity to compete for a job in the factory without fear.

2 The Obajana cement factory should help in improving the educational status of it host community by awarding scholarships to a certain number excelling indigenous students annually. This scholarship should spin from secondary to tertiary institutions without delay of payment of bursaries and allowances. Once these students graduate, automatic employments should be given to them and it will help to close the gap between the indigenes and the migrant workers. This will give them an ample opportunity to hold managerial and other sensitive positions in the company just like others. However, it has been observed that the company has started awarding

scholarships skeletally. The company should make it a yearly affair as part of its corporate social responsibility and the Obajana community will have a sense of belonging.

3 The Obajana Cement Factory should undertake community development projects annually with more priority given to developmental projects that will have direct socio-economic impact on the host community and its residents for example, schools, roads, hospitals, portable drinking water, market etc. these projects should be decided by the community stake holders (community leaders and elders) and executed by the company.

4 The company should initiate a well monitored credit facility programme to the indigenes of Obajana. The credit facility should be in form of soft loans and incentives payable within a stipulated long period of time. This programme will help the qualified persons to go into profitable businesses instead of waiting for factory jobs and will help in diverting their attention away from the limited job opportunities. The socio-economic status of the Obajana residents will be busted if the programme is well articulated.

5 The company should establish an income generating venture such as agricultural farm, a shopping mall, cement selling shops etc and engage some of the indigenes. It is glaring that everybody cannot be gainfully employed in the cement factory. Therefore, if some of the idle youths are employed, it will improve their economic status.

6 As a result of the establishment of the factory in Obajana community, there has been an influx of migrant from far and near within and outside the country. This has in turn brought different kinds of people from different background and culture into the community thereby resulting to the emergence of social vices such as robbery, theft, alcoholism, drug addiction etc into the area. To put a stop or reduce these type of activities, the company and the Obajana

community should set up a committee that will be in-charge of the community policing. This committee should involve the youth as well as the Nigerian police to curb the menace.

7 In terms of infrastructural development, the company in collaboration with the state government should help to tare, grade or sand fill the various access and street roads within and into the community. In achieving this, the company can donate bags of cement, the government donate machines while the community provide free labour to the construct the street roads, drainages and water channels. In solving the water problems in the community, electrically pumped boreholes should be sunk in different strategic locations in the community by the Lokoja Local Government assisted by various age groups as well as wealthy people in Obajana. The epileptic power supply issue by the Power Holding Company of Nigeria can be put to an end if only the company is involved. Therefore, the company should provide the community with a power generating plant while the wealthy individuals take the responsibility of supplying diesel as well as maintenance.

8 Obajana community as a whole does not have a single social facility like recreational centre, sport facility, social center etc. for the Obajana residents. In solving this problem, the company should construct a standard sport center, a standard football field, town hall, a relaxation/ social centre etc for the community.

9 Obajana community is a young and growing town. People are migrating into it on a daily basis. Hence, there is the need for the Obajana master plan. This will help to shapen and organize the town infrastructurally and physically. If this is not done and implemented, in the nearest future, Obajana will be a filthy and shanty town. The Kogi state should as a matter of urgency draw out a master plan and implement it now.

5.4 SUGGESTIONS FOR FURTHER RESEARCH

The above discussion provides some clues about profitable ways to assess impact of Obajana on the socio economic development of Obajana, Kogi State. Without pretending that the following is exhaustive in scope, these represent useful areas to consider for future research.

(1): It is believed that cement factories all over the world are known for dust emission and Obajana cement factory cannot be an exception. Therefore, further work should be carried out to explore the effect of dust emission on the health of those working in the factory as well as the residents of Obajana community using a control experiment from a neighboring community.

(2): Giant industries especially in Africa normally have unending fracas with their host communities especially when they fail to give back to their host community for example, the oil companies in southern Nigeria and their host communities. A further research should be carried out on the relationship between the Obajana community and the Obajana cement factory.

(3): During the dry season, the Obajana community is always covered with dust and as a result, farming activities is always put to a halt and nobody is saying anything on how to rescue the situation. Therefore, further work should be carried out on the impact of dust on plants and its resultant effect on wildlife.

(4): Most of the Multi-National and locally owned companies in Nigeria have failed to measure up to the standard of international norms and ethics of the Corporate Social Responsibility (CSR). The give and take approach of the companies to their host communities is far from what is obtainable in the Europe and other developed countries in the world where standard is insisted on. It has been alleged that business practices are destroying life on earth and are responsible both

directly and indirectly for the most dramatic human impact on the ecosystem like what is happening in Nigeria's Niger- Delta where oil spillage has destroyed a vast ecosystem. Therefore, it will be of immense benefit a further study is carried out to assess the corporate social responsibility of the Obajana cement factory to Obajana, Kogi State.

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Dear respondents,

I am M.Sc. Student of Demography and Population studies, Department of Geography, Ahmadu Bello University, Zaria, conducting a research on the impact of Obajana Cement Factory on the socio-economic development of this community. These questionnaires are structured to gather information about the company and the area. Any information provided will be treated as secrets. Your assistance and cooperation in completing these questions will be highly appreciated.

SECTION A: demographic and socio-economic characteristics of respondents

1 Sex: (a) male [ ] (b) female [ ]

2 Religion: (a) Christianity [ ](b) Islam [ ] (c) Traditional Religion [ ] (d) others specify……. ….

3 Age: (a) 15-19 [ ] (c)20-24[ ] (d)25-29 [ ] (e)30-34 [ ] (f)35-39 [ ] (g)40-44 [ ] (h)45-45[ ] (i)50-54[ ] (j)55-59 [ ] (k)60-64 [ ] (l)65above[ ]

4 Marital Status: (a) Single [ ] (b) Married [ ](c) Divorced [ ] (d)Widowed [ ] (e) separated [ ]

5 What is the size of your household? (a) 2[ ] (b) 3 [ ] (c) 4 [ ] (d) 5 [ ] (e) 6 [ ] (f) 7 [ ] (g) 8[ ] (h) >8 [ ]

6 Educational qualification: (a) Primary education [ ] (b) Secondary education[ ] (c) post secondary education [ ] (d)) Koranic education [ ] (e) No formal education [ ]

7 Occupation: (a) Farming [ ](b) petty Trading [ ](c) civil service [ ] (d)Company staff [ ] (e) artisan [ ] (f) Labourer[ ] (g) Housewife [ ] (h) others, specify……

8 How much is the monetary value of your economic status weekly at present? (a)<500 [ ] (b) 5000- 10000 [ ] (c) 11000-15000 [ ] (d) 16000-20000 [ ] (e) >21000 [ ]

9 What tribe are you? (a)Tiv [ ] (b)Igala [ ] (c)Ebira [ ] (d) other southern minority [ ] (e) other northern minority [ ] (f) Yoruba [ ] (g) Hausa-fulani [ ] (h)Igbo [ ] (i) others, specify……..

10 What tribe are you? (a)Tiv [ ] (b)Igala [ ] (c) Ebira [ ] (d) other southern minority [ ] (e) other northern minority [ ] (f) Yoruba [ ] (g) Hausa-fulani [ ] (h)Igbo [ ] (i) others, specify……..

11 What is the type of your accommodation? (a) one room [ ] (b)two rooms [ ] (c) flat [ ] (d) compound house [ ] (e) duplex[ ]

12 Ownership of accommodation? (a) Personal [ ] (b) family house [ ] (c) relative [ ] (d) rented [ ] (e) friend [ ] (f) official [ ] (g) squatting [ ] (h) others, specify……

13 If rented, as in (12 above), how much does it cost per year? (a) 5,000-9,000 [ ] (b)10000- 14000[ ] (c) 15000-19000 [ ] (d) 20000-24000 [ ] (e) 25000-29000 [ ] (f) 30000-34000 [ ] (g) 35000-39000 [ ] (h) 40000+[ ]

14 For how long have you lived here? (a)less than one year [ ] (b)1-2years [ ] (c) 3-4years [ ] (d)5-6years [ ] (e)7-8years [ ] (f) 9-10years [ ] (g)11above [ ]

SECTION B: The social impact of Obajana cement factory

Social impact	**Strongly agree**	**Agree**	**Undecided**	**disagree**	**Strongly disagree**
Loss of social contact					
Improved infrastructures such as roads					
Improved social amenities such as schools					
Improved Water supply					
Improved electricity supply					
Equipped hospitals					
Scholarship to indigenes					
Migrants coming to settle in the area					
Increase in social vices such as prostitution, robbery, theft, banditry, alcoholism, drug abuse etc					
Land disputes					
Alteration of culture and lifestyle of the people					
Possible displacements of the original land owners					
Disruption of livelihood as a result of loss of resources					
Social tension due to the unprecedented influx of population into the area.					

14. Inventory of some basic social amenities in the community

AMENITIES	**Number available before**	**Number available after**
HEALTH		
Dispensary		
Primary health care centres		
General hospital		
Private clinics		
Maternity		
EDUCATION		
Govt primary schools		
Govt secondary schools		
Private nursery and primary schools		
Private secondary schools		
INFRASTRUCTURE		
Roads constructed in kilometers and in numbers		
OTHERS		
Banks		
Boreholes		
Recreation centers		

16 Was there access road to this community prior to the establishment of Obajana cement factory? (a) yes [ ] (b) no [ ]

17 If yes, what was the type of the road? (a) foot-path [ ] (b) tarred road [ ] (c) graded road [ ] (d)express high way [ ] (e) dual carriage way [ ] (f) others, specify…….

18 what is now the type of the access road after the factory's establishment? (a) foot-path [ ] (b) tarred road [ ] (c) high way [ ] (d) dual carriage way [ ] (e) others, specify…….

19 Was there electricity before the coming of the cement factory? (a) yes [ ] (b) no [ ]

20 If no, how were you getting power supply? (a) personal generating plant [ ] (b) community power generating plant [ ] (c) solar panel [ ] (d) no power supply [ ]

21 how do you now get your power supply after the establishment of the cement factory? (a) personal generator [ ] (b) supply from the factory's generating plant [ ] (c) community power generating plant [ ] (d) PHCN [ ] (e) others, specify……..

SECTION C: Economic impact of Obajana cement factor

22 Do you agree or disagree with the following economic impacts of the cement factory?

Economic impacts	**Strongly agree**	**Agree**	**Undecided/ don't knw**	**Disagree**	**Strongly disagree**
Improved income					
Improved standard of living					
Increased market for agricultural produce					
Loss of communal farmland					
Job creation and employment					
Establishment of more businesses as a result of the influx of people.					
Increase in property value					

23. What were you doing for a living before the coming of Obajana cement factory? (a) hunting [ ] (b) farming [ ] (c) petty trading [ ] (d) civil service[ ] (e) others, specify……

24 How was your economic status based on monetary value weekly before the operation of Obajana Cement Factory monthly? (a) < 2000[ ] (b) 2000-2900[ ] (c) 3000-3900 [ ] (d) 4000- 4900[ ] (e) > 5000 [ ]

26 What kind of house were you living before the establishment of the factory? (a) Family house [ ] (b) inherited house [ ] (c) squatting [ ] (d) personal mud house [ ] (e) personal thatched house [ ] (f) rented apartment [ ] others, specify……

SECTION D: Factors responsible for the establishment of the Factory in Obajana.

27 In your opinion, what is the factor responsible for the sitting of this industry in Obajana?

(a) Availability of limestone in large quantity [ ] (b) access to sizeable flat land [ ] (c) availability of water [ ] (d) presence of cheap labour [ ] (e) presence of social amenities [ ] (f) political reasons [ ] (g) availability of high population [ ] (i) others, specify……

SECTION E: Infrastructural facility of Obajana

31 Who provide these facilities?

Facility	**community**	**Government**	**Company**	**Individuals**
Roads				
Schools				
Hospitals				
Water supply				
Power supply				
Recreational/sports facility				

FOCUS GROUP DISCUSSIONS (FGDs) GUIDE

Topic: An assessment of the impact of Obajana cement factory on the socio-economic development of Obajana, Kogi state Nigeria

s/n	General question	Probe for:
1	What do you understand by the impact of Obajana cement factory	The factory has either affected the community positively or negatively
2	In your own point of view, why do you think Obajana cement factory was established in this community?	Siting of any industry involves , availability of raw materials, proximity of the raw materials, availability of labour, water supply source, good source of power supply, flat terrain etc
3	To the best of your knowledge, has this community benefited from the establishment of this factory?	It is the duty of the company to perform their corporate social responsibility such as giving scholarships to intelligent indigenes of the host community, providing health care, educational facilities as well as other basic amenities to the host communities.
4	What was your occupation before the coming of the factory	The primary occupation of the people of Obajana is farming. Others are engaged in fishing, hunting, trading etc

5	Has the company improved your economic status in any way?	The establishment of the factory has a cascading impact on the host community. Its either the indigenes are employed directly into the company or the company has indirectly made the Obajana people to get themselves engaged in meaningful trades as a result of the influx of people of diverse origin to the study area.
6	What is the relationship between the company and the host Obajana ? cordial?	Many companies of this magnitude collect lands from their original owners forcefully without duely compensating them.
7	Has the company brought any kind of social vices into the community?	Establishment of factories usually lead to migration of people into the place where the company is located. Therefore, the host community cannot be free from the activities of prostitutes, drugs users, thieves, armed robbers etc.
8	Has the establishment of the company brought any health challenges?	People around cement factories are usually associated with respiratory diseases like pneumonia, cough, catarrh, tuberculosis, lungs problems etc

9	What are the major environmental challenges caused by the factory?	Soil, water, air and noise pollution. Soil degradation as a result of heavy machines movement, destruction of arable farm lands etc
10	What are the socio-economic benefits derived from the establishment of the cement factory?	Creation of infrastructure such as roads, potable water supply, electricity supply, building of educational facility, building of town hall, creation of recreational facility, provision of jobs, training of indigenes in various trades and skills, provision of agricultural incentives, provision of loans and other credit facility as well as giving of scholarships to qualified indigenes of the community.