



SAHEL ANALYST JOURNALS

JOURNAL OF RESOURCES AND ECONOMIC DEVELOPMENT (JRED)

Volume 5 No.2 December 2022

**A Publication of the Faculty of Management
Sciences & Department of Economics
University of Maiduguri, Borno State, Nigeria**

CONTACT US

Faculty of Management Sciences, University of Maiduguri
Bama Road, Maiduguri
PMB 1069, Maiduguri, Borno State, Nigeria

Contact No:

Editorial: +2348067209220 or +2340802821799

Contact Email: sajredunimaid@gmail.com

Website: www.journals.fms-unimaid.ng
www.fms-unimaid.ng

Printed by Skisoft Publishing Co. Kaduna, Nigeria.
All rights reserved. Reproduction in any form is prohibited.
Copyrights @ SAJRED, 2022 (ISSN 2705 -1943)

EDITORIAL BOARD

Editor in Chief: Prof Mustapha Momoh

Department of Business Administration, University of Maiduguri

Managing Editor: Babajiddah Malah

HOD, Department of Economics, University of Maiduguri

Business Manager I: Dr Abdulkabir Adedeji Niran

HOD, Department of Economics, Borno State, University, Maiduguri,

Business Manager II: Dr Tawa Suleiman

Dept of Business Administration, University of Maiduguri

Associate Editors

Affiliation

Prof Dahiru Hassan Balami – Department of Economics, University of Maiduguri.

Prof John Naphtali – Department of Economics, Federal University Lokoja.

Prof M. I. Bazza – Department of Business Admin., University of Maiduguri.

Prof W. C. Ndubusi – Dept. of Banking and Finance, University of Maiduguri.

Prof Mohammed Madawaki – Dept. of Banking and Finance, University of Maiduguri.

Prof Yagana B.K. Imam – Department of Marketing, University of Maiduguri.

Prof Paul Mbaya -- Dept of Public Admin., University of Maiduguri.

Prof Akinniyi K. Opeyemi -- Dept of Accounting, University of Maiduguri.

Prof Fausat Fumilola Ahmed – Dept. of Economics, University of Maiduguri.

Prof Jibril Musa Talba – Department of Economics, University of Maiduguri.

Dr Muhammad Musa – Department of Economics, University of Maiduguri.

Dr Mohammed Tukur – HOD, Department of Economics, University of Maiduguri.

Dr Muhammad Othman Lawan – Dept. of Economics, University of Maiduguri.

Dr Alhaji Bukar Mustapha – Dept. of Economics, University of Maiduguri.

Dr Ummah Mani – Dept of Marketing, University of Maiduguri.

Dr Joel O. Silas -- Dept of Public Admin. University of Maiduguri.

Dr. Mansur Lubabah Kwanbo -- Dept of Accounting, Kaduna State University, Kaduna.

Dr Mohammed Audu -- Dept of Finance, University of Maiduguri.

Dr Buba Pulka -- Dept of Business Admin, University of Maiduguri.

Dr Salihu Tijani Mohammed – Dept. of Agric. Economics, University of Maiduguri.

Dr Bello M Ibrahim – Department of Economics, Maitama Sule University Kano.

Dr Adegbola Eunice – Department of Business Admin, Nat. Open Univ. of Nigeria, Abuja.

Dr Ibrahim Bakari – Dept of Economics, Modibbo Adama University of Technology, Yola.

Dr M. S. Jabo – Dept. of Agric. Economics, Usman Danfodio University Sokoto.

Dr Dabwor, T. Dalis – Department of Economics, University of Jos.

Editorial Advisers

Prof Haruna D. Dlakwa – Dept. of Public Administration, University of Maiduguri

Prof M. M. Daura – Department of Geography, University of Maiduguri

Prof Yusuf M. Yusuf – Faculty of Law, University of Maiduguri

Prof James J. Adefila – Department of Accounting, University of Maiduguri

Prof S. K. Msheliza – Department of Finance, University of Maiduguri

TABLE OF CONTENTS

1. Effect of Graduate Attachment Programme on Employment Generation in North-West, Nigeria 1 – 16
Salawu Fatau Sani, Helen Andow Afang, Ibrahim Yushau Ango & Zainab Dabo
2. Agropreneurship and Employment Generation for Poverty Reduction in Nigeria: A Study of Girei Local Government Area of Adamawa State 17 – 35
Tijani Yunusa & Maji Ugbede
3. Industrialisation and Employment Generation in Nigeria: Analysis of the Prospects and Challenges from 2010-2020 36 – 49
Aremu Nuha Salihu, Danesi Rosemary Adishetu & Omojola O. Awosusi
4. Investigating the Effect of Employees' Attitude on the Performance of Lagos State Public Sector 50 – 61
Kolawole Jayeola Asa & Mukaila Olamiku Sanni
5. Effect of Change Efficacy and Employee Engagement on Employee Performance in Selected Hospitals in Abuja, Nigeria. 62 – 76
Thomas Oyetunde Oladele, Emmanuel Abiodun Alagbe & Kadri Aliu Mukaila
6. Change Management and Organisation Performance in Nigerian River Basin Development Authority 77 – 91
Aizebeoje Joshua Aigbuduebo & Ebhote Oseremen
7. Effect of Marketing Intelligence on the Performance of Selected Manufacturing Firms in FCT-Abuja, Nigeria 92 – 109
Ibrahim, Yusuf Ohida; Kolo, Ibrahim & Mohammed, Mahmuda Khalifa
8. Determinants of Economic Growth in Sub-Saharan African Countries From 1984 to 2017 110 – 117
Usman Alhaji Usman & Sadiq Alhaji Abubakar
9. Effects of Corporate Board Characteristics and Financial Reporting Quality of Service Firms in Nigeria 118 – 131
Sinebe, Michael Tonbraladoh & Okolo, Marvis Ndu
10. Multi Objective Optimisation Strategy in Virtual Container Technology for Autonomous Cloud Services in Nigeria 132 – 140
Muhammad Tella, Kabiru Ibrahim Musa, Abdulsalam Ya'u Gital & Muktar Liman Ahmed²

INDUSTRIALISATION AND EMPLOYMENT GENERATION IN NIGERIA: ANALYSIS OF THE PROSPECTS AND CHALLENGES FROM 2010-2020

Aremu Nuha Salihu¹

Danesi Rosemary Adishetu²

Omojola O. Awosusi³

Abstract

The purpose of the study is to examine the impact of industrialisation on employment creation in Nigeria between 1986 and 2021, vis-a-vis its prospects and challenges. The study adopted a quantitative research method where secondary sources such as journals, textbooks and internet resources were utilised to access data, using both descriptive and regression analyses. Findings from the descriptive analysis showed that Nigeria's industrialisation unconventionally varies inversely with the rate of employment, whereas, it varies proportionally with unemployment rate. In addition, the regression results showed that even though the expansion of manufacturing, mining, construction and utilities industries alone cannot categorically solve the unemployment problem in Nigeria they could contribute significantly to employment opportunity in the country. As a result, the government should work to diversify Nigeria's economy away from the monolithic oil sector and toward the industrial sector in order to provide mass employment opportunities to its citizens.

Keywords: *Industrialisation, Employment Generation, Unemployment, Prospects, Challenges*

Introduction

Over the years, industrialisation has become germane for economic development across the globe. Every country of the world comprehends industrialisation as an imperative tool for not only to reduce unemployment, but to also generate employment opportunities. Industrialisation is the social and economic development process of mining, manufacturing and utility sector on an extensive scale for generating job opportunities. Athukorala, (2005) posited that industrialisation can serve as a potential force for pooling employment and

¹ **Department of Industrial Relations and Personnel Management, University of Ilorin, Ilorin, Nigeria.** nusaremu@gmail.com

² **Department of Employment Relations and Human Resource Management, University of Lagos, Akoka, Nigeria.** rosemarydanesi@yahoo.com

³ **Department of Sociology, Faculty of Social Sciences, Federal University Oye-Ekiti, Ekiti State, Nigeria.** doctorawosusi@gmail.com

consequently a mechanism for poverty reduction. Countries are likely to specialise in labor-intensive industries by diverting labour structure from the agrarian economy to a manufacturing one.

Globally, industrialisation emerged from the first transformation of pre-industrial society to industrial ones during the 18th and 19th century. This advent of industrialisation is regarded as industrial revolution. The revolution resulted in the replacement of human labour with machineries in the manufacturing process in order to achieve mass productivity (Eugene, 2015) (Eugene, 2015). However, its fruition ensued unprecedented expansion of the wealth and financial sustainability of nations. Thereby, upsurge labour and encourage proponents for larger populations and rapid demographic shift in the manufacturing operation of a society. Consequentially, people migrate from rural to urban areas in large numbers, seeking potential fortunes and employment in budding industries.

Despite the advent and prevalence of industrial revolution, Nigeria like any other developing country began to experience her own share of industrialisation at the later hours of the era. Specifically, efforts to critically necessitate industrial growth in Nigeria began posteriori to her independence with the first National development plan (1962–1968). Chimhowu, Hulme and Munro (2019) described development plan as a scheme that enumerate the main tasks of the state and society to attain balanced and sustainable development. ILO, (2018) reported that the drive for development plan is to promote sustainable development for employment generation.

The crude-oil discovery in 1956 became the major export commodity that nearly ensued total neglect for other sectors, which daunts industrial growth in Nigeria (Obi, 2012). Nigeria signifies an imagery of a developing economy. Today, large percentage of the country's GDP is accrued to agriculture which is one of the primary sectors. Whereas, industrial sector only contributes 25.7% and employs 12% of the labour workforce (World Bank, 2020). The oil and gas area play a lead role contributing up to 95% of the nation's fare income while industrial sector represents just 4% of the GDP.

Moreover, the industrial sector over time has been defective in operation and sustainability in Nigeria therefore reduces employment generation. Emmanuel and Saliu (2017) argued that the Nigeria manufacturing sector had been irresponsive even with the varieties of national development policies as a result of deregulating or over-regulating policies. This also applies to major organisations producing public utilities such as National Electricity Power Authority, Nigeria Telecommunication Company and National oil refineries (Obadan, 2004). This resulted to high-cost of production, large business funding, low employment opportunity and economic deficiency.

Notably, there is no gainsaying that employment generation is facing incredible challenge in Nigeria. Whereas, it is one of the quickest ways to address poverty and increase standard of living. Therefore, the government had overtime pursued solid ground in industrialisation with the hope to pull employment prospects. Bauer and Yamey (1972) argued that from 1945, Nigeria had registered several manufacturing industries to supply the home market in other to reduce import dependence. But then, can't this be achieved through oil? Why this much accentuation on industrialisation? Eugene, (2015) remarked that almost all developed nations are

industrialised. Meaning that, there is a close link between industrialisation and employment generation. For over 60 years now, Nigeria industrial sector vis-a-vis manufacturing, mining and utilities have tremendously suffered from poor industrial framework, bad infrastructures, economy diversification, negligence, poor technology, incapable manpower, insurgency, preference of external trade in products and unfavorable credit facilities (Ogbeidi, 2012). Therefore, modern development in Nigeria meanders in reliance and inadequacy.

However, the weakening or reduction in the number of manufacturing industries in Nigeria has led to rise in unemployment rate. As a result, the unemployment situation typically increases, so does the labour market become crowded with dependent human resources, underemployment, low expectation for everyday life, wide spread neediness and breaking down actual framework. This implies that there are not growth propelling resources at the disposal of manufacturing firms in Nigeria over the years and tends to deteriorate their growth mechanisms. These are the problems that necessitated this study. This study therefore, aims to discuss the impact of industrialisation on employment generation in Nigeria, having thought about basically its possibilities and difficulties.

Literature Review

This chapter reviewed scholarly literature from various studies that helped in explaining more on the concept of industrialisation and employment generation in Nigeria as well as the factors hindering industrialisation in the Nigeria labour market settings. At the end of the review, a reader is expected to understand the impact of industrialisation on the employment level in Nigeria.

Concept of Industrialisation

Hewitt et al, (1992) defined industrialisation from three axioms as either the making of industrial products, or as an economic sector that include mining, public utilities and manufacturing as well as the organisation of industry towards economic advancements. Nzau, (2010) described industrialisation as a marked departure from a subsistence agrarian economy towards a mechanised system of production. Eugene (2015) reported that industrialisation is a system for renovating an extraction-based cheap into industrial economy. Simandan, (2020) posited that industrialisation is a generic or common term for sets of economic and social activities and their dynamism to the discovering of more resourceful ways for the conception of value.

Industrialisation can be defined is the social or economic transition from a non-industrial society to a mechanised formal economy toward high production. Industrialisation emerged as a proponent aimed at formal and mechanised societal and economic structure. Afterwards, its contributions to negative environmental conditions such as pollution, increased greenhouse, gas emission and global warming became obvious. However, the rapid industrial development resulted to employment opportunities in businesses and manufacturing industries (Ogbeidi, 2012). In an industrial society, industrialisation absorbs unemployed and underemployed individuals, thereby increasing the income of the community and better utilisation of manpower. More so, it provides capital goods (machines, tractors, printers) to additional sector of the economy.

Ostry, Hershler, Kelly, Demers, Teschke and Hertzman (2001) argued that industrial sector in Nigeria comprised of mineral mining, manufacturing and facility or utility sector. The mining industry extract or remove metals and mineral resources from the earth. The products of mining sector include gold, salt, coal, metals, tin, limestone, lead, zinc, gemstones, rock, etc. (Godwin, 1980). The manufacturing sector as well comprised various capital and consumers producing firms such as the food industry, textile and fashion industry, paper industry, organic industry, leather and footwear, wooding and furniture, metal and mechanical industries. The public-utility sector provides necessary and essential amenities to the entire public. Public utilities include water, electricity distribution, sewage services, dams, natural gas and transportation etc. Traditionally, the utility area is controlled and overwhelmed by the Nigerian government. In the recent years, it has however been defective and redundant in its operations due to negligence and corruptive traits of Nigeria government, and thus begot to the private sector for proper maintenance (Obadan, 2004).

Challenges of Industrialisation in Nigeria

There is no question that industrialisation allows for a considerable level of employment creation. However, to every rule, there is an exception. Mining and manufacturing in Nigeria had been defective based on identified constraints. Notably, poor basic infrastructures have always been the major setback to expansion and specifically to industrialisation in Nigeria. The country lacks adequate utilities and infrastructures like adequate transportations, electricity and good railway facilities. As a result, companies spend enormous amount on cost of production. This huge production costs hinders the progress of the sector and discourages both local and foreign potential investors (Iwayemi, 2011).

Another militating factor is the production of substandard products. Most of the goods are made in Nigeria with the perceived as substandard production. Thus, induces preference of Nigerians for imported products instead of locally made (Algoni, 2016). Moreover, lack of technical know-how affects the industrial growth. In crux, this problem is worsened by the education and literacy state in the nation. Nigeria educational institutions lack resourceful funding which largely reflects on graduates' value and experience. Therefore, Nigeria lacks skilled manpower essential for rapid industrial growth. Another major hindrance to industrialisation in Nigeria is lack of credit facility to industrialists. Algoni, (2016) revealed that many industrialists in Nigeria desire a sense of absolute ownership. Most industrialists do not like sharing business gains with other stakeholders and thus, become unwilling to share ownership with investors to accumulate enough capital which is perilous to business survival. This leaves most companies with insufficient funds to operate. Furthermore, the level of insecurity marked by armed bandits, Niger Delta militants and in particular, Boko Haram insurgents have till date rendered the North east of Nigeria an economically frozen zone. These problems discouraged both local and international investors from investing in Nigeria.

The Nigerian government agenda towards development and growth has overtime sustained futility in making substantial and significant progress through inept strategies and poor execution (Aliya & Odoh, 2016). Some policies made were not favorable to indigenous and even foreign companies which consequently

discourage foreign direct investments. From the beginning of Nigeria's freedom, up to fifteen (15) administrations with military and civilian inclusive, have attempted range of industrialisation policies centered on the authorities of those in power and their advisors. Meanwhile, the result of these policies depicts massive failure and poor implementation (Mike, 2012). In support of this, the executive secretary of national association of SMEs in Nigeria Eze Ubiji, stated in 2016 at the NOI polls "stakeholders dialogue on manufacturing sector in the Nigeria" that up to 222 manufacturing firms in Nigeria have either collapsed, ailing or producing below their capacity.

Employment Generation in Nigeria

Employment contract binding on an employer and employee with treaty to trade labor for wages or salary. Aliyu, (2019) defined employment as an agreement between individuals or groups on specified service to be carried out by an employee, while the employer compensates with pay or in kind. An employed person engaged in labour service is termed an employee. Employment generation is the process of ensuring the citizens of a country that are eager and ready to work are at work, or with jobs but not necessarily at work, within a reference period (Aliyu, 2019). In Nigeria, efforts have been made to ensure a wide range of endeavors targeted towards the generation of employment through industrialisation.

The Nigeria government since independence had embarked on sequence of programs to empower youth and thereby reduces unemployment in the country. Such programs include: NDE (National Directorate of Employment), NAPEP (National Poverty Eradication Program), YEDI (Youth Empowerment and Development Initiative), AYEN (African Youth Empowerment & Development Nigeria), YEN (Young Entrepreneurs of Nigeria), YEP (Youth Empowering People), You-Win (Youth Enterprise with Innovation in Nigeria), SURE-P, Subsidy Reinvestment and Empowerment Program), Youth Entrepreneur Support Program (YES-P) and recently the N-Power program among others. Nonetheless, it should be noted that all these programs have always been temporary in nature and as a result, weak to control unemployment. They dynamically swift to change of administration, thereby not leading to marked translation into job creation (Tabiu, 2018).

Industrialisation and Employment Generation in Nigeria

Generally, as industrialisation develops, more and more factories and companies were built with a long line of jobs and positions made available. Indeed, employers of labour, demands manpower acquisition from labour market by exchange of labour supplies to enhance employment opportunities in the economy. As a reason, Algoni (2016) asserted that Industrialisation brings about production of goods in large scale. To achieve this, it requires employing more skilled and unskilled labour which would consequently bloom the economic growth. This of course, encourage the employ of proficient hands in the manufacture process.

Reported from Ayodele and Falokun (2003), industrialisation helps absorb and utilise manpower in the economy by a means of large employment creation. Hence, it aids to curb the adverse of unemployment by making job available to the people and nourishing the economy. Meanwhile, the industrial sector not alone enhances the standard of living but significantly contribute directly to the nation's

economic development via income tax, enhance of advanced technology, goods and services production and defendant of GDP (Ostry, Hershler, Kelly, Demers, Teschke, Hertzman 2001).

Therefore, it is conventionally deduced that the establishment of more and more industries would reduce joblessness rate in the country. Besides when more people are engaged in production activities, poverty and crime will reduce in the nation. Sooloo, (2015) posited that the involvement of the industrial sector to the economy cannot be emphasised in building grounds for development through employment potentials and financial impact on the economy. Undoubtedly, the more a country industrialises, more labour would be employed to meet the production capacity needed.

Prospects of Industrialisation in Nigeria

The prospect of industrialisation in the country cannot be overemphasised. Government has embarked on numerous methods of empowerment without focusing on the development of industrial sector. But then, yields futility as poverty/unemployment remained a theme of the day in the Nigeria economy. Indeed, varying numbers of prospects await a country that subscribes to industrialisation.

One of the vital benefits of industrialisation particularly of interest to the present study is employment generation. The deliberate motivation for industrialisation in an economy begs for a huge manpower to enhance mass production. Blomstrom, Lipsey and Zegan (1994) uncovered that industrialisation through foreign investors can apply a constructive outcome on a nation's equilibrium of installment and economic development rate.

Industrialisation leads toward massive production of goods and services which enhance exportation and international business. More so, improved living standard/poverty reduction is another prospect associated with industrialisation in Nigeria. Employment growth can be considered a poverty alleviation tool through which will create an avenue for perfect market competition towards public advantage (Algoni, 2016). As detailed by Algoni, (2016) the advancement of the manufacturing sector would likewise excite the advancement of different areas. This is possible because the processing sector produces goods for the agricultural, petroleum and educational sectors. And thus, industrialisation reduces dependence on other countries by a means of effective human capital utilisation development efficient productivity. Abdullah, (1998) opined that employers of labour aims to acquire from the labour market valuable and experienced individuals. Thus, individuals in the labour force empower their potential development through education and skillful entrepreneurship development.

Theoretical Framework

Cerschhenkron's industrialisation theory

Cerschhenkron, (1962) posited that economic boom, technical innovations, industrialisation, and all other environmental factors do not trail a linear process. "Economic backwardness in historical perspective". He stated that primitive country does not necessarily need to pass through agriculture before becoming industrialised. Cerschhenkron revealed that industrial growth can assist the most retarded economies through technologies and existing body of knowledge to improve their economies. As a result, they utilise at ultimate the resource and human capitals of their nation

effectively and efficiently by providing sufficient job for all. As stated by Cerschenkron, development is an ongoing process that all countries go through it on a daily basis. Although, he didn't specify an end limit to economic expansion. However, he regarded economic development, specifically attainment of industrialisation as not a structured or procedural step, but one that can be achieved with big leaps even from the most primitive of societies.

Empirical review

Earlier before now, various studies have been conducted with focus on industrialisation in Nigeria and employment generation in the nation. In relative comparison with other studies, Bolaky (2011) sums up the greater part of the hypothetical and experimental contentions for industrialisation. He expressed that industrialisation and per capita pay in agricultural nations have positive connection. In addition, experimental confirmations showed that mechanical area require higher minor result of work than in farming area thus the shift from horticultural area to modern area sure improve greater efficiency in the economy. Kaya, (2010) researched the impact of the most recent flood of financial globalisation on assembling work in non-industrial nations. The result fixated on old style banters on the advantages of industrialisation and how this influences agricultural nations. It received a thorough dataset on 64 non-industrial nations from 1980 - 2003. The outcomes explained that assembling work expanded in most developed nations.

Kaya, (2010) researched the impact of the most recent economy globalisation on manufacturing employment on developing nations. The examination fixated on old style banters on the advantages of industrialisation and how this influences agricultural nations. It received a thorough dataset on 64 developing nations from 1980 - 2003. The outcomes explained that manufacturing employment expanded in most agricultural nations.

Tran and Doa (2010) introduced a paper on the impacts of industrialisation on economic and work structure during the economic change in Vietnam. The nation has gained a huge headway in changing its economic design. All things considered, the industrialisation methodology which has prompted the fast economic construction change in Vietnam during the most recent twenty years neglected to move excess country laborers from the rural workforce to non-rural jobs.

Algoni, (2016) led a clear report on the difficulties and possibilities of industrialisation as hindrance to economic improvement in Nigeria. He focused on that over the most recent fifty years, many agricultural nations in Africa, Europe, North and South America have changed their economies through fast industrialisation. The paper investigated the way that Nigeria is one country that has various difficulties yet has the extraordinary potential for industrialisation, which ought to be completely utilised.

David, Noah, and Agbalajobi (2016) conducted an investigation on the commitment of mining area to economic advancement in Nigeria within 1960 to 2012. The study adopted an error correction model (ECM) for researching the short and long run input of mining area to the Nigeria financial turn of events. Consequence of discovering uncovered that the worth of mineral assets affects Nigeria economic turn of events. The study reasoned that Nigeria needs to critically foster her

stupendous mining possibilities to expand the economy for fast economic development and advancement.

Methodology

The study employed both the descriptive and multiple regression analysis for the analysis of the data collected on employment and components of industrial sector in Nigeria. The descriptive analysis involves the use of charts and graphs to show the industrial growth, employment as well as unemployment in Nigeria, while the multiple regression is used to examine the impact of the components of industrial sector (Mining and Quarrying, Manufacturing, Construction, Electricity, Water, Sewage and Waste Management) on employment in Nigeria. The adapted model is based on the reviewed theories and empirical exercises in estimating the impact of the explanatory variable (Mining and Quarrying, Manufacturing, Construction, Electricity, Water, Sewage and Waste Management) on the explained variable (Employment). Therefore, the model is stated as follows:

$$TEM_t = \beta_0 + \beta_1 EAO_t + \beta_2 WSW_t + \beta_3 CON_t + \beta_4 MAQ_t + \beta_5 MAN_t + \mu_t \dots\dots\dots (1)$$

where TEM is the total employment (expressed as a % of total population), EAO is the value of electricity, gas, steam and air condition (₦' Billion), WSW is the value of water, sewage and waste management (₦' Billion), CON is the value of construction (₦' Billion), MAQ is the value of mining and quarrying (₦' Billion) and MAN is the value of manufacturing (₦' Billion), $\beta_1 - \beta_5$ are the coefficients of the explanatory variables, β_0 is the intercept and μ is the error term. Based on the specified model, based on the theoretical and empirical review, the a priori expectations of each of the parameters of the model are expected to be positive.

The population comprised of the time series secondary data generated from the National Bureau of Statistics (NBS, 2020) which spanned across the period of 12 years on the Industrial Growth, employment and unemployment rate in the Mining, manufacturing & utilities sector of Nigeria. Also, data on the explained (employment) and explanatory variables (Mining and Quarrying, Manufacturing, Construction, Electricity, Water, Sewage and Waste Management) are sourced from the Central Bank of Nigeria (CBN, 2022) and World Bank's World Development Indicators (2022) from 1986 – 2021. The justification for the choice of a secondary data is because the resource materials are sufficient to reveal the notable interaction of the variables under investigation (Saunders, Lewis & Thornhill, 2009). While the period covered is justified by the availability of the data most especially on the variables of interest.

Besides, this source of data saves time, fund and provides a researcher with ample breadth of required information. The data collection method chosen is influenced by the nature of the variable quality of interest. On the course of analysis, descriptive analysis (table, bar-graph and percentages) and multiple regression analysis were used to achieve the objective. Thus, observations were made to depict the emerging patterns and trends of each of the dimensions of industrial growth and employment situations in Nigeria within the stated period.

Data presentation and Analysis

This section presents the result of the analysis of the acquired data from the Central Bank of Nigeria, 2020. The trajectory of industrial growth as represented by the manufacturing sector in Nigeria is revealed in table 1 below:

Table 1: Industrial Growth, Employment and Unemployment Rate in Nigeria 2010-2020

Years	Industrial Growth % (Mining, manufacturing & utilities)	Employment rate %	Unemployment rate %
2010	1.3	94	9.65
2011	17.8	90.5	9.71
2012	13.8	90.95	9.75
2013	21.8	92.18	9.84
2014	14.7	93.6	12.62
2015	-1.5	89.6	16.30
2016	-4.4	85.8	20.67
2017	1.9	83.5	19.96
2018	1	77.5	19.68
2019	-4.2	76.9	19.58
2020	1.6	68.7	33.50

Source: Central Bank of Nigeria, 2020.



Source: Central Bank of Nigeria, 2020

Figure 1: Industrial Growth versus Employment and Unemployment rate in Nigeria

It is evident from Figure 1 that there was an inverse relationship between industrial growth and employment rate in Nigeria from 2010-2020, while unemployment maintained positive influence with industrial growth overtime. This was illuminated from the above table with the industrial growth ranging from 1.3%

in 2010 to 17.8% in 2011. The growth ensued but a negative impact on employment rate to 90.5% from 94% in 2010 while unemployment increases alongside. Afterwards, the fall under industrial growth in 2012 to 13.8% soar up employment rate to 90.95% with simultaneous fall in unemployment to 9.75%. The period of 2013 to 2019 staged the lowest rate of industrial growth in the nation owing to the force of recession where the sector recorded -1.5% deceleration in 2015 and the lowest point of -4.4% in 2016.

Unemployment followed the trend, while employment rate increases till 2020 before damage. However, 2020 marks a positive impact on industrial growth to 1.6% as well as unemployment to 33.5%. From the above illustration, Nigeria has been experiencing fluctuation in Industrial growth with significant correlation to the employment rate between 2010-2020 which occurred as a result of inconsistency and improper implementation of Industrial policy.

Table 2: Impact of Industrialisation on employment in Nigeria

Explained Variable: Total Employment (TEM)			
Variables	Coefficients	t-value	p-value
Constant	53.802	469.27	0.000
EAO	0.009	4.58	0.000
WSW	-0.050	-7.84	0.000
CON	0.001	5.62	0.000
MAQ	0.001	4.10	0.000
MAN	0.004	3.20	0.003
R-square	0.953	-	-
F-stat.	122.21	-	0.000

Note: EAO is the value of electricity, gas, steam and air condition, WSW is the value of water, sewage and waste management, CON is the value of construction, MAQ is the value of mining and quarrying and MAN is the value of manufacturing.

Source: Authors' Computation.

The regression result from Table 2, the evidence clearly shows that the coefficients of the value of electricity, construction, mining and manufacturing are negative and statistically significant while only water, sewage and waste management is negative but statistically significant. This means that the electricity, construction, mining and manufacturing sectors have positive effects on the employment generation in Nigeria while water, sewage and waste management has negative effect on employment generation. The observed effects of electricity, construction, mining and manufacturing sectors are in conformity with the a priori expectations and they are also in line with the empirical findings from the previous studies, including those reported by Kaya (2010), David, Noah, and Agbalajobi (2016) among others, while the observed effects of water, sewage and waste management contradict the a priori expectations. This implies that a unit increase in the value of electricity, construction, mining and manufacturing sectors cause the employment generation in Nigeria to increase by 0.009, 0.001, 0.001 and 0.004 percent respectively. While a decline in the value water, sewage and waste management sector causes the employment generation to increase by 0.050 percent.

The value of the R square in Table 2 is 0.953. This implies that the explanatory variables (Mining and Quarrying, Manufacturing, Construction,

Electricity, Water, Sewage and Waste Management) cause 95.3 percent variations in the employment model. Also, the value of F-statistic is 122.21 with the p-value of 0.000. The overall significance of the explanatory variables to employment generation is tested through the F-statistic. The null hypothesis of the tests is that Mining and Quarrying, Manufacturing, Construction, Electricity, Water, Sewage and Waste Management are not jointly significant to employment generation in Nigeria. Since the p-value is less than 5 percent significance level, this study therefore rejects the null hypothesis that the overall models are not statistically significant. Therefore, Mining and Quarrying, Manufacturing, Construction, Electricity, Water, Sewage and Waste Management fit the model perfectly for employment generation in Nigeria.

Discussion of Findings

Across the globe, the study of industrialisation has been centered on economic growth and development. However, this study is of the opinion that economic growth can be measured from employment rate as this may reduce poverty and increase the citizenry's standard of living. However, consistent growth in industrialisation will not only generate jobs but also enable agriculture products to be useful as raw materials. Going by the economic trend in Nigeria, industrial growth was estimated 17.8% in 2011, critically higher than 1.3% in 2010 as a result of the oil boom and flourishing economy. Despite the surge, employment rate in 2011 dropped to 90.5% from 94% in 2010 due to the pressure on the formal sector from large urbanisation leading to rise of 9.71% in unemployment rate. During President Goodluck Jonathan led administration, industrial rate fluctuated within 2012, 2013 and 2014 due to government policies such as Structural Adjustment Policy (SAP) which reduced purchasing power, therefore, most Nigerians settled for imported and fairly used product (Chete, et al. 2014). During this period, industrial growth fell in 2012 to 13.8% and rose to peak in 2013 at 21.8% and back to 14.7% in 2014. Meanwhile, employment marginally rose from 90.95% to 92.18% and 93.6% within these years as a result of subsequent extension in labor force (Kabiru & Mohammed, 2020). In the later days of 2015 and 2016, industrial growth at (-1.5% and -4.4%) were not encouraging, subsequent to the fall in crude-oil earning and unanticipated inflation. Certainly, hire rate reduced to 89.6% and 85.8% due to technical recession. Thus, unemployment sprang up from 16.3% to 20.67% within these years.

After the industrial slump in 2016, industrialisation witnessed an upturn of 1.9% in 2017 as a result of the present administration effort, led by President Muhammad Buhari to diversify the economy from monotonous crude-oil based to agrarian sector. However, unemployment on the other hand, fell by 0.71% while employment rate trends similar pattern. Notably, the year 2018-2019 was not much different from precedent years, when industrial growth pulled back to 1% and -4.2% respectively. Whereas, employment and unemployment rate thread equivalent direction with employment at (77.5% and 76.9%) and unemployment at 19.68% and 19.58%. This trend sustained due to poor planning, corruption and misguided policies of the current administration.

In the first quarter of 2020, the industrial growth went up by 5.6% as a result of the high availability of finance and technological development such as loan encouragement programs and various SME's supportive policies. However, the

general lockdown due to the Corona virus pandemic in the early 2020 brings a negative impact on the employment rate to 68.7%, while unemployment progressed to 33.5%. Furthermore, the current Covid-19 pandemic has devastated the industrial growth in the nation. Which as a result, Nigeria witnessed a high rate of structural unemployment till date? Notwithstanding, there are several policies engaged and executed by the various administration to improve industrialisation especially between 2015 till date, yet industrial growth has not yielded a milestone development. To this end, the study revealed that industrial growth maintained a significant impact on both employment and unemployment trend in Nigeria within a time frame of 2010-2020.

In addition, the empirical results from the study suggests that electricity, construction, mining and manufacturing sectors all have the potential to improve employment generation in Nigeria while water, sewage and waste management has negative prospects of improving employment generation in Nigeria.

Conclusion and Recommendations

Industrialisation has become imperative to commercial building and employment generation in every nation. However, industrial growth in Nigeria has not led to the necessary and expected employment generation in Nigeria. Inside the time of 2010-2020, study showed that the Nigeria industrialisation unpredictably fluctuates contrarily with the pace of work, while, it differs relatively with rate of employment. The study concluded that the expansion of manufacturing, mining and utilities industries alone cannot categorically solve the unemployment problem in Nigeria but could contribute significantly to employment opportunity in the country. Therefore, to achieve a stable employment generation in Nigeria, the paper recommends as follows:

- i. The government should strive towards varying the economy from monolithic oil-sector to industrial sector in order to give room for mass employment opportunities to citizenry.
- ii. Government should provide adequate infrastructures such as electricity supply, good roads and railway service among others. This will go a long way to enhance production proficiency and industrial development to boost employment creation.
- iii. Nigeria must endeavor to follow economic improvement through other sectors such as Mining and Quarrying, Manufacturing, Construction as well as agrarian sector to back the industrial sector which, within the long-run, will amount to high employment opportunities.

References

- Abdullah, M. (1998). *The impact of industrialisation on human resource development in Malaysia*. <http://lst-iiiep.iiiep-unesco.org/cgi>.
- Algoni, U.S. (2016). Industrialisation and economic growth: Analyses using crude petroleum and natural gas manufacturing, and solid minerals. *International Journal of Scientific and Research Publications*, 6, (9); 406-416.

- Aliya & Odoh (2016) Impact of industrialisation in Nigeria. *European Scientific Journal* 12, ISSN 1857- 7431 328
- Aliyu, U. L. (2019). Impact of employment on economic growth and development. *International Journal of Economics and Business*, 5, (2); 102 – 109
- Athukorala, P. (2005). Outward-oriented policy reforms and industrialisation in Sri Lanka. *Economic Papers*, 26, (4); 372-391.
- Ayodele, A. I. & Falokun, G. (2003). *The Nigerian economy: structure and pattern of development*. JODAD Publishers.
- Bauer, P., & Yamey, B. (1972). Industrialisation and development: The Nigerian experience. *The Economic History Review*, 25(4), 674-689.
- Blomstrom, M., Lipsey, R., & Zegan, M. (1994). What explains developing countries growth? *NBER Working Paper*, 4132.
- Bolaky, B. (2011) The role of industrialisation in economic development theory and evidence. Economic Development in Report 2011, United Nations Industrial Development Organisation.
- Cerschhenkron, A. (1962). *Economic backwardness in historical perspective*. A Book of Essays Cambridge, MA Belknap Press of Harvard University Press.
- Chete L. N., Adeoti, J. O., Adeyinka, F. M. and Ogundele, O. 2014. “*Industrial development and growth in Nigeria lessons and challenges*”. Learning to Complete, Working Paper.
- Chimhowu, A.O., Hulme, D. & Munro, L.T. (2019). The ‘new’ national development planning and global development goals: Processes and partnerships. *World Development*, 120, (2019); 76-89
- Central Bank of Nigeria CBN, (2020). CBN Economic Report, May 2020.
- David, O., Noah, A. & Agbalajobi, S. (2016). An empirical analysis of the contribution of mining sector to economic development in Nigeria. *Khazar Journal of Humanities and Social Sciences*, 19, (1); 88-106.
- Emmanuel O.O. & Saliu W.O. (2017). Hazards of manufacturing sector and economic growth in Nigeria. *International Journal of Social Sciences, Humanities and Education*, 1, (1); 1-16
- Eugene, M. (2015, December 22). Problems and prospects of industrialisation in Nigeria (Blog post). https://www.google.com.ng/search?redir_esc
- Godwin C.N. (1980). *The Nigerian Coal Corporation: an evaluation of production performance within 1960-1987*. Quantitative Economic Research Bureau, Nigeria.

- Hewitt, T. & Wiold, David (1992). *Industrialisation and development*. UK: Oxford University Press. [http://www.amazon.com/Industrialisation-Development-Tom Hewitt/dp/0198773331](http://www.amazon.com/Industrialisation-Development-Tom-Hewitt/dp/0198773331)
- International Labour Office-ILO (2018). *World employment and social outlook: Trends 2018*; International Labour Office: Geneva, Switzerland.
- Iwayemi A. (2011). *Oil and the macroeconomy: Empirical evidence from oil exporting African countries*.
- Kabiru S.M. & Mohammed N. (2020). Impact of population growth on unemployment in Nigeria: Dynamic OLS Approach. *Journal of Economics and Sustainable Development*, 10, (22).
- Kaya, Y. (2010). Globalisation and industrialisation in 64 developing countries 1980-2003. *Social Forces*, 88(3): 1153-1182.
- Lewis, W. (1954). Economic development with unlimited supplies of labour. *Manchester School*
- Mike D., 2012. New challenges for industrial policy in Nigeria. *Universal Journal of Management and Social Sciences* Vol. 2(7).
- Nzau, M. (2010). Africa's industrialisation debate: A critical analysis. *The Journal of Language, Technology & Entrepreneurship in Africa*, 2, (1); 146-165
- Obadan, M.I. (2004). Privatisation of public utilities in Nigeria. *CBN Economic and Financial Review*, 42, (4); 55-76.
- Obi I. (2012). Nigeria and the challenge of industrial development: The new cluster strategy. *African Economic History University of Wisconsin Press*, 37, (2009); 151-180
- Ogbeidi, M.M. (2012). Political leadership and corruption in Nigeria since 1960: A socio economic analysis. *Journal of Nigeria Studies*, 1, (2); 1-25
- Ostry, A.S., Hershler, R., Kelly, S., Demers, P., Teschke K. & Hertzman, C. (2001). Effects of de-industrialisation on unemployment, re-employment, and work conditions in a manufacturing workforce. *BMC Public Health*, 1, (15); 1-11
- Simandan, D. (2020). Industrialisation. *International Encyclopedia of Human Geography*, 2, (2020); 255-260
- Tabiu, A. (2018). Counting the cost of policy inconsistency in Nigeria: The case of privatisation policy. *Public Policy and Administration Research*, 3(4); 30-34.
- Tran, T. & Doa, T. (2010). Industrialisation, economic and employment structure changes in Vietnam during economic transition. *Munich Personal RePEc Archive*. <https://mpra.ub.unimuenchen.de/26996/www.tradingeconomics.com/centralbankofnigeri>