SOCIO-ECONOMIC EFFECTS OF INDUSTRIAL CRISIS AND FAILED PROJECTS IN NIGERIA: EMPIRICAL EVIDENCE FROM AJAOKUTA STEEL MILL

By

Abdulrahman Adamu, Aminu Idris & Fadeyi, Taofiq James

Department of Political Science, Federal University Gusau Zamfara State, Nigeria

Corresponding Author: abduladamu6@gmail.com +234(0)8039190666

The authors thank and appreciate Tertiary Education Trust Fund (TETFund) for providing funds towards making this project with grant allocation Number: "TETF/DR&S/CE/UNIV/GUSAU/IBR/2020//VOL.1" a success. We also acknowledge and appreciate the efforts of the Federal University Gusau and its Centre for Research in particular for ensuring that our application for the grant was forwarded to the Fund and approved.

Abstract

The Ajaokuta Steel Mill has remained comatose for decades with attendant consequences on the country's industrial sector. The wisdom behind the establishment of the Steel Mill was to bring about viable economic development and drastically reduce unemployment in the country. Unfortunately, forty years after the Ajaokuta steel mill came into being, the company is yet to operation while physical commence infrastructure there have become dilapidated with no concerted efforts made so far by the government to revamp the steel company. It is against the backdrop of the foregoing that this paper investigated the socio-economic effects of industrial crisis and failed projects in Nigeria with particular focus on the Ajaokuta Steel Mill. The paper which utilized key informant interview and secondary sources of data, applied the elite theory of public policy as a basis to understand the influence of governance on the state of the company. The study reveals that while the Ajaokuta Steel Company is seemingly beset with internal problems it can nonetheless, be revived. One of the greatest problems is that those Nigerians who have benefitted from the corruption in Ajaokuta would not allow it to function. This position is essential and primary to the international economic political angle associated with the reviving of the Steel Mill. In other words, the interest of those members of the governing elites who are currently benefiting from the comatose company is primary to the will to revive the Steel Mill. The annual budgetary allocation to the company as stated in

this study informs this assertion. Thus, this position is different from the views of studies such as Oluwole, (2018), Al-Amin, (2013), Ohuoma, (2019) and Eromo, (2019). The paper recommends that governments at all levels in Nigeria should ensure continuity in policy implementation to curtail wastages, especially in the country's public sector. It further recommends that over dependence on foreign interests and investors to turn around the fortunes of the Ajaokuta Steel Mill should be minimized.

Keywords: Ajaokuta Steel Mill, Economic development, foreign interests, Industrial crisis, Unemployment

1.0 Introduction

It seems inverted pyramid of literature is silent about the nexus between the interest of the governing elites and public policy and decision as an obstruction to industrial development in Nigeria. The interplay of these variables is an essential recipe for the industrial crisis in Nigeria. It is not an exaggeration to state that Nigeria is endowed with both abundant human and material potentials which if properly and effectively harnessed, would ensure socioeconomic development capable of improving living standard of the citizens. the Unfortunately, capital projects in Nigeria hardly get completed as many of them are abandoned as white elephant projects. Thus, the Nigerian state has witnessed series of failed projects even since the military era in spite of the fact that such projects were designed to serve as catalysts for national development. The extent to which this goal has been realized remains a subject for interrogation. Industrialization in Nigeria has continued to be a big challenge due to the fact that many industries in the country are dormant and unproductive. Most of the productive and functional industries in the country are said to be owned by either private individuals or foreign investors. One of the comatose industries which has the potential of jump starting the country's match to sustainable industrial development is the Ajaokuta Steel Mill located in Ajaokuta, Kogi State.

The Ajaokuta Steel Plant was set up to help revive Nigeria's industrial metallurgy and economy to the in-house manufacturing of capital goods. The ultimate goal is to serve as Nigeria's main platform towards becoming an economic and industrialized global power (Matusevich, 2003). Studies such as Oluwole (2018), Al-Amin (2013), Ohuoma (2019) and Eromo, (2019) have established the viability of the Ajaokuta Steel Plant. They argue that the Plant which is a national project that was supposed to serve as a panacea to developmental challenges in the country, has remained comatose for decades. None of these studies interrogated the socio-economic effects of industrial crisis and failed projects in Nigeria using empirical evidence from Ajaokuta Steel Mill. Even the study of Ohuoma (2019) that linked the collapse of the Steel Mill to the abandonment of the industrial sector by the government did not use qualitative data to generate specialized views from key informants who have bias for the Ajaokuta Steel Mill. It is against the foregoing gap in literature that this paper seeks to examine the socio-economic effects of industrial crisis and failed projects in Nigeria with particular focus on the Ajaokuta Steel Mill.

2.0 Research objectives

The general objective of this study is to examine the socio-economic effects of industrial crisis and failed projects in Nigeria with empirical evidence from Ajaokuta Steel Mill. While the specific objectives are:

- 1. To identify the factors responsible for industrial crisis and failed projects in Nigeria.
- 2. To examine the problems forestalling the revitalization of Ajaokuta Steel Mill.

3. To suggest workable strategies that can ensure the revitalization of Ajaokuta Steel Mill.

4.

3.0 Research Questions

The following research questions will guide the study:

- 1. What are the factors responsible for industrial crisis and failed projects in Nigeria?
- 2. What are the problems forestalling the revitalization of Ajaokuta Steel Mill?
- 3. What are the strategies to be adopted to ensure the revitalization of Ajaokuta Steel Mill?

4.

4.0 Methodological and Theoretical framework

This research utilizes the descriptive research design. The reason is that descriptive studies aim at collecting data and systematically describing them, the characteristics, features, or facts about a population. For the descriptive survey to be scientifically and successfully conducted, the following steps were followed appropriately: sources of data, instruments of data collection, study area and population, sampling format and study sample, method of data presentation and analysis. The population of this study is 2,301 (Ajaokuta Steel Mill Nominal roll, 2022).

Since the study population is known, Taro Yamane's (1976) formula was used to determine the sample size, using a significant level of 0.00025. Thus, the sample size for this study is 15 which is 13% of the study population for fair representation. Since the sample size is scientifically determined; the study used purposive/judgmental sampling to locate key informants in the study area. The researcher believes that the respondents are persons that will satisfy the need of the research problem.

Table 1.1: Fifteen key informants purposively chosen and located

pur posivery chosen and located		
S/NO	Key informants	Number
1	Management Staff	4
2	Divisional Heads	5
3	Sub-unit Heads	3
4	Staff Member	3

Source: Researchers' compilation, 2022.

Meanwhile, as shown in Table 1.1, a sample size of 15 persons was purposively selected as key informants and accordingly interviewed. The reason is that the researchers thought it wise to interview key informants who have good knowledge of the research problem to tease out their opinions. This study used literature and key secondary informant interview as instruments for collecting data. It used the secondary literature to generate both the qualitative and quantitative data, while key informant interview generated qualitative data. The study used the key informant interview as an instrument to generate qualitative data, the views of key informants were recorded, transcribed, and discussed according to the researchers' understanding of the study. The reason for the choice of this method is that the study triangulates sources of data collection, which includes key informant and secondary literature. It also helps to compliment the strength of each of the methods and close gaps that may be identified with a particular method, boosting the resultant outcome research. The quantitative data sourced from the aid of literature were cross-tabulated using simple percentage to determine the average significance of responses to the research auestions.

The study used the elite theory of public policy analysis. The elite theory of public policy is associated with the works of Thomas Dye and Zeigher. Elite domination Harmon influence over the outcomes of policy processes is not debatable in public policy literature. This study describes them as organized group of actors defined by combinations of skills, access to vital information, social status, economic resources and institutional positions, who come together through common backgrounds, coinciding interests and social interactions. Their decisions regarding a perceived public problem constitute policy. For this reason, elite interests in the policy process have come under scrutiny across sectors.

Therefore, this study used the elite theory as an analytic framework to explore the interests of policy-makers/actors and how they exerted different forms of power to pursue their interest in the policy process. The choice of elite theory is based on the nature of Nigeria's policy process which as elaborated, is centralized, and works through structures which are normally

occupied by elites. The study operationalized elites as an organized group of actors defined by combinations of skills/expertise, access to vital information, control over financial resources and holding strategic institutional positions, come together through common backgrounds and coinciding interests. These attributes confer power upon policy elites which they apply to exert significant influence on the policy decisions, in contrast to the public's lack of power. This study focused on national policy actors. These are individuals who have specific responsibility for developing formal policies in the public or private sectors. Actors also encompass groups, agencies and organizations at national and international levels who seek to influence the formal policy process.

Policy elites are divided into governing and non-governing actors. The governing (formal) elites are policy actors who participate in the policy process because they are mandated by their positions in a government agency to make and enforce policies. The non-governing (informal) elites are policy actors who are not part of the official government structures and have their own (personal or organizational) strategic interests to protect and promote, but without whom the government would not function well. In this analysis, the study examined elite interests as its central organizing concept, operationalized as the preferences pursued by policy elites (governing and nongoverning elites) in the policy process. Elite interests vary from self-interest, to pragmatism and public interest/altruism; and sometimes are interlinked. Self-interest is reflected behaviours that seek to maximize personal benefits (economic, political or otherwise), while minimizing the personal, negative consequences. Pragmatism is shown when less powerful elites adjust to accommodate the interests of the more powerful, as they try to find practical ways of addressing societal problems. Actors constantly monitor the policy environment and continuously adapt to its pressures as they strive to meet their policy goals. Public interest/altruism on the other hand entails "the outcomes best serving the long-term survival and well-being of a social collective construed as a public, sometimes pursued as a moral obligation to improve welfare".

The policy outputs arising from elite decision-making often reflect their interests,

because they exert power to influence decisions during the policy process. Power operationalized as the ability to exercise influence and control over the outcomes (decisions) of the policy process. It is applied in subtle or explicit forms to propel elite interests during decision-making. While power takes different forms in this study, it considered access and control over financial resources, control of vital information, skills (especially expertise) and positional power (including controlling the structures and managing the policy processes). The study will concurrently analyze how members of the different elite groups apply power in its different forms to advance their diverse, and sometimes interlinked interests in the industrial crisis of the country with particular focus on Ajaokuta Steel Mill. This is the conceptual angle that this study seeks to use the theory to interrogate and arrive at a conclusion.

5.0 Literature review

The validity and authenticity of every empirical research rely solely on the quality and reliability of the available literature reviewed. To this end, this section of the work deals with the review of relevant literature on the basic and fundamental concepts in the subject matter which are industrial crisis and Ajaokuta Steel Mill.

5.1 Industrial crisis

It is not out of place to state that the crisis bedeviling manufacturing industries in Nigeria has contributed tangibly to the low performance resulting industries to unemployment, underdevelopment and other social vices. In some cases, it has been described as industrial conflicts. Industrial crisis or conflict occurs as a result of two variables which failed to reach an agreement within an organization or industry. The drama is usually employers between the and employees. According to Yesufu (1982), industrial crisis include any form of work discontent which show up in several ways such as absenteeism, go-slow, loss of man-hour, high labour turnover. work to rule, picketing, strike, sabotage, walkin and sit-in, over time ban, high rate of sickness, lockout, suspension, and high incidence of query issuance.

In the same vein, Chen et al (2018) opine that industrial conflict occurs as a result of the failure of employers and employees to reach agreement which may eventually lead to industrial strikes, lockout or other forms of protestation. This position accounts for why there exist series of strikes, lockout or protest in Nigeria. These employees could be government and as well be private individuals. Industrial crisis is the clash of interest within a work place. Industrial conflict is viewed as the disagreement of interest which results into discontentment of different degrees between employers employees in the workplace (Asamu, Asaleye, Arisukwu and Bamidele, 2019:121). They stated further that industrial conflict does not necessarily or directly affect the actors in an industry but rather it often makes the actors to impose sanctions so as to inflict economic pain on each, in order to achieve their demand. But another scholar Yesufu, (1982) disagrees with Asamu et'al, (2019:121) by stating that "it affects the immediate parties involved, which normally trickles down to the entire society especially when it occurs at a national level". Dauda (2006) agreed that some of the causes attributed to the spate of persistent industrial crisis in Nigeria include, inter alia, poor infrastructural base in the workplace, low level of motivation, insecurity of jobs, policy inconsistencies and variance in management styles, breach of collective agreement. Some of the resultant consequences responsible for the occurrence of industrial crisis are utilized as weapons by the employees against the employer(s). They are used by the employee to push, and demand a forceful adherence to their demands. In antagonistic or refuting the demand of the employees, results to clash of interest which may lead to the closure of the organization, suspension of employees etc. and affect the economic efficiency of the society. Industrial crisis could also be viewed as work stoppage on the part of the employees to force their demands on the employer(s) or to resist a particular demand/rule made by the employer. Fashoyin, (1992) avers that industrial crisis is an enduring power struggle between workers and employers. It is a struggle of interest. None of these have linked the industrial crisis in the sector to elite interplay particularly the Ajaokuta Steel Plant. This is the gap that this study seeks to interrogate and tender recommendations.

5.2 Ajaokuta Steel Mill

The plan to construct the largest steel making plant in Nigeria began in 1958 even before independence. The Ajaokuta Steel Plant (ASP) was Nigeria's first steel plant to be established. As an integrated plant, the ASP was designed to process inputs to the main steel plant by itself, convert ore and solid metal to liquid iron and pig iron to liquid steel (Oluwole, 2018:335). In addition, the plant will solidify liquid steel, reduce large steel blocks to billets and roll products into finished shapes. The Steel Plant project was further planned implemented successive by Nigerian administrations between 1970 and 1985 when it was commissioned uncompleted.

The Ajaokuta Steel mill also known as Ajaokuta steel plant Project was designed to produce long products like iron bars, wire rods, angles, squares, channels, beams, and structures in its first phase of operation. Most of the products were expected to be used in the civil engineering and construction industry (Al-Amin, 2013). Al-Amin further stated that the structure and operation of the Ajaokuta steel plant has no spectacular difference with other steel plants around the world using the blast furnace method of steel production. The primary and secondary plants of Ajaokuta steel plant have reached about 98% stage of completion.

The Ajaokuta Integrated Iron and Steel plant is a product of the Blast Furnace /Basic Oxygen Furnace (BF-BOF) process of iron making. The process was often referred to as the conventional method which has acknowledged by steel experts to be the most versatile means of producing crude steel. It was argued that the method accounted for over 70% of steel production in the world. According to the construction blueprint of the steel mill plant, the Ajaokuta Steel Plant has a raw materials preparation unit, a sintering plant, Coke-oven unit, the iron making plant, steel making plant and the rolling mills known as the primary plants.

For Al-Amin, (2013), the Ajaokuta steel was built in its conception with four rolling mills. These are 150mm Wire Rod Mill, 320mm Light Section and Bar Mill, 700mm Medium Section and Structural Mill and 900/630 semicontinuous Billet Mill.20. Two of these mills, the light section and Wire Rod mills were originally supposed to be the priority rolling

mills. This means that these priority rolling mills were accorded accelerated speed in their construction so as to produce steel with imported billets and scraps while the blast furnace and other components of the steel plant were on going. Some scholars such as (Agbu, 2006, Audu 1992; Easter et al 2009) are unanimous that these priority mills were actually completed and commissioned between 1983 and early 1994 and production started with imported billets. The company is yet to commence full operations several years after it was conceived to drive massive industrialization in the country (Ohuoma, 2019). Recently, the Federal Government allocated a total of N3.796. 479,657 to the Ajaokuta Steel Complex for the 2020 appropriation year. According to some of the reports, checks by (Punch, October 23, 2019) in the proposed budget for the Federal Ministry of Mines and Steel Development showed that the bulk of the money allocated to the company was for personnel cost, for which N3, 532,705,883 was budgeted.

6.0 Overview of industrial crisis and failed projects in Nigeria

There is no gainsaying that industrial crisis has halted the spate of development in Nigeria over the years. Such industrial crisis have led to series of strikes and absenteeism of employees in many organizations. Most of the nationwide strikes embarked on in the country in the past had resulted to economic setbacks. Some of the causes of these strikes are often attributed to the government's inability to satisfy certain labour demands. Project failure in the country has also added to the growing menace of Nigeria's industrialization and development. Industrial crisis also results from conflict of opinions when there is disputed views and information between the workers and employers. This arises from clash of interests during the process of negotiation incompatibility resulting from incomplete means in the pursuance of their respective goals. During the military administration in Nigeria, trade union activities were undermined.

Adesina, (2003) had also acknowledged that the government (especially the military regimes) had profound impacts on the trade unions, which manifested in the alteration of the rules of engagement between the State and the unions in Nigeria. This could also be as a result

of insensitivity and insincerity in handling union demands by the government and managements (Otobo, 1983). To understand the effects of industrial crisis and failed projects in Nigeria, it is fundamental to view it from political economy perspective so as to add academic value to the study. In Nigeria, poor policy formulation and implementation can be said to have encouraged the industrial crisis and failure of public projects. According to Akin (1988:3), policy failures become most visible during crises and when performance is measured against objectives. He further buttressed his point by adding that, to determine the reasons for failure, one must begin with scrutiny of the characteristics of the policies. Countless attempts have been made to revive the various industries including the Ajaokuta steel mill but all efforts couldn't avail because of political factor (policies). Most mega projects could not stand the test of time in Nigeria. Some of the projects executed after independence faced great challenges. Inconsistency of policies and lack of policy implementation have resulted in the failure of various projects in Nigeria. For example, some of the refineries in the country currently are not operating according to installed capacity. From the foregoing, it is glaring that lackadaisical attitude of government results in most cases to industrial crisis especially in government's owned industries and failed projects in the country, stemming from the inconsistency of policies and poor implementation of the policies leading to economic milieu.

The consequences of industrial crisis that usually result when both workers and employers are unable to reach a resolution are not usually advantageous to the economy of the county. The effects have both been micro and macro-economics. At the micro-economic stratum, the workers involved lose their immediate pay (salary, wages etc) and thus their market purchasing power results to reduction in welfare on one hand. On the other hand, employers whose workers are on strike lose the union's services and as a result, becomes unable to meet their customers' orders or demands; this invariably affects their returns and profit margin, while at the macroeconomic level, it results to loss of output of goods and services. This affects the employers output and their production is slow down or comes to a halt and

in the long-run, the nation as a whole, bear the brunt.

6.1 Factors responsible for the failure of Ajaokuta steel mill and the implications for national development

A number of factors are said to be responsible for the failure of the Ajaokuta steel mill to fully commence operation in spite of the huge amount of resources invested on it. That accounts for why Ohimain, (2013:236) asserted that the project appeared too massive for a nation without any previous experience in steel making. Suffice it to say that the Nigerian steel sector is faced with a lot of operational challenges primarily due to poor planning, contracting strategy, design, funding instability in the country's political administrative systems. Regrettably, 46 years after establishment, and despite efforts being made by successive regimes in Nigeria to revamp the plant, the Ajaokuta steel mill is yet to commence operation. It is worrisome to note that since the establishment of the steel mill, a single rod has not been produced. According to a report by Eromo, (2019) the Ajaokuta steel mill funded with Russian aid, the \$4.6bn Ajaokuta steel company has not produced a single bar of steel in over 40 years. The project was intended to help Nigeria gain selfsufficiency in steel production. The dreams and objectives of the Ajaokuta steel mill had not yet materialized.

Some of the frantic attempts so far made to revamp the company have failed dismally. For instance, an Indian company, Global Steel Holdings Limited, won the concession of the Ajaokuta steel mill for a 10-year period but the agreement was revoked when the Federal Government accused the firm of asset stripping, a development which led to a court case between the two parties (Ohuoma, 2019). This situation greatly influenced the less or non involvement of many foreign companies. There is no gainsaying the fact that the steel industry is the backbone of any political entity as it serves as a stimulus to national development and economic growth of a country. The Ajaokuta Steel Company located in Kogi State of Nigeria was envisaged to serve as the bedrock of Nigeria's industrialization. It was viewed as the surest means to Nigeria industrialization dream.

As stated earlier, the idea of having a steel industry was conceived in 1958 by the federal government. Preliminary market studies were carried out and studies were initially directed towards the feasibility of establishing rolling mills. However, because of the growing awareness of the availability of iron ore in Agbaja, Udi and other parts of the country, emphasis later shifted to establishing an integrated steel plant. The late Tafawa Balewa and late Nnamdi Azikiwe between 1960 and 1966, invited and received a number of proposals from foreign firms, including those from the United Kingdom, United States, Germany and Canada, most of these, being on the feasibility of establishing a steel complex.

According to Oluyole and Agency Reports, (2017), the efforts of government did not yield significant positive results because they were based on the use of iron deposits in Agbaja and Udi which were later found to be unsuitable for direct production. It was also reported that in 1967, a team of Soviet experts arrived Nigeria to conduct a feasibility study on the establishment of an iron and steel plant, as a follow-up on a technical/economic cooperation agreement between the governments of Nigeria and the USSR. In their report, recommended the use of blast furnace process of iron making. The report also pointed out that the known iron ore deposits in the country were of poor quality and recommended that further geological surveys be conducted to see if better ore could be found. Thus, in 1968, Soviet geological experts came to Nigeria and after a general geological investigation reported that there were high prospects for richer iron ore and coal deposits in the country. The federal government concurred with the report and signed a contract in 1970 with TYAZH PROM EXPORT (TPE), a Russian company, to provide specialized equipment to carry out further geological survey to determine the quantity of the deposits of iron ore, coal resources in the country that could be used for the proposed iron and steel industry.

In 1973, suitable iron ore deposits were discovered in Itakpe, Ajabanoko and Oshokoshoko all in the region around Kabba-Okene-Lokoja – Koton Karfe axis, now in Kogi State. The TPE was awarded the contract to prepare the preliminary project report for the proposed Iron and Steel Industry in Nigeria.

During the reign of late Major-General Murtala Mohammed in 1975, the preliminary project report specifying the raw materials base at Itakpe in Kogi plant located in Ajaokuta, 1st phase production volume (1.3 mmt), process route (Blast Furnace -Basic Oxygen Furnace), Product form (Long products) submitted by TPE was reviewed, discussed and accepted. Tyazh prom export (TPE), was subsequently commissioned to prepare the Detailed Project Report (DPR) on Ajaokuta which was completed and submitted in 1977.

By 1979, the Ajaokuta Steel Company (ASCL)/NIOMCO, Delta Limited Company (DSC), among others. were established under Section 2 of National Steel Council Decree No. 60 of September 19, 1979 and incorporated as Limited Liability Companies. President Shehu Shagari in 1980, laid the foundation stone of an integrated steel plant in Ajaokuta on a 24,000 hectare of sprawling green-field landmass, built on 800hectares.

The steel company has four different types of rolling mills, such as the Billet Mill which produces billets; the Light Section Mill which produces round, square, strip and angles metals. The Wire Rod Mill produces wire rods and rebars used in construction companies and production of nails, fencing wire, rope mesh, bolts and nut and netting and the Medium Section and Structural Mill produces parallel flange channels, equal angles, unequal angles and standard channels. The four rolling mills are bigger than the Aladja, Osogbo, Katsina and Jos rolling mills put together while the coke oven and bye products plant is bigger than all the four refineries in Nigeria put together.

It was believed that from 1980 to 1983, the Shehu Shagari administration achieved 84 per cent of Ajaokuta steel plant as the Light Section Mill of the plant was commissioned earlier than the scheduled date, while the Wire Rod Mill was also commissioned in April 1984, earlier than the scheduled month of December. In 1994, equipment erection work at Ajaokuta Steel Plant reached 98 per cent completion.

6.2 Factors responsible for the failure of Ajaokuta steel mill

In spite of the fact that the Ajaokuta Steel Plant was designed to contribute greatly to the development of Nigeria, it is sad that the

gigantic steel plant has failed to contribute to the development of the country especially economic development. This has brought setback to Nigeria owing to the fact that huge amount of resources was committed to the project and not a single gain is being recorded so far. It has been observed that successive Nigerian governments had spent over \$10 billion in the last 34 years and would require another \$2 billion to complete the remaining two per cent of the plant (Oluyole and Agency Report, 2017). It is disturbing to note that the Ajaokuta steel which reached 98 per cent completion as far back as 1994, had not produced or achieved any of its set objectives till date. The blueprint indicated that the integrated plant was envisaged to have multiplier effects on all sectors of the Nigerian economy such as the industrial, agriculture, transport and construction sectors, among others. Going by the design, Ajaokuta steel has the capacity to serve as a major producer of industrial machineries, auto-electrical spareparts, shipbuilding, railways and carriages in the country. But none of these has been achieved due to alleged corruption and lack of political will on the part of successive Nigerian governments. However, factors responsible for the failure of Ajaokuta Steel project can be categorized into two viz; endogamous and exogamous factors. These factors are often referred to as internal factors which include the following below;

(i) Lack of political will

One thing that is pertinent to note is that since the establishment of the Ajaokuta Steel Mill, different regimes at different times had come and gone in Nigeria but unfortunately, little or no serious attention has been given towards revitalizing the Steel Plant. It has been reported in some quarters that some political leaders did not relate their focus to the revamping of the Ajaokuta steel mill project and as such, only the current administration of President Muhammadu Buhari is making efforts towards putting the steel mill in operation again. For instance, the current government has commissioned audits into the steel firm and since its first term in office in 2015, the Buhari administration has sanctioned at least two audits. In April 2019, the President refused to sign the Ajaokuta Steel Company Completion Fund Bill, preventing a \$1bn allocation to the project from the Excess Crude Account.

However, labour unions lashed out at the government, accusing it of lacking political will (Eromo, 2019).

(ii) Lack of ideas and adequate information about the resources

Nigeria's evolving industrialization project was bedeviled by inadequate data for planning at the time (Olatunji, 2018:337). Also, Nigerian leaders and their economic experts lack strategic ideas of putting the Ajaokuta steel proper shape. into its After establishment of the Ajaokuta steel mill plant in 1958, the plant was inaugurated uncompleted which could be as a result of lack of ideas to achieve the intended goal. On the other hand, too much plans were made on building a steel mill plant but less planning or attention was given to the availability of the quantities of the resources and technologies that can be used to harness the raw materials.

In spite of the abundance availability of iron ore in Nigeria, there are some technological challenges in putting them into use for steel making. It has been observed that other technological equipments needed for harnessing the natural resources for the steel mill were scarcely included in the plan for the Ajaokuta steel mill project. Apart from Agbaja that has an iron (Fe) concentration of 45 - 54%, the concentration of Fe in the other proven fields is medium, in the range of 35.61 at Ajabanoko to 38% at Itakpe. The other iron ore fields under investigation basically have low Fe content in the range of 14 - 52%. Low grade ores require extra technology and investment beneficiation plant to process the ores to meet the required standard for steel production. Thus, building a steel plan in Nigeria was never a problem, but limited strategic plan has been a serious challenge.

Apart from the challenges associated with the iron ore deposits in Nigeria, there are also challenges with the coal deposits as well. Though, Nigeria has large deposits of coal, but most of them are non-cooking and as such, not suitable for steel production. For instance, Nigeria has its largest coal deposits in Enugu, which large quantity is reasonably free of impurities, but it is non-cooking. On the other hand, the Lafia-Obi coal has cooking properties but is high in ash and Sulphur, and the deposits have structural problems (Agbu, 2007). It is not

an over statement to state that other materials needed for steel production are available in abundant or large quantities in Nigeria. Some scholars are unanimous that the country has abundant deposit of limestone in excess of 700 million tonnes (RMRDC, 2001), 1.87 trillion cubic feet of natural gas (Ohimain, 2010), scrap iron (Ohimain, 2013; Ohimain and Jenakumo, 837 million tonnes of limestone (RMRDC, 2001) and yet to be quantified ferroalloy minerals such as manganese, vanadium, molybdenum, columbite. nickel. zircon, tantalite (Bamalli et al., 2011), cited in (Ohimain, 2013:235). This has not only resulted to the failure of the steel project but has also caused economic setback to the country.

(iii) Poor policy formulation and implementation

Policy formulation and implementation has been a serious issue in Nigeria due to the fact that the process is complex and vague. Virtually every stage of policy formulation is tedious and filled with cases of corruption. This has no doubt, contributed to the failure of the Ajaokuta steel project. It has been discovered that there is no specific policy directed towards sustaining the Ajaokuta steel mill project completion and continuity, while for the policy formulated so far, the implementation process has been faulty thus contributing to the failure of the steel mill project.

(iv) Policy inconsistency and lack of policy continuity

Another factor responsible for the failure of the Ajaokuta steel mill is the nature and character of policy formulation and implementation which are always inconsistent. There is also the problem of lack of policy continuity in Nigeria which has been a great challenge affecting the development of the country. Lack of policy continuity has halted the spate of development in Nigeria over the years and the Ajaokuta steel mill is not an exception. It is a common knowledge that in Nigeria constant change of government has affected the continuity of many public policies and projects in Nigeria. The moment there is a change of government in Nigeria, what becomes the order of the day is the discontinuation of policies and programmes introduced previous by administration. This is not ideal for a society

desirous of achieving all round development like Nigeria. This act has continue to increase the number of unfinished projects in Nigeria including the Ajaokuta steel mill. This has also resulted to a struggling or failing economy of the country.

There are various instances of policy Nigeria. inconsistency in According Ohimain, (2012:232), the vision 2020 document targeted the production of 2 million metric tons of steel products from DSC, whereas the plant is designed to produce 1 million tons of liquid still at full capacity. He also stated that it is therefore uncertain if the government plans to expand the plant by doubling its capacity before 2020. Studies have shown that during the Second National Development plan (1970-1974), the federal government established the National Steel Development Authority (NSDA) which was saddled with the responsibilities of iron and development in Nigeria (Ohimain. 2013:232). The NSDA under the influence of Russian experts conducted various geological surveys that led to the discovery of commercial quantities of iron ore in some communities in Nigeria. In a similar vein, Mohammed, (2002) observed that, during the third National Development plan (1975-1980),the government signed various agreements (1976-1978) for the construction of two integrated steel plants (DSC and ASC) and three rolling mills at Oshogbo, Jos and Katsina. Through Decree No. 60 of 18th September 1979, the government dissolved the NSDA which metamorphosed into several organizations such as Ajaokuta Steel Company, Delta Steel Company, Jos Steel Rolling Company, Katsina Steel Rolling Company, Oshogbo Steel Rolling Company, National Iron Ore Mining Company, National Steel Raw Materials Exploration Agency, National Metallurgical Development Center, and Metallurgical Training Institute (Mohammed, 2002). Thus, the other three rolling mills and DSC were completed as scheduled. The Ajaokuta Steel mill company was not completed even after over 40 years of intermittent construction efforts.

Considering the inconsistency associated with policy formulation and implementation in Nigeria, (Ohimain 2012:233) avers that during the period 2002-2012, the government implemented the backward integration policy, whereby import licenses for

steel products were only granted to companies which have plans for domestic steel production. Hence, the Russian contractors built the rolling mills in ASC first (and started using imported billets from Ukraine) before embarking on the steel plant, which was never completed till date. He avers further that in 1999 the government established the National Council Privatization (NCP) and Bureau of Public Enterprises (BPE) which midwifed the sale of ASC, DSC, National Iron Ore Mining Company (NIOMCO) and the rail track from Itakpe to Aladja to Indian companies, while the three inland rolling mills were sold to Nigerian investors. It has been observed that the privatization process was not transparent (Mohammed, 2008) and was unable to revive the steel sector. The inconsistent policy framework, coupled with corruption and poor contracting strategy led to the failure of the iron and steel sector in Nigeria. Changes in policies upon policies in Nigeria, also contributed in no small way to the failure of the Ajaokuta Steel Comapny.

(v) Oil discovery

It is not an overstatement to say that the discovery of oil and gas in commercial quantities in Nigeria has affected other sectors of the economy negatively as the attention of government was diverted to the oil industry. Suffice it to say that the period of oil boom in Nigeria hit so high that the country lost focus and concentration leading to its inability to complete the Ajaokuta Steel Mill project. government's policies Therefore, programmes as of that time were geared towards protecting the oil and as such, Nigerian government concentrated so much on building refineries and oil wells in the country and by implication, leaving the Ajaokuta steel company abandoned.

(vi) Exogamous factors

Most of the exogamous factors revolve around the circle of construction and influence of other foreign capitalist countries. The Ajaokuta Steel Plant was structured in the sense that it will be among the world's best and largest steel production plant. Its composition was to bring a lot of economic benefits to the country and Africa at large. Some foreign nations which were trade partners with Nigeria in steel never

wanted such to be achieved in the country. This situation accounts for why Ohimain, (2013:236) observed that;

The contractors were not also helping matters. These contractors were mostly foreigners, so the idea whether what was designed as the Ajaokuta steel mill was the actual thing. The general contracting procedure was faulty resulting in different EPC contractors working at different times. There were several years of dormancy (no activity) during the construction period.

For example, from mid-1990-2005, that is a period of 15 years, there was no meaningful construction activities at the site of the steel plant. This makes (Agbu, 2007) to agree that, the rolling mills that were completely installed were not operated for 14 years. Over dependence of the country on foreign experts has further delayed the completion of the Ajaokuta steel mill project making the Nigerian state a dependent state. The country largely relies on other nations especially of Western Europe for virtually everything developmental. That is to say, over dependence has greatly affected the completion of the Ajaokuta steel mill project. Too much dependence on foreign firms, contractors and expert advice to see to the completion of the project has unsuccessful due to the fact that most of those countries depend on Nigeria in some cases for their development. The world is operating largely on a capitalist system, the doctrines of the Marxist political economy approach is also relevant to the understanding of why the Ajaokuta steel mill project fails. The world especially in the area of capitalism, competition and constant struggle for domination is inevitable. The developed steel industries of other nations feel threatened with the establishment of the Ajaokuta steel mill plan therefore, serious efforts were not made towards seeing the Ajaokuta Steel Mill completed.

Most of the natural resources extracted in the country always find their ways to the industries and factories of the developed countries. Nigeria is also a multi natural resource country. Most of the raw materials extracted are usually traded to other nations and as such, they are used to have a multiplier effect positively on their economies. Building a steel mill in Nigeria will mean that these raw

materials would no longer be transported offshore which will have a multiplier effect on Nigeria's economy. But this became problematic for Nigeria to fully execute this programme.

7.0 Presentation of key informant interview

This segment of the paper presents the views of the key informants with the aim of getting their aggregate opinion on the research problem.

7.1 What are the factors responsible for industrial crisis and failed projects in Nigeria?

A respondent was of the view that:

Nigerians need to be optimistic about the Ajaokuta Steel Mill. To him, this administration is giving its best shots now on Ajaokuta, we have tried quasiprivatization in the past, and we have tried concession with the Americans. He explained further that with the Indians and all that, it all failed. Now we have gone to the original people that built Ajaokuta. He submits that it is unfortunate that we are at this impasse, because Ajaokuta like everybody will tell you is 95 per cent or 98 per cent complete, and you just wonder why there is no little push.

Another respondent asserts that:

There has been an international conspiracy against Nigeria not to produce especially when the country was buying steel from the West. Of course, they did not want Nigeria to produce steel, and with some local collusion or whatever, Ajaokuta Steel Mill has failed. But that is in the past, the focus now is on making sure that Ajaokuta works. The respondent argued that President Muhammadu Buhari has said we cannot Nigeria's money, hard-earned revenue at Ajaokuta again. She concluded that we are looking at something totally different and innovative.

A respondent asserts thus:

Nigeria has gone back to the Russians who are the original builders under the Soviet Union –Russia, Ukraine, and then some Romanians participated. What the country is doing now is, we have gone to the Government of Russia and they are working with the Nigerian Government to

see that Russian nominate a contractor from their country. We have got funding from the Russian Export Centre that is something like an Eximbank and of course from the Afreximbank. He maintains that the country has this funding. Now, the Russian Government will bring the contractor forth and we are working government to government. To him, this seems to be a better idea than what we had in the past where it was just profitoriented and then people just came in and milked Ajaokuta Steel Mill. Another respondent opined that Ajaokuta Steel Mill has worked at different times sporadically on one activity or the other, but now the thing is to get it working and keep it working. The arrangement we have now in place is that a company will come in, with the funding we are getting, and Ajaokuta will pay for itself. To him, the country does not have to involve public fund in Ajaokuta and that is the model we are working on now. He argues that that as we speak, the government is developing a business model to justify that, and this time, with all hands on deck, I think we should get it right.

One of the respondents puts it that:

When he came into office a few months ago and he looked at the budget over the years and looked at what they are paying staff which is something close to over N2 billion every year, then he said, why this? To him, he realized that the only reason why the country have assets there today, why Ajaokuta is intact, is because they have been spending that money annually paying the staff. To him, what government has done over the years is to maintain the staff in Ajaokuta and they have been operating skeletally. He submits that they keep the machines moving, they do the routine maintenance and that is why there is something you can come back to. He argues that looking at the rail slippers that have just been installed and people were stealing them. If Ajaokuta has been left since about 1994 or so, you would not meet anything there. The whole place will be vandalized and it will become a ghost town.

To him, Ajaokuta itself is bigger than the whole of the Federal Capital Territory. He reveals that Ajaokuta was created as a steel territory and it is a bigger town than Abuja. It has its own airport, it has its own port, it has communities, 10,000 housing units, all these have been maintained by this model that you see in the budget and of course the same thing for next year. He submits that the staff are here, stating that when Ajaokuta Steel Mill is operating, of course, the business model will take over, because then it will be able to pay the staff and of course finds its way out of borrowings. So, what you see in the budget is actually the fund to pay the staff of Steel Mill and it has been like that, and he thinks it is something that is commendable.

Another respondent is of the view that:

Everybody keeps talking about Ajaokuta Steel Project and are always emotional about it. To her, some even said let us sell it out Nigeria rightly. has spent to \$6 billion on Ajaokuta complex as it stands. It is bigger than the whole of Abuja, and it is a lot of money that has been sunk into that place, it is a lot of investment. But this investment has been kept alive by the money we pay to the staff annually. About 10,000 housing units are there. You have got the plant itself which is being maintained. Even now as the Russians are coming, all the mechanical parts are intact almost 100 per cent. Most of the things that will be changed in the complex will be the electronics and few things like that, which are of course obsolete because they have been fixed since 1994, that was the time they pulled out. She noted that Ajaokuta itself will be something that can serve as a game changer for Nigeria, because you cannot industrialize when you do not have steel, it is very important. To her, even in construction they spend several billions of dollars every year importing steel into this country. Even though there are a few local companies that are producing steel now but they cannot even meet the local demands. So we still import a lot of steel into Nigeria. She concluded by saying that Ajaokuta Steel Mill itself is mining

because you have to mine the iron ore, which is the major ingredient for steel production. We mine the iron ore at Itakpe, and of course there is a rail link that transports it to Ajaokuta. There is so much potential in mining and steel for Nigeria.

7.2 What are the problems hindering the revitalization of Ajaokuta Steel Mill?

On this, a respondent revealed that:

The Nigerian Iron Mining Company (NIOMCO) in Itakpe is still intact, there is nothing wrong with it. Itakpe is ready to supply iron ore to Ajaokuta. He revealed further that they do not have so much to do in Itakpe. Itakpe is actually good to go just a few tweaking. The minister transportation just rehabilitated the rail line that links it from Warri, of course that is at Alaja to Itakpe and to Ajaokuta. So, he believes that they are good to go as far as Itakpe is concerned. All the rest of the respondents are unanimous that the federal government has never meant it seriously to privatize Ajaokuta Steel Mill in the real sense of it. To them, the intention from the onset is to revitalize the Steel Mill in due course. Meanwhile, a respondent is of the view that the Russian government and other steel expertise countries are not comfortable in selling the Ajaokuta Steel Mill for strategic international trade and economic reasons.

7.3 What are the strategies to be adopted to ensure the revitalization of Ajaokuta Steel Mill?

A respondent is of the view that:

The federal government should adopt the model used by China in its steel industry to resuscitate the ailing company. To him, the process of resuscitating the steel company which is Nigeria's heritage was not properly structured as owners of existing steel plants were not consulted. He said, "what the Chinese people did was to adopt a policy of naturalization of the country's steel sector by making the indigenes to have 75% shares, while the government holds only 25%." This according to him, created opportunities for the local investors and ensured that the wealth remained within the country

without repatriation of capital as well as dividends. This led to the development of local skills and other multiplier effects that finally resulted in what the world is witnessing today in China. Another respondent said that "any attempt to invite foreign investors to resuscitate the Ajaokuta Steel Company would result in the foreign interest thereby depriving us of our national heritage as any proceed realized from the sales would be repatriated by such interests to their countries and would consequently have negative effects on government's policy of backward integration and corresponding objective of conserving the scarce foreign exchange with dare consequences on the current and future well-being of our economy. According to him, "it is only indigenous investors that can make it happen so that the proceeds can remain here in Nigeria and we can reinvest this into the economy. This we have all seen, was the case in the cement industry and with Nigeria now taking another giant stride in refinery and petrochemicals.

Another respondent asserts thus:

There would be no reason for the government to borrow money to bring Ajaokuta back to life. In his opinion, the country has the resources as a nation and we also have experts who can make it work. He submits that we do not need foreign investors to do it. Ajaokuta can be back again to produce machines that are needed by other steel industries in their production processes. Toanother respondent, the complex should not focus on middle-range steel production, which is massively available around Nigeria and West Africa. Rather, it should focus on the configuration of a high-class production of steel products such as slab caster, hot rolled coils and plates, and foundry for the production of the required machinery and tools in the country, since 50 per cent reauirement this high-class for configuration is already available in Ajaokuta.

While another respondent opined that;

From 2016 to 2021, the federal government had expended the sum of

N20.4 billion on the company despite being comatose. This information is on the website of the Budget Office as the yearly appropriations revealed. Meanwhile, seven of the respondents are of the view that Ajaokuta Steel Company has a problem that is internal but it is not that it cannot be revived; it can be revived. To them, the greatest problem is that people who have profited from the corruption in Ajaokuta would not allow it to function.

Discussion of Findings

Based on the views of the informants, the trajectory in the invested pyramid of literature and personal observation of the researchers, the study is of the view that the Ajaokuta Steel Company has a problem that is internal but it is not that it cannot be revived; it can be revived. And the greatest problem is that those Nigerians who have benefitted from the corruption in Ajaokuta Steel Company, would not allow it to function. This position is essential and primary to the international economic political angle associated with the reviving of the Steel Mill. In other words, the sincerity of purpose of those members of the governing elites who are currently benefiting from the comatose state of the company is a challenge to the will to revive the Steel Mill. The annual budgetary accurse to the company as stated in this study informs this position. Thus, the position of this paper is different from the views of studies such as Oluwole, (2018), Al-Amin, (2013), Ohuoma, (2019) and Eromo, (2019).

While the study of Ohuoma (2019) essentially sees the influence of the foreign capitalists as the bane of the Steel Mill, this study views it differently that oil discovery bred the complexity of abundance that created the room for the misuse of the proceeds, and the governing elites obstructed the will for genuine industrial development since the proceeds from the sale of crude oil is enough to expand their economic empire. The elite often use tools of policy inconsistency and lack of policy continuity to put the Nigerian industrial sector in perpetual crisis of purpose. Of course, this submission is obviously different from the views of Oluwole, (2018), Al-Amin, (2013), and Eromo, (2019).

Examining the elite interests that drive policy actions is central to our understanding of why certain policies like the reviving of the Steel Mill work or fail. The study reveals that these interests may not always be manifest. In spite of the efforts of Nigeria's target towards achieving the Vision 2010 and Vision 2020, the country continued to experience high industrial crisis and has not paid adequate attention to the role of elite interests in policy and decision failure. This is the angle that the findings of this study differ from previous studies on the steel mill by Oluwole, (2018), Al-Amin, (2013), Ohuoma, (2019), and Eromo, (2019). This study draws the attention of policy practitioners and scholars to the interests that underlie policies, to inform meaningful policy development like the reviving of the economically viable Ajaokuta Steel Mill. And as such, elite domination and influence over the outcomes of policy processes is widely recognized in public policy literature. Based on our review of literature on elite's policy, this study describes them as group of actors organized defined by combinations of skills, access to vital information, social status, economic resources and institutional positions, who come together through common backgrounds, coinciding interests and social interactions. Their decisions regarding a perceived public problem constitute policy. For this reason, elite interests in the policy process have come under scrutiny across sectors, including the Steel sector.

Concluding Thoughts

The study has advanced that elite interest is responsibile for the industrial crisis in Nigeria particularly the Ajaokuta Steel Mill. The study contends that power in its different forms instigated a reconfiguration of the elite groups as they engaged in the policy process. In contrast to the processes envisaged in Nigeria's formal guidance for policy-making, in practice, actors controlling the structures for policymaking had more power than the rest. Elite groups with more power (position, expertise and financial resources) were more self-interested and influential while altruistic interests tended to be pursued mostly by the less powerful elites (and some in the steel sector). In the end, policies persistently yielded incidental benefits for the Ajaokuta Steel Mill without achieving their set targets and thereby deepening the

industrial crisis in the country because iron and steel are critical to industrial development. This submission is not in line with the views of Oluwole, (2018), Al-Amin, (2013), Ohuoma (2019) and Eromo, (2019) about the state of the Ajaokuta Steel Mill.

Consequently, centralization of the policy process with exclusive participation of with the exclusion of the local communities is one of the challenges of public policy management in Nigeria. Central policy elites are organized in different formations with varying influence. The control of policy processes in Nigeria by a few bureaucrats occupying strategic positions in government departments who are loyal to political elites continues. Highly placed bureaucrats tend to have more authority, trust by the political elite and control over the policy processes and moderate participation of all actors and thereby undermining the policy of reviving the industrial sector and Ajaokuta Steel Mill in particular. This influence ranges from the location, funding and management of industries in the country. The Ajaokuta Steel Mill operating in Kogi State is prone to the influence of the structures that control the policy process through their consistent participation, technical and financial support of the owner, the federal government. The combined influence of key members of governing elites and bureaucrats of Nigerian policy processes is linked to the comatose state of the Steel Mill. Findings of this study show that the less powerful elites merely contribute ideas but cannot influence the policy process in the implementation of the decision. A key finding from this study is that the elites who influenced policies often acted in self-interest, whilst other actors had limited influence on the policy process in the implementation of reviving the Steel Mill.

It is fundamental to stress at this juncture that revamping the Ajaokuta Steel Mill project will be of great advantage to the ailing Nigerian economy as the benefits that await it are immeasurable if completed and operations commence. This is true because the nation's economy is faced with a number of crises ranging from unemployment, poverty, currency, devaluation of the increased population, insecurity of lives and property as well as political violence perpetuated by unemployed youths who are recruited as political thugs by politicians and other social vices. Therefore, the revitalization of the projects will go a long way in minimizing some of these problems. It is on this note that this paper recommends that there is the need for government to come up with workable strategy towards revamping and completing the Steel Mill which could be an economic advantage to the country.

Thus, in getting the Ajaokuta Steel Mill back on track, all hands must be on deck if the goal must be achieved. It is a project that requires huge amount of investment and a long term capital project with great potentials. The issue of lack of policy continuity which has become a common feature of the Nigerian state must be succinctly addressed if development that the country is yearning for must be attained. In that regards, this paper recommends that the government should ensure continuity of policy implementation so as to avoid wastage in the country. It recommends further that too much dependence on foreign companies to revamp the Ajaokuta Steel Mill should be minimized and the government must be committed to the successful completion of the Ajaokuta Steel Plant and by so doing, it will greatly reduce the pressure and over-burden on the oil sector.

There is also the need for effective committee to be set to oversee the revamping and operation processes of the plant so as to checkmate any conduct capable of ruining the company. It is also very fundamental for the federal government to come to terms with any foreign company that indicates genuine interest to partake in the revamping process and must do everything possible to avoid any further breach of contract.

References

- Adesina, J. O (2003), "Labour Polices of a Neo-Fuhrer State: the Nigerian Case", Annals of the Social Science Academy, Nos.14 &15, Jan-Dec., Pp49-66.
- Agbu O. (2007), The Iron and Steel Industry and Nigeria's Industrialization: Exploring Cooperation with Japan. Institute of Developing Economy, Japan, external trade organization.
- Al-Amin M.A (2013), Environmental Issues of the Ajaokuta Steel Complex in Nigeria.

- International Journal of Modern Engineering Research (IJMER).www.ijmer.com Vol. 3, Issue. 6, Nov Dec. 2013 pp-3733-3739 ISSN: 2249-6645
- Asamu, F.F, Asaleye, A.J, Arisukwu, O & Bamidele, R (2019), International Journal of Mechanical Engineering and Technology (IJMET).Volume 10, Issue 03, March 2019, pp. 120-128. Article ID: IJMET_10_03_012 Available online at http://www.iaeme.com/ijmet/issues.asp 2JType=IJMET&VType=10&IType=3I SSN Print: 0976-6340 and ISSN Online: 0976-6359
- Audu M.S. (1992), Transformation of Ajaokuta 1900-1990, unpublished M.A. Thesis Bayero University Kano
- Chen I., Chen Y. & Chen S. (2018), The strategic choice of payment method in corporate acquisitions: The role of collective bargaining against unionized workers, Journal of Banking and Finance 88, 408–422 https://doi.org/10.1016/j.jbankfin.2018.01.009
- Dauda, Y.A (2006) "Employment of Independent Arbitrators in the Management of Trade Disputes and Industrial Crisis
- Easter H. and Siemag S.M.S (2009), "Energy recovery technology for EAFs," presented at the International Convention on Clean, Green, and Sustainable Technologies in Iron and Steelmaking, Bhubaneswar, India.
- Eromo, E (2019 August 12). Nigeria's Dilemma over Failing Steel Mills. *The Africa* Report.com
- Fashina, D. (2001), "Nigerian Tertiary Education: What Future" in S. Jegede, A. Ale and E.Akinola (eds.), Nigeria's Tertiary Institution and Human Rights, Ikeja: Committee for Defence of Human Rights (CHDR), Pp.18-24

- Fashoyin, T. (1992), Industrial Relations in Nigeria, 2nd Edition, Ikeja: Longman Ltd.
- Ihuoma, C. (2019, October 23). FG budgets N3.79bn for Ajaokuta Steel Company. *Punch*.
- Matusevich M. (2003), No Easy Row for a Russian Hoe: Ideology and Pragmatism in Nigerian-Soviet Relations, 1960– 1991. Trenton: Africa World Press.
- McCarter M.U, Wade-Benzoni K., Kamal D.K.F, Bang M.H., Hyde S.J.&Maredia R. (2018), Models of intragroup conflict in management: A literature review, Journal of Economic Behavior and Organization 0 0 0, 1–22 https://doi.org/10.1016/j.jebo.2018.04.0
- Mohammed, S.A. (2008), Privatization of the iron and steel industry in Africa. Paper presented at the 8th International Arab Iron and Steel Conference, held at Doha, Qatar 17th 19th march, 2008.
- Ohimain, E. I. (2010), Emerging bio-ethanol projects in Nigeria: Their opportunities and challenges. Energy Policy.38: 7161-7168
- Ohimain, E. I. (2012), The benefits and potential impacts of household cooking fuel substitution with bio-ethanol produced from cassava feedstock in Nigeria. Energy for Sustainable Development. 16: 352 362
- Ohimain, E. I. (2013), Scrap Iron and Steel Recycling in Nigeria. Greener Journal of

- Environmental Management and Public Safety. 2 (1): 1 9
- Ohimain, E. I. and Jenakumo, C. B. (2013), Scrap metal recycling and valorization in Bayelsa State, Nigeria. The Journal of Materials Science. 119: 137 – 147
- Ohimain, E.I (2013), The Challenge of Domestic Iron and Steel Production in Nigeria. Greener Journal of Business and Management Studies ISSN: 2276-7827 Vol. 3 (5), pp. 231-240, July 2013.
- Olatunji, O.A (2018), Causations of failure in megaprojects: A case study of the Ajaokuta Steel Plant project. Front. Eng. Manag. 2018, 5(3): 334–346 https://doi.org/10.15302/J-FEM-2018011
- Oluyole F. and Agency Report (2017 December 26), Analysis: Ajaokuta: How Nigeria's largest industrial project failed. *Premium Times*.
- Otobo, D. (1983), "Strike in Nigeria: Some Considerations", The Nigerian Journal of Economic and Social Studies, Vol.25, No.3, Pp.301-318.
- Otoghile, A. I. E (2016), Crisis of Industrialization in Nigeria. Developing Country Studies. www.iiste.org ISSN 2224-607X (Paper) ISSN 2225-0565 (Online) Vol.6, No.8, 2016
- Yesufu, T.M (1982), An Introduction to Industrial Relation in Nigeria, London: Oxford University Press.