



**FEDERAL UNIVERSITY OF TECHNOLOGY
MINNA**

**THE IMPORTANCE OF THE SMALL AND
MEDIUM - SCALE INDUSTRIES IN NIGERIA**

By

ENGR. PROFESSOR HENRY DAYO OLUSEGUN

*B.Sc (London), M.Tech (Brunel, U.K), PhD (Brunel)
Professor of Mechanical Engineering*

INAUGURAL LECTURE SERIES 38

12TH NOVEMBER, 2015



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INAUGURAL LECTURE

Unto the LORD be all the glory for He has done all things pertaining to my life so excellently well. Thanks be to the LORD ALMIGHTY!

Courtesies

The Vice-Chancellor,
Deputy Vice-Chancellors (Academic and Administration),
Registrar,
Other Principal Officers of the University,
Dean School of Engineering,
Deans of Other Schools and Postgraduate School,
Professors and other members of the Senate,
Head of the Department of Mechanical Engineering,
Head of Other Departments,
My Academic Colleagues,
The Congregation and Other Staff,
My Lords Spiritual,
My Special Guests, Friends and Well-Wishers,
Gentlemen of the Print and Electronic Media,
Great Futminnaites,
Ladies and Gentlemen.

It is by the Lord's grace that I stand before you today the 12th of November 2015 to present the 38th Inaugural Lecture of this University.

Introduction

When at creation God said, "*Let there be Light*", and there was light, a chain of regenerative vibratory waves were set in motion, which are inexhaustible. Many marvelous and wonderful things came into existence of which the human being was the most

outstanding miracle of all. There was a release of power in the creation of things around us which no matter how hard engineers and scientists tried they cannot fully understand. The sensitive ones among us just knew that the sinusoidal waves set out at creation has never stopped propagating themselves. As a matter of fact, it has formed a "God's Cloud" of inventions into which the fortunate ones among us have ventured into occasionally and brought forth designs of machines and utilities. Today, many are of the belief that there is no invention that is new, but had once been produced. This is very likely since our God, the creator of all things had perfected all that man will need at creation and deposited all in "God's Cloud". We see a poor copy of this today in the "Computer Cloud", which is a universal data storage bank for every computer user, instead of the internal and external hard disc presently in use in the developed countries.

Therefore as a manufacturing (production) engineer, I have not been surprised at the inspiration that came in a vision or a flash before each machine I had designed and fabricated. I will mention some of these machines later which are specifically for medium and small scale industries, the area of my specialization.

Nigerian Industries

Since my area of specialization is in industrial production, I shall mention some pertinent information about Nigerian industries. The Nigerian Industries are clearly defined by the CBN into the category of Small, Medium and Large scale industries. There is at present no clear cut definition for Small, Medium and Large scaled industries in Nigeria. However, CBN in their N200b credit guarantee scheme defined industries as stated below:

A Small and Medium Scale Enterprise (SME) is an enterprise that has asset base (excluding land) of between N5million – N500

million and labour force of between 11 and 300. A broader definition that can be found in the archives of the CBN defines it as follows:

* **Micro/Cottage Industry**

An industry with a labour size of not more than 10 workers, or total cost of not more than N1.50 million, including working capital but excluding cost of land.

* **Small-Scale Industry**

An industry with a labour size of 11-100 workers or a total cost of not more than N50 million, including working capital but excluding cost of land.

* **Medium Scale Industry**

An industry with a labour size of between 101-300 workers or a total cost of over N50 million but not more than N200 million, including working capital but excluding cost of land.

* **Large Scale**

An industry with a labour size of over 300 workers or a total cost of over N200 million, including working capital but excluding cost of land.

Industrial Production in Nigeria was seen to have increased by 0.18 percent in the fourth quarter of 2014 over the same quarter in the previous year. It averaged 2.37 percent from 2007 until 2014, when it reached an all time high of 9.35 percent in the fourth quarter of 2011 and a record low of -1.18 percent in the first quarter of 2009. Industrial production in Nigeria is quantified as the output of businesses from the sectors of manufacturing, mining and utilities. When the industries are graded from the largest by value of annual output to the smallest they rank as follows: crude oil, coal, tin, columbite; rubber

products, wood; hides and skins, textiles, cement and other construction materials, food products, footwear, chemicals, fertilizer, printing, ceramics, steel.

Nigeria Main Industry:

Oil and natural gas extraction and supply controls the **Nigerian industry sectors**. The oil sector generates about 30% of the GDP and accounts for 90% of the total export volume. The non-oil sectors are handicapped by lack of infrastructure and bad management. Before the mid 20s, Nigeria's industrial sectors were mostly engaged in agricultural production. Agriculture and mineral resources, other than crude oil drove the economy. However, the oil boom of the 1970s changed matters. The oil sector became the chief support of the economy. The government neglected agriculture and non-crude oil industrial sectors. Many people moved from the rural areas to the urban centers seeking employment and better living standard. Agriculture and the relating industries were neglected and there was massive unemployment. The oil and natural gas sector is the largest Nigeria industry. By the 2005 figures, it accounted for more than 90% of the annual national production and generated more than 80% of the government revenues. Nigeria produced 2.169 million barrels per day (2007 statistics). In terms of oil export volumes, the country ranked 8th in the world. The Nigerian National Oil Corporation (NNOC) regulates the Nigerian oil sector. It is a member of the Organization of Petroleum Exporting Countries (OPEC). Many reforms have been undertaken to improve the performance of the oil sector and many more are yet to be implemented. In order to pursue a long-term development, the government has to strategically plan to improve the non-oil industries in the nation.

Other Industrial Sectors in Nigeria are:

Mining: - Beside the non-crude oil sector, Nigeria has significant reserves of other minerals like coal, iron, gold, uranium and tantalum. The manufacturing, construction and chemical sectors are also showing improvement after the 2005 economic reforms.

Telecommunication: - Following the economic reforms of 2005, new emphasis were laid on improving the telecommunication sector. The Nigeria Communications Commission was given the responsibility to develop the mobile and internet communication systems in the country.

Nigeria GDP 1960-2015

The Gross Domestic Product (GDP) in Nigeria was worth 568.51 billion US dollars in 2014, which represents 0.92 percent of the world economy. The lowest record of GDP for Nigeria was 4.20 Billion USD in 1960, but reached an all time high of 568.51 Billion USD in 2014.

Actual	Previous	Highest	Lowest	Dates	Unit	Frequency
568.51	514.97	568.51	4.20	1960 – 2014	USD Billion	Yearly

The gross domestic product (GDP) is defined as the total expenditures for all final goods and services produced within the country in a stipulated period of time. Table 1 provides the latest reported value between 1960-2014 for Nigeria GDP, GDP annual growth rate, and at constant prices, GDP per capita, gross fixed capita formation, GDP per capita PPP, GDP contribution of all the industrial sectors and utilities. Content for - Nigeria GDP - was last refreshed on Wednesday, September 2, 2015.

Table 1: GDP of Nigeria and Industries between 1960-2014

Nigeria GDP	Last	Previous	Highest	Lowest	Unit	
GDP	568.51	514.97	568.51	4.20	USD Billion	[+]
GDP Growth Rate	2.57	-11.57	8.99	-11.57	Percent	[+]
GDP Annual Growth Rate	2.35	3.96	8.60	2.35	Percent	[+]
GDP Constant Prices	16463341.91	16050601.38	18150356.45	56260.04	NGN Million	[+]
GDP per capita	1091.64	1055.84	1091.64	468.10	USD	[+]
Gross Fixed Capital Formation	2780352.23	2793779.10	2805531.46	17236.65	NGN Million	[+]
GDP per capita PPP	5606.56	5422.69	5606.56	2739.59	USD	[+]
GDP From Agriculture	3477845.24	3176598.13	4655322.16	2594759.86	NGN Million	[+]
GDP From Construction	740204.22	697366.62	740204.22	369190.91	NGN Million	[+]
GDP From Manufacturing	1829246.64	1637067.07	1829246.64	875408.17	NGN Million	[+]
GDP From Mining	1637476.71	1391091.74	3083257.13	1391091.74	NGN Million	[+]
GDP From Public Administration	420192.52	389597.47	614330.87	389597.47	NGN Millions	[+]
GDP From Services	6200866.06	5984386.62	6864557.92	4564086.31	NGN Millions	[+]
GDP From Transport	200076.31	166402.03	219878.67	144848.60	NGN Millions	[+]
GDP From Utilities	86681.88	78894.38	110386.78	51342.43	NGN Million	[+]

Source: IMF World Economic Outlook, October 2014

Table 2: Countries and their GDP between 1960-2014

Countries	GDP	Reference	Previous	Highest	Lowest	Unit	
Australia	1453.77	Dec/14	1560.37	1560.37	18.60	USD Billion	[+]
Brazil	2346.12	Dec/14	2392.09	2615.19	15.17	USD Billion	[+]
Canada	1786.66	Dec/14	1838.96	1838.96	40.77	USD Billion	[+]
China	10360.10	Dec/14	9490.60	10360.10	46.68	USD Billion	[+]
Euro Area	13402.70	Dec/14	13186.30	14104.50	245.70	USD Billion	[+]
France	2829.19	Dec/14	2810.25	2923.47	62.65	USD Billion	[+]
Germany	3852.56	Dec/14	3730.26	3852.56	215.02	USD Billion	[+]
India	2066.90	Dec/14	1861.80	2066.90	63.50	USD Billion	[+]
Indonesia	888.54	Dec/14	910.48	917.87	5.98	USD Billion	[+]
Italy	2144.34	Dec/14	2136.95	2391.88	40.39	USD Billion	[+]
Japan	4601.46	Dec/14	4919.56	5954.48	44.30	USD Billion	[+]
Mexico	1282.72	Dec/14	1262.25	1282.72	13.06	USD Billion	[+]
Netherlands	869.51	Dec/14	853.54	931.29	12.28	USD Billion	[+]
Russia	1860.60	Dec/14	2079.02	2079.02	195.91	USD Billion	[+]
South Korea	1410.38	Dec/14	1305.60	1410.38	2.36	USD Billion	[+]
Spain	1404.31	Dec/14	1393.04	1634.99	12.07	USD Billion	[+]
Switzerland	685.43	Dec/13	666.10	696.31	9.52	USD Billion	[+]
Turkey	799.54	Dec/14	823.24	823.24	8.02	USD Billion	[+]
United Kingdom	2941.89	Dec/14	2678.17	2963.10	72.33	USD Billion	[+]
United States	17419.00	Dec/14	16768.10	17419.00	543.30	USD Billion	[+]

Source: CIA World Factbook - This page was last updated on June 30, 2015

Nigeria GDP compared to some counties:

The nations that have the highest GDP in the world are the European Union (US\$18.45Tr). United State of America (US\$17.42Tr), China (US\$ 10.38Tr), Japan (US\$ 4.60Tr), Germany (US\$ 3.86Tr), United Kingdom (US\$ 2.95Tr) and

