EFFECT OF ECONOMIC RECESSION ON THE GROWTH OF CONSTRUCTION FIRMS IN ABUJA, NIGERIA

ABSTRACT

Economic recession occurs when "economic activity declines, in other words, growth become negative "and it is associated with low- level consumer spending. A recession also known as go-slow in terms of Gross Domestic Product (GDP) or national outputs has led to increase in unemployment, a decrease in wages, a high level of inequality, and an increase in government borrowing. Fall of Nigerian currency, so much reliance on oil, and lack of diversification led Nigeria to two consecutive quarters of negative economic growth, which is recession. Economic recession has badly affected the construction industry so much that there is hardly any new projects coming on stream; cranes are lying idle throughout the country and many newly constructed facilities remain unoccupied. This has resulted into redundancy in Nigeria's construction industry while many construction firms have practically laid off their staff. The aim of the study was to evaluate the effect of economic recession on the growth of construction firms in Nigeria with a view to strengthening them against the effect of economic recession on the Nigerian construction industry. The quantitative research approach was adopted with use of questionnaire survey employed to collect data from 22 construction firms registered with Federation of Construction Industry (FOCI). Archival data were also collected from World Bank and CBN bulletin. Data collected were analysed with the use of Relative Importance Index (RII) and Regression Analysis. It was also shown that "Job Loss" is the most significant effect of economic recession (RII = 0.89). Seven (7) out of the eight (8) measures identified for preventing reoccurrence of economic recession, ranging from "Expansionary monetary policy – cutting interest rates" to "Higher Inflation Target" are very effective (RII = 0.77 – 0.68). Finally, it was revealed that a strong, negative and significant relationship exists between micro variables and number of employees of firms ($p = 0.022$; $R^2 = 57\%$). It was therefore concluded that economic recession has a significant negative effect on the growth of construction firms in Abuja, there was increase in unemployment. It was thus recommended that Government and construction firms should set up a mechanism for the effective implementation of the measures for preventing the reoccurrence of economic recession in the Nigerian construction industry.

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background to the Study

Recession occurs when “economic activity declines, in other words, growth become negative “and it is associated with low- level consumer spending (John *et al.*,2010).A recession also known as go-slow in terms of Gross Domestic Product (GDP) or national outputs has led to increase in unemployment, a decrease in wages, a high level of inequality, and an increase in government borrowing, among other factors (Tejvan,2012). Gbeneye (2014) described economic recession as a period marked by a drop in stock prices, the closure of businesses, the reduction of consumer credit facilities, and the collapse of mortgage facilities. Recession, according to Lipsey & Chrystal (2011), is described as a "two-quarter drop in real GDP.”

The price of oil had dropped from $112 per barrel in 2014 to less than $50 per barrel prior to the global oil price drop in 2016; Nigeria’s economy was highly dependent on crude oil revenues, with steady inflows of Foreign Portfolio Investment (FPI) and Foreign Direct Investment (FDI).

The National Bureau of Statistic (NBS) reported that oil sector produced 95 percent of Nigeria's export earnings and 75 percent of government revenue (BBC News, 2016). According to the latest growth figures, Nigeria's economy shrank 2.06% between April and June, 2015 indicating that the country has entered a recession. Apart from the oil company, the figure depicted the naira’s depreciation, which has harmed Nigeria's economy. In June, it was allowed to float freely to aid the economy's recovery, but the economy lacks sound policy, which is another factor contributing to the country's recent recession (BBC News, 2016).

According to NBS (2012) a year after the country's recession was declared, much thought had gone into identifying the causes of the downturn. A lot of factors were to blame for the recession; some believe militants in the Niger Delta region have the upper hand in reducing crude oil output, which resulted in the recession. Nigeria's construction industry contributed significantly to the country's GDP. In reality, when compared when compared to the other sectors of the Nigerian economy, the construction industry is growing.

NBS (2012) stated that the construction industry contributed N54,613,264.18 million to real GDP in 2010, accounting for 2.88 percent of the total, or N1,570,973.47 million. The construction industry increased by 21.30 percent in 2011, reaching N1,905,574.90 million. The construction sector experienced a 14.86 percent slowdown growth, resulting in a total of N2,188,718.59 million in 2012.In the same year, construction's share of GDP increases to 3.05 percent. As construction activities, the study included the construction of houses, bridges, railways, and civil engineering projects. Demolition, service project design, and site preparations are among the others.

The International Monetary Fund (IMF) and the Central Bank of Nigeria (CBN) concluded that Nigeria's economy would be stable again in the first quarter of 2017, with a low growth rate of 1.5 percent (Noko, 2016). The recession problems can be solved with policies that make the economy more attractive to international investors. The policies include boosting foreign reserve, lowering port charges and other import duties, and promoting both domestic and foreign investment. As a result, the country's economy will return to normal. This is the direction in which this research is going.

1.2 Statement of the Problem

The ongoing global economic and financial crises have raised a slew of concerns at every level of the economic policymaking process (Burger *et al,* 2009). In advanced countries, the government and emerging markets were forced to work together urgently on a variety of issues: politically sensitive economic sectors had to be bailed out, the overall economic downturn had to be reversed, and the vulnerable people had to be shielded from falling incomes. These costly steps were taken in response to declining government revenues, dwindling domestic and international financing, and long-term budget and debt implications (Burger *et al*., 2008).

The effect of global economic recession was felt by the banking sector, immediately there was withdrawal of credit lines by foreign bank, resulting to paucity of funds in the economy (Gbeneye, 2014). The stock exchange's share prices went down the drain and investors run into heavy lose and can't repay share purchased on loan (Ngwube & Ogbuagu 2011). The firm's productive capacity dwindled, resulting in significant retrenchment and increase in unemployment level (Ngwube & Ogbuagu, 2014).

According to Ajanlekoko (2016), the building industry has been hard hit by the recession, with few new projects springing up and equipment's laying idle and facilities unoccupied.

Liquidity management and bank loans are becoming too expensive to maintain as a result of narrowing both local and international financial market and also unwillingness of the public to invest on company's share, resulting to the crash of the capital market (Owolabi & Obida, 2012). Due to a lack of currency, there would be a void in the trading cycle without adequate liquidity management during this time of economic recession. It will actually affect the profit margin of the contractor and retard the growth rate of construction firms.

1.3 Research Questions

In order to address the research problem, this study raised to the following questions:

i. What are the effects of economic recession in the Nigerian construction industry?
ii. What is the relationship between micro economic variables and the annual growth rate of construction firms in Abuja?
iii. What is the relationship between some micro economic variables and construction GDP in Nigeria?
iv. What are the strategies for reducing the effects of economic recession on the Nigerian construction industry?

1.4 Aim and Objectives

The aim of this research is to evaluate the effect of economic recession on the growth of construction firms in Nigeria with a view of strengthening the construction industry on the effect of economic recession. The following objectives are set to achieve the stated aim:

i. To examine the effects of economic recession on the Nigerian construction industry.
ii. To determine the relationship between micro economic variables and the annual growth rate of construction firms in Abuja.
iii. To determine the relationship between some micro economic variables and construction GDP in Nigeria.
iv. To examine the strategies for reducing the effects of economic recession on the Nigerian construction industry.

1.5 Justification for the Study

The aim of the study was to assess the effect of the economic downturn on the growth of Nigerian construction firms. Insufficient funds in the system reduced the productive capacity of firms leading to massive retrenchment and dramatic increase in unemployment levels, the value of Naira was reduced drastically and construction firms can no longer manage the taxation. The effect of the economic recession in the Nigerian construction industry became so severe; such necessitates strategies for proper management.

1.6 Scope of the Study

The work addressed the effect of economic recession on the Nigerian construction industry using information to be obtained from construction firms within Abuja metropolis. The study covered construction firms in Abuja registered with the Federation of Construction Industry (FOCI). The study will cover a fifteen – year period (2004 - 2018).The information on GDP, interest and inflation rate was used to describe economic recession. The annual employee turnover and annual profit margin of construction firms are included in the growth of the company. A descriptive research survey was adopted and took a period of three (3) years (2017-2021).

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 The Economy of the Nigerian Construction Industry

Nigeria's GDP growth rate in the first quarter of 2016 was (-0.36%) and (-2.06%) in the second quarter (CBN, 2016).Key macroeconomic indicators including growth rate, oil price, unemployment, exchange rate and inflation, underemployment, and foreign reserve all suffered significant changes between 2015 and 2016, with percentage changes of 4.32 percent, 26.92 percent, 7.1 percent, 58.48 percent, 5.0 percent, and 10.5 percent.

Construction productivity and the national economy are critical components of a country's national economy and industrial development, especially in developing countries (Dlamini, 2012). Small and medium-sized companies dominate the Nigerian construction industry, with a small number of large corporations controlling approximately 95% of the market (Ogbebor, 2002).The industry is made up of clients from public and private sectors, as well as designers, managers, and experts, but private sector investments are by far the most prevalent (Johnson *et al*, 2013). Construction firms were involved in purchasing materials, providing utilities, and constructing physical structures and infrastructures (buildings, structural engineering, power and energy, industrial/commercial complexes, land improvement, and so on) (NBS, 2016).

Foreign companies dominated the industry (Husseini, 1991; Wahab, 2005; Aniekwu, 2007), with the majority hailing from Germany, France, Japan, Italy, Korea, the United Kingdom, the United States, India, China, and even the Middle East Asia and Arab world (Husseini, 1991; Wahab, 2005; Aniekwu, 2007). To curtail the dominance of foreign firms in Nigeria the National Assembly passed the local content bill in April 201, which was intended to give indigenous companies the opportunity to participate in economic development of Nigeria.

2.2 Causes of Economic Recession in Nigeria

According to (Noko, 2016) quoting from the National Bureau of Economic Research (NBER) a recession is "a significant decline in economic activity spread across the economy, lasting more than a few months, normally visible in a real gross domestic product (GDP), real income, employment, industrial production and wholesale-retail sales." (Tinuke 2012) also defined recession as a period of economic slowdown featuring low output, illiquidity and unemployment. It is characterized by its length, abnormal increases in unemployment, falls in the availability of credit, shrinking output and investment, numerous bankruptcies, reduced amounts of trade and commerce, as well as highly volatile relative currency value fluctuations, mostly devaluations, financial crises and bank failure. The political/security factors involves the impact of Niger-Delta militancy on oil production, impact of herdsmen/farmers conflicts on agricultural production across the country, but particularly in the North-Central and the continuing (though reduced) impact of Boko Haram activity on agricultural output and trade in North-East and impact of grave internally displaced persons (IDPs) situation in the region has contributed to the current economic recession in Nigeria (Oladapo, 2016).

Some of the general causes of economic recession in Nigeria to include:

2.2.1 Poor economic planning: The current economic downturn in Nigeria is largely due to inadequate economic planning. The government has announced in model the normal generalities that every government engages in, such as spreading the economy, upgrading the manufacturing/mining sector, increasing agricultural production, attracting foreign investment, and so on, but there has been no clear strategic plan for growth announced. Cement, rice, toothpicks, poultry, private jets, beef, margarine, wheelbarrows, soaps, and textiles have all been targeted by the government as potential dollar-buying opportunities (Noko, 2106)

2.2.2 High taxation: Nigeria is one of the few countries that have a high tax rate during the current economic downturn. In a small enterprise, interest rates are dealt with both high interest rates and high tax rates have hurt Nigeria's aggregate demand (Noko, 2016)

2.2.3 Policy conflict: There seems to be a misalignment of economic policies. A significant monetary measure is the combination of a high tax rate and a high interest rate. The government, on the other hand, has announced that in order to minimize the deficit, it would take an expansionary strategy (Noko, 2016)

2.2.4 High inflation rate: The government made a mistake by prohibiting the importation of agricultural products such as rice without taking into account the time it takes for rice to mature. Fuel subsidies should not be eliminated simultaneously with the prohibition of agricultural imports. The government made a mistake by banning the importation of agricultural products like rice without taking the growth time into account. Importing agricultural goods should not be prohibited at the same time as fuel subsidies are removed (Noko, 2016)

2.2.5 High interest rate: The interest rate is between 26.77 percent and 27 percent. This is a huge number for investors. Low investment contributes to the high unemployment rate in the country (Noko, 2016)

2.2.6Over dependent on Oil: Non- diversified structure of government revenue and export revenue. The fallen in the oil price from $112 per barrel to $50 per barrel affected the Nigerian economy (Agri *et al*., 2017)

2.3 Effects of Economic Recession in the Nigerian Construction Industry

The Nigerian economy faces the rippling effects of the global economic crises resulting to breakdown and decline in economic vigour. The effects find expression in downsizing,

mass unemployment, and crashes in the money market (Tinuke, 2012). There is need to understand the dynamics of the present global economic meltdown with careful study and examination of the issues involved. The Nigerian economy has continued to witness renewed and sustained recession, characterized by galloping inflation, unemployment and declining businesses. The general business cycle of recessions affects human resource management (Tinuke, 2012)**.**Such factors as interest rates, inflation, and economic growth help determine the availability of workers and figure into organizational plans and objectives. Decision on wages, overtime, and hiring or laying off workers all hinge on economic conditions. The recession that befall Nigeria hit the construction industry too hard that companies lost their staff, there is hardly any new projects coming on stream, cranes are lying idle throughout the country and many newly constructed facilities remain unoccupied (Ajanlekoko, 2016).

Telvan(2012) gives the following as the effects of economic recession:

1. **Unemployment:** Rise in unemployment is caused by a fall in GDP. Some firms will be liquidated and workers will lose their jobs.
2. **Lower wages:** Workers will experience significant drop in their income as firm try to reduce costs by reducing wages.
3. **High cost of material:** Firms high spending on material and labour as fluctuation become the order of the day. High expenditure by firms on welfare support and compensation.
4. **Budget deficit:** Recession can likely cause increase in budget, firms hardly get over a project within budget, always net cost overrun.
5. **Decline in income and profits**: Many construction firm reported of low income as there is reduction in the number of available project, businesses is no longer smooth as usual.

6. Rising bond yield: In the period of recession, government bond yield usually deep.

In addition, Enejeta(2016) gave the following as the effects of economic recession on the construction workers:

i. **Job loss:** This affects strength of individuals and families with high unemployment rate, people struggle to seek for job no matter how little and some already in service lost their job.

ii. **Lifestyles change:** Fall in income causes reduction in spending and entertainment. At this era people embank in cheaper product and service for survival. People hardly go on clothing while they struggle to feed.

iii. **Credit and debts:** Credit and debt become the order of the day. Those that lost out job keep borrowing, seeking for loan, and some use loan to repay loan. Many people use credit and loans to pay off their debts, which may lead to a concurrent debt situation.

2.4 Parameters for Measuring Growth of Construction Firms

The growth rate of a construction firm depends on the number of employee and profit margin of the firm. The major (5) key parameters for measuring growth of construction firms as given below:

1. Human Factor.

The human factor has great attribute toward the growth of construction firm. There are six sub-factors responsible for the firm's growth and they are sufficient knowledge and experience, diversified expertise, skilled workers, Market specialization, technical expertise and good team members (Abu Hassan *et al.*, 2012).

2. Management Factor.

The management increases the fate of growth of construction firms, the management factors consists of eight sub-factors, effective organization structure, good site management, on the job safety and security, educating and upgrading of members and availability of capital (Abu Hassan *et al*., 2912).

3. Product Quality.

The quality of the product speak for the company, the product packaging eg designs, equipment and the technical no how of the company, active research and growth, creativity, development, automation, a technical advantage, use of emerging technologies, and maintaining product quality are the sub-factors that boast the growth of the construction firm (Abu Hassan *et al*., 2912).

4. Customer Orientation.

The firm that counts customers satisfaction first, good prices and good relationship with their client will pick up fast. Customer orientation is comprised of three sub-factors: attention to customer loyalty, competitive product costs, and positive client relationships(Abu Hassan *et al*., 2912).

5. Environmental Factor.

The site and head office location is strategy for company growth. Good situation of the site will easily attract clients or customers for product and services. Ability to attract bank Loans or other form of credit is a good factor to fasten the growth of construction firm. The other environmental factor the formation of joint projects, the government's open economic policy, government assistance/tax incentives, political stability, and a stable climate(Abu Hassan *et al*., 2912).

2.5 Construction and Economic Growth

Organized construction contracting in Nigeria began in the 1940s with few foreign companies coming into operation (Olowo-Okere, 1985). Nigeria’s Independence in 1960

bolstered by the “oil boom” of the 1970s brought an upward trend in the construction activities and up to the end of the second Republic in 1983, the construction industry in Nigeria has witnessed an overwhelming upsurge in construction contracting dominated by expatriate companies with few indigenous companies (Idoro, 2009). Unfortunately, the period also exposed the country’s indigenous companies low level of human resources development required for; planning, designing, constructing and maintaining the magnitude (in size and number) of projects conceived by the government. However, with improved training institutions, engagement of expatriates, collaborations between indigenous and foreign entrepreneurs, political stability and improved government policies, and the apparent resources gap needed for successful completion of complex projects between indigenous companies and their foreign counterparts are now closer compared to the pre-independence era (Mbamali and Okotie, 2012).

Isa *et al*. reviewed the contribution of construction sector to Nigeria economy towards sustainable development based on historical data obtained from the Central Bank of Nigeria (CBN) and Nigeria Bureau of Statistics (NBS).

NBS (2012) stated that the construction industry contributed N54,613,264.18 million to real GDP in 2010, accounting for 2.88 percent of the total, or N1,570,973.47 million. The construction industry increased by 21.30 percent in 2011, reaching N1,905,574.90 million. The construction sector experienced a 14.86 percent slowdown growth, resulting in a total of N2,188,718.59 million in 2012. In the same year, construction's share of GDP increases to 3.05 percent.

The Nigerian Construction Sector is projected to continue to grow very high in so far as the international price of oil remains high and the development of physical infrastructure remains high on the government’s agenda (BMI, 2007, Dantata, 2008). Nigeria has the potential to become one of the largest construction markets in Africa. The NCS is

forecasted to enjoy the fastest growth rate in the world even faster than India. From 2009 to 2020, only Nigeria and India would enjoy higher growth rates than China in their construction output. This reflects increased wealth and urbanization resulting from the country's oil production. Road and rail projects are on the rise, contributing the major stimulus for growth and boosting industry value to US$7bn by 2014 (Business Monitor International, 2010).

Figures 2.1–2.4 depicted the construction industry's economic development from 2002 to 2020.

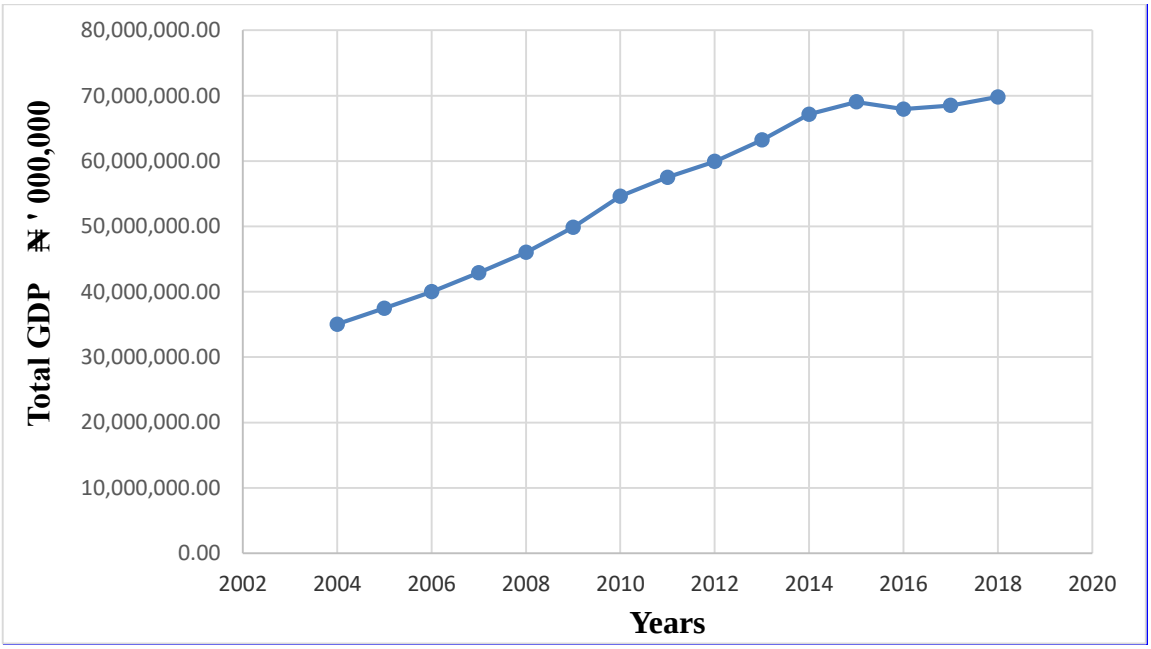

Figure 2.1: Nigeria's Total GDP from 2004-2018.

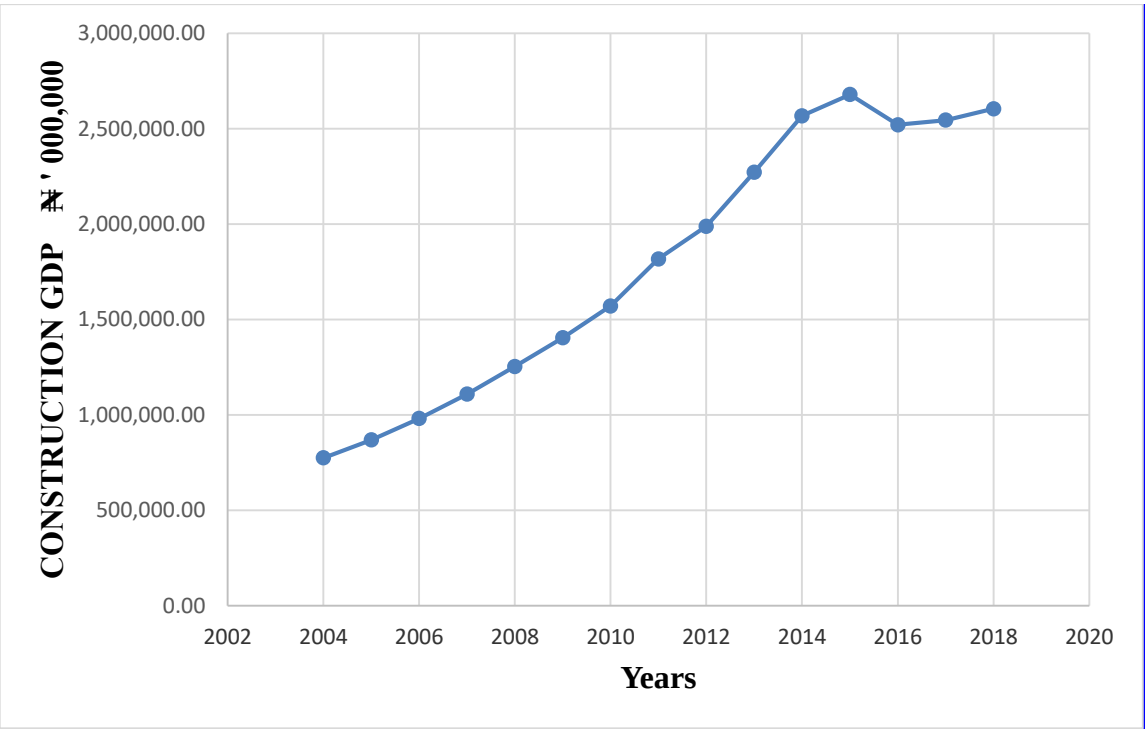

Figure 2.2: Nigeria's Construction GDP from 2004-2018.

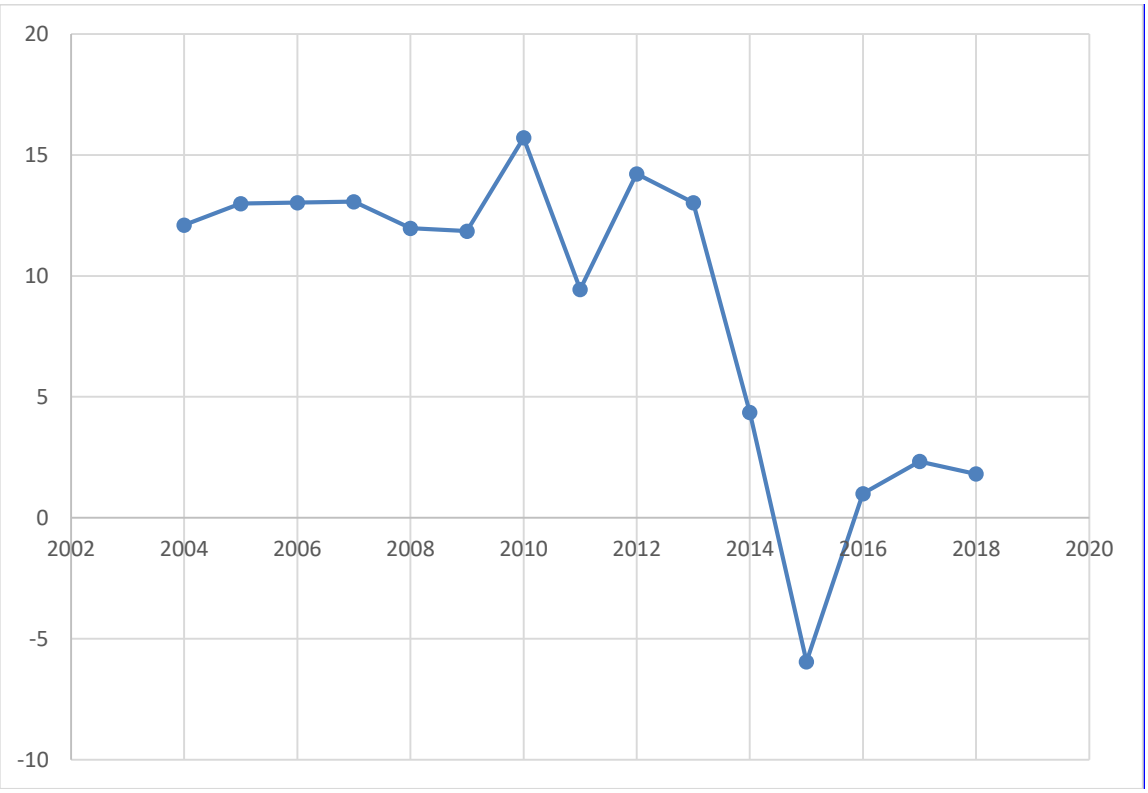

Figure 2.3: Nigeria's Construction GDP GrowthRate % from 2004-2018.

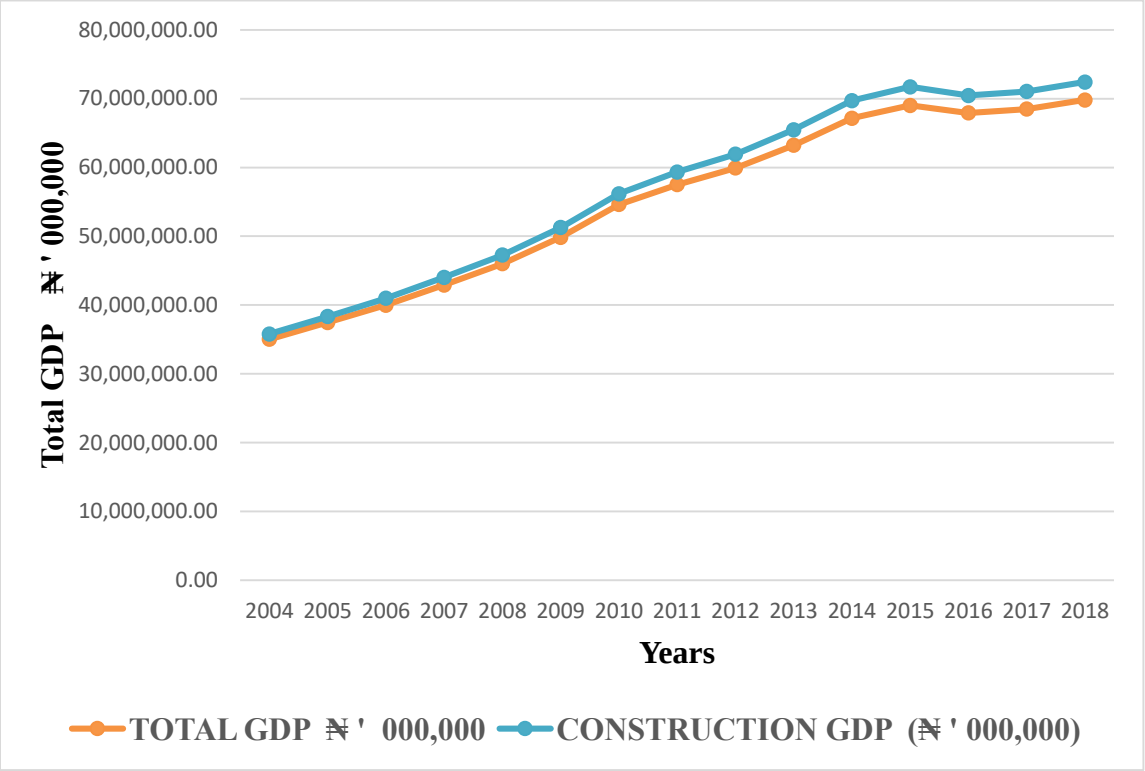

Figure 2.4: Relationship between Total GDP and Construction GDP from 2004-2018.

2.6 Inflation and Economic Growth

Inflation is an economic malady that reduces the purchasing power of money over time periods. (Chiaku & Ikechukwu, 2018)

Salami and Klikume (2010) used annual data from 1970 to 2008 and 1980 to 2008 to estimate an inflation threshold for Nigeria. Around 1970 and 2008, the 8% inflation threshold was discovered, while the 7% inflation threshold was discovered later between 1970 and 2008. Bassey & Onwioduokit (2011) examined the relationship between inflation and economic growth and established an appropriate threshold using annual data from 1970 to 2006, the existence of a negative relationship was discovered.

After establishing the existence of a negative relationship, they identify an 18 percent statistically insignificant threshold level and conclude that inflation rates below that level are increasing growth. Using the threshold regression model developed by Khan and Senhaji (2001) on a mix of quasi and actual quarterly data from 1981 to 2009, Bawa & Abdullahi (2012) estimated a higher threshold inflation level of 13 percent.

Also, in a study on Nigeria, Chimobi (2010) investigates the existence of a relationship between inflation and economic growth using annual data for the period 1970 – 2005. The study finds no co-integrating relationship between the two variables. Using Granger causality test, however, the study established unidirectional causality running from inflation to economic growth.

2.7 Interest Rate and Economic Growth

Interest can be defined as the return or yield on equity or opportunity cost of deferring current consumption into the future (Uchendu, 1993). This definition clearly shows that interest is a concept which can mean different things depending from the perspective it is viewed. Interest rate can therefore be seen as a nebulous concept, a position affirmed by the availability of different types of this rate. Some of which are; savings rate, discount rate, lending rate and Treasury bill rate.

Apart from this, interest rate can also be categorized as nominal or real. This categorization credited to Irvin Fisher tries to accommodate the moderating influence of inflation on interest rate. Nominal interest rate is the observed rate of interest incorporating monetary effects while real interest rate is arrived at by considering the implications of inflation on nominal interest rate (Uchendu, 1993:; Essia, 2005).

The importance of interest rate is hinged on its equilibrating influence on supply and demand in the financial sector. Colander (2001) & Ojo (1993) confirmed this by saying

that the channeling of savings into financial assets and the willingness of individuals to incur financial liabilities is strongly influenced by interest rates on those financial assets and liabilities.

The developmental role of interest rate is possible because of the interlocking linkage existing between the financial and real sectors of economies. It is therefore through this linkage that the effect of interest rate on the financial sector is transmitted to the real sector. For instance, the lending rate which translates into the cost of capital has direct implications for investment. High lending rate discourages investment borrowing and vice versa. Savings rates, on the other hand, when high encourages savings which ultimately translates into increased availability of loanable funds. The snag here is that the high savings rate is also bound to translate into high lending rates with attendant negative consequences on investment (Chizea, 1993).

According to Sanusi (2002), interest rates are the costs a borrower has to pay when obtaining a loan in any economy. This definition implies that, interest rates are the determinants of the cost of credits in an economy. The impact of high cost of interest rates in the society is not unconnected to the fact that borrowers may hesitate to borrow when they should. This may be because the cost of credit and the credit itself may aggregate to an amount that may be unaffordable to the borrower to pay back within the stipulated due date of the loan. The implication of this on the economy is that GDP of the economy would be low since equity financing alone cannot adequately sponsor the production activities in an economy.

According to (Akintoye & Olowolaju, 2008) in their paper titled "Optimizing Macroeconomic Investment Decisions Lesson from Nigeria," low interest rates have hampered investment decisions in Nigeria. This contradicts Erega's (2010) results, which suggest an inverse relationship between the two. This result contradicts Erega (2010)'s

results, which indicate that interest rates and economic growth in Nigeria are inversely related. This finding contradicts Erega (2010), who found an inverse relationship between interest rates and economic growth in Nigeria.

Obamuyi (2009) asserted that interest rates and economic growth in Nigeria are related. The study's modeling techniques revealed that the lending rate has a significant impact on economic development. The study concludes that favorable interest rate investment policies are critical to boosting economic growth and should be developed and implemented. Erega (2010) accepted that the study of the relationship between interest rate and investment in Nigeria between 1970 and 2002 revealed a negative and significant difference in interest rate, which had a negative and significant effect on investment decisions in the economy and required growth.

Obamuyi & Olorunfemi (2011) looked at the impact of financial reform and interest rate decisions on economic development in Nigeria using a co-integration and error correction model and data from 1970 to 2006. They discovered a connection between interest rates and financial reform. Utile *et al*. (2018) investigated how interest rate policy affects economic growth in Nigeria. Multiple regression was used to evaluate the results. Inflation and the exchange rate have a negative and marginal effect on GDP, while the interest rate has a positive and significant impact. The impact of interest rate mechanisms on Nigerian economic growth was examined by Osadume (2018).

The functional relationship between the dependent variable and the dependent variables was investigated using a combination of Ordinary Least Square, Co-integration, Granger-causality, and ECM. Nigeria was selected as the study's sample. Discount rates, as measured by interest and monetary policy rates, had a significant effect on economic growth in the short run and a positive and significant impact in the long run, according to the results.

Nkemakolam (2017) looked at the effect of interest rate fluctuations on the growth of the Nigerian economy using annual time series data from 1986 to 2013. Using the Ordinary Least Square regression process, researchers discovered a negative relationship between interest rate reforms and Nigerian economic growth. According to Babalola *et al*. (2015), who used data from the Central Bank of Nigeria to examine the period 1981-2014, inflation and interest rates have a negative effect on economic growth.

2.8 Measures for Reducing the Effect of Economic Recession on the Construction Industry.

A recession also known as go-slow in terms of Gross Domestic Product (GDP) or national outputs has led to increase in unemployment, a decrease in wages, a high level of inequality, and an increase in government borrowing, among other factors (Tejvan, 2012). Gbeneye (2014) described economic recession as a period marked by a drop in stock prices, the closure of businesses, the reduction of consumer credit facilities, and the collapse of mortgage facilities. But there should be ways to manage or reduces the ripple effects of economic recession, especially as it affects the construction industry which is the highest contributor to national economy. Then, Tejvan (2017) stated some policies that can help to manage or reduce the effect of economic recession, and they include the following:

1. **Explanatory policy –:** Interest rates may be lowered to help reestablish aggregate demand. A lower interest rate also lowers interest rates and mortgage interest costs, allowing households to earn healthy income. Reduced interest rates enable companies and consumers to spend instead of save. The central bank, for example, could buy bonds and shares, lowering interest rates and boosting economic activity.

However, reducing interest rate alone does not work, in 2008 -2009, in UK, interest rate was reduced to 0.5% but couldn't prevent recession. It was because:

- Base rate were reduced by banking sector.

- Bank were reluctant to lent and consumers also reluctant to spend even when the interest rate was reduced.
- This is called *Liquidity trap.*

2. **Quantitative easing:** The central bank would be forced to follow alternative monetary strategies if the interest rate is set at zero .Quantitative easing entails electronic cooperation with the central bank in the creation of capital and the acquisition of securities. It draws in lenders and boosts bank reserves while also lowering bond interest rates.
3. **Helicopter money**: This refers to policies that increase money supplies to consumers directly. It is used during times of depression, when banks are hesitant to lend and consumers are hesitant to spend
4. **Expansionary fiscal policy**: This involved government spending on the small income earners, it takes cares of their income tax and VAT. This policy causes over spending and leads to high GDP. It is an avenue to help the poor earners in the state Since Europe has less borrowing flexibility; this policy is more commonly used there.

5. Ensure financial stability: In the year 2008, the crises in the credit lead customers to losing their trust in saving with the banks, a lot low spirit which resulted to frustration on the banking sector, but the government/Central bank provided a helping hand as the last resort (ie bank guarantee) as the government has the power to freeze mortgage rates and provide subsidy.

6. **Devaluation:** The reduction of dollar value will increase the demand in the sense that importation w cost will be reduced. The devaluation of Naira will the nation economy to recover fast just as it happened in the UK 1932, the pound was devalued and it helped the economy to recover fast.

7. **Higher Inflation Target:** Targeting of higher inflation is important, instead of focusing on growth, it is necessary to put more interest on inflation. When the inflation is low the economy becomes stuck and lead to lower economic growth.
8. **A government bailout of major firms:** Obama administration bailed out auto industry in US when they were facing financial challenges, and they argued that they may face recession if the auto industry back up and such will increase unemployment in their country, and this happened in 2009. The bailout helped and reduces the impact of economic recession and other bad consequences

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Research Design

This study adopted a mixed method research approach. Data collection was undertaken with the use of structured questionnaire. Analysis of data was carried out using descriptive analytical techniques. In this research, general focus is on the overall ideas effect of economic recession on the Nigerian construction industry. Identification of effects was done with the study of literature. The Questionnaire was developed after the identified effects of economic recession.

Data collection was done from both primary and secondary sources. The use of questionnaires was employed to collect data from the primary source on the effect of economic recession on Nigerian construction firms. Data on micro variables was collected from World Bank and the Central Bank of Nigeria Bulletin for a period fifteen - years (2004-2018).Analysis of data collected was carried out using both descriptive and inferential statistics.

The objectives of this study were achieved by using a research design that involved a critical review of extant literature on economic recession on the Nigerian construction industry. It also reviews deeply on the economic recession, its effects on the construction industry. This is by examining leading academic and technical journals, technical reports, text books, conference proceedings, and case studies. Also, the research used a survey approach to achieve the objectives. The use of Relative Important Index(RII) was employed for the descriptive statistics while the use of regression analysis was employed for the inferential statistics. Tables and Figures were used in the presentation of data. The analysis was done using the descriptive analysis.

3.2 Research Population and Sampling Procedure

The World Bank and CBN websites provided information on interest rates, inflation, and construction GDP. The annual profit margin and annual worker turnover data were gathered from the records of a few Abuja-based construction firms registered with FOCI. The Architects, Builders, Engineers, and Quantity Surveyors, were the population sampled for the questionnaire survey. The 22 firms registered with FOCI were considered, 4 professional each from the 22firms were selected. The sample size for the questionnaire is 88, and questionnaire was administered to the 88 persons. With the aid of the questionnaire, data on construction company growth rates were collected and calculated from annual staff turnover and annual profit margin of the firm spanning from 2004 to 2018. Information on the micro variables was obtained from archival data of World Bank and CBN bulletin covering Fifteen years period from 2004 to 2018.

3.3 Sample Size

The survey sample was drawn from the list of registered construction firms with FOCI and based in Abuja. FOCI has 85 members as at the time of this research (2019), with 74 full members, 5 associate members, 5 information members and 1 ordinary member. To ensure adequate representation of information, all the 22 firms which are resident in Abuja were selected. All the professionals (Architects, Quantity Surveyors, Civil Engineers and Builders) in the construction industry were involved from the sampled firms because all of them experienced the effects of economic recession. The archival data from World Bank website and CBN bulletin is used for information on micro variables.

3.4 Method of Data Collection

This section enlightens on how data were collected from relevant and reliable sources to guarantee quality and also speed up the progress of this research work. Data for this research were sourced primarily and secondarily, this was achieved using questionnaire and archival data. The questionnaire was administered to sampled professionals including Architects, Quantity surveyors, Civil Engineers and Builders from selected construction firms and archival from World Bank website and CBN bulletin.

3.5 Data Collection Instrument

Data collection was from both primary and secondary sources. Primary source of data collection was through administration of questionnaires on a five – point Likert's Scale answer format (Very Important/Significant = 5, Important/Significant = 4, Moderately Important/Significant = 3, Less Important/Significant = 2, and Not Important/Significant = 1). Secondary source of data collection was from the archive the construction firms to be selected for the study on micro variables and from the World bank and Central Bank of Nigeria Bulletin for a ten-year period 15 years (2004-2018) on interest, inflation and GDP .

3.6 Method of Data Analysis

The use of tables was employed to present the profile of the respondents. The use of Relative Important Index was employed to rank the effects of economic recession on the growth of construction firms in Nigerian and strategies for reducing the effect of economic recession in the Nigerian construction industry during times of economic recession. The use of regression analysis was employed to determine the relationships between the micro variables and annual growth rate of construction industry.

The data was subjected to descriptive statistical frequency counts, and the Relative Important Index (RII) was used to look into the effects of the economic downturn on the growth of construction firm in Nigeria. In order to achieve Objectives 1 and 4, rank the steps for preventing a recurrence of economic recession in order of effectiveness in the Nigerian construction industry.

The mathematical formula for RII is Equation 3.1.

$$R.I.I = \frac{5n_1 + 4n_2 + 3n_3 + 2n_4 + 1n_5}{5N} \quad \text{---------- (3.1)}$$

Where:

n_1 = Number of respondents for the attribute rated 5 on scale used

n_2 = Number of respondents for the attribute rated 4 on scale used

n_3 =Number of respondents for the attribute rated 3 on scale used

n_4 =Number of respondents for the attribute rated 2 on scale used

n_5 =Number of respondents for the attribute rated 1 on scale used

N = Total number of Respondents

The decision rule adopted for the RII analysis is summarized in Table 3.1:

Table 3.1: Decision Rule for RII

SCALE	CUT OFF POINT	DECISION
5	0.81 - 1.00	Most Important/Significant
4	0.61 - 0.80	Very Important/Significant
3	0.41 - 0.60	Important/Significant
2	0.21 - 0.40	Less Important/Significant
1	0.00 - 0.20	Least important/Significant

Source: Adapted and Modified from Shittu *et al.* (2015)

The relationships between interest rate, inflation rate, construction GDP, and annual growth rate of construction firm were investigated using regression analysis techniques. The relationship between interest rates, inflation, and construction GDP was investigated using regression analysis. These were used to evaluate the research hypotheses as well as to meet

the study's Objectives 2 and 3. Each of the regression analysis methods used in this study has its own decision rule, which is listed below:

i. F test:

The decision rule here stated that:

- If $F_{calulated} > F_{tabulated}$ then relationship is significant i.e. reject H_o
- If $F_{calulated} < F_{tabulated}$ then relationship is not significant i.e. accept H_o

ii. Probability (p) test:

The decision rule here states that:

- If P value < significance level then relationship is significant i.e. reject H_o
- If P value > significance level then relationship is not significant i.e. accept H_o

iii. Coefficient of Determination (R^2):

The decision rule here states that:

- If $R^2 \geq 50\%$ then relationship is strong.
- If $R^2 < 50\%$ then relationship is weak.

CHAPTER FOUR

4.0 DATA ANALYSIS AND DISCUSSION OF RESULTS

4.1 Chapter Synopsis

The chapter demonstrates data utilizes for analysis and discussion of the results gotten from the analysis. The analysis of data and the result discussions were premised on the data obtained from primary source through questionnaire.

4.2 Response Rate

This section gives the rate of response to the administered questionnaire as presented in Table 4.1.

Table 4.1: Response Rate of Questionnaires

Questionnaires Sent	Received Questionnaires	Percentage
88	80	90.91%

Source: Researcher's Field Survey (2019)

From Table 4.1, Eighty-eight (88) questionnaires were distributed. Eighty (80) questionnaires were returned showing an effective response of 90.91%.

4.3 Respondents' Profile statistics.

This section shows the demographic features of respondents that contributed to the research. Highlights of the respondents' demographics are given in table 4.2 – 4.3 and Figures 4.1 – 4.6.

Table 4.2: Gender of Respondents

GENDER	FREQUENCY	PERCENTAGE (%)
MALE	68	85
FEMALE	12	15
TOTAL	**80**	**100**

Source: Researcher's Field Work (2019)

Table 4.2 shows that majority of the respondents (85%) are males. Only 12 of the respondents are females representing 15% of the population. This is due to the fact that the construction industry is a male dominated industry.

Table 4.3 presents the years of experience of respondents.

Table 4.3: Years of Experience of Respondents

YEARS OF EXPERIENCE	FREQUENCY	PERCENTAGE (%)
1 – 5	20	25.00
6 – 10	35	43.75
11 – 15	10	12.50
16 – 20	8	10.00
21 – 25	4	5.00
26 – 30	3	3.75
TOTAL	**80**	**100**

Source: Researcher's Field Work (2017)

Figure 4.1 Shows the years of experiences of respondents

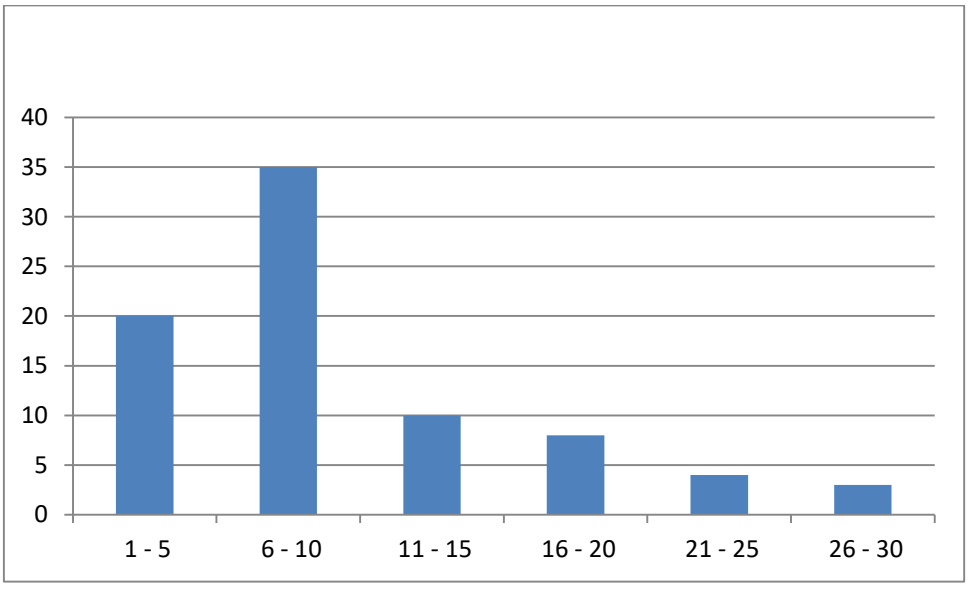

Figure 4.1: Years of Experience of Respondents
Source: Researcher's Field Work (2017)

Figure 4.1 shows that 25% of the respondents are between the years of experience of 1 and 5 years. 43.75% of the respondents are between the years of experience of 6 and 10 years. It was shown that 12.5% of the respondents have their years of experience ranging from 11 – 15 years. It was also revealed that 10% of the respondents are between the years of experience of 16 and 20 years. It was also revealed that 5% of the respondents are between the years of experience of 21 and 25 years. It was finally observed that 3.75% of the respondents are between the years of experience of 26 and 30 years. These profile imply that majority of the respondents have their years of experience ranging from 1– 10 years representing 68.75% of the respondents.

Figure 4.2 presents information on the Profession of Respondents.

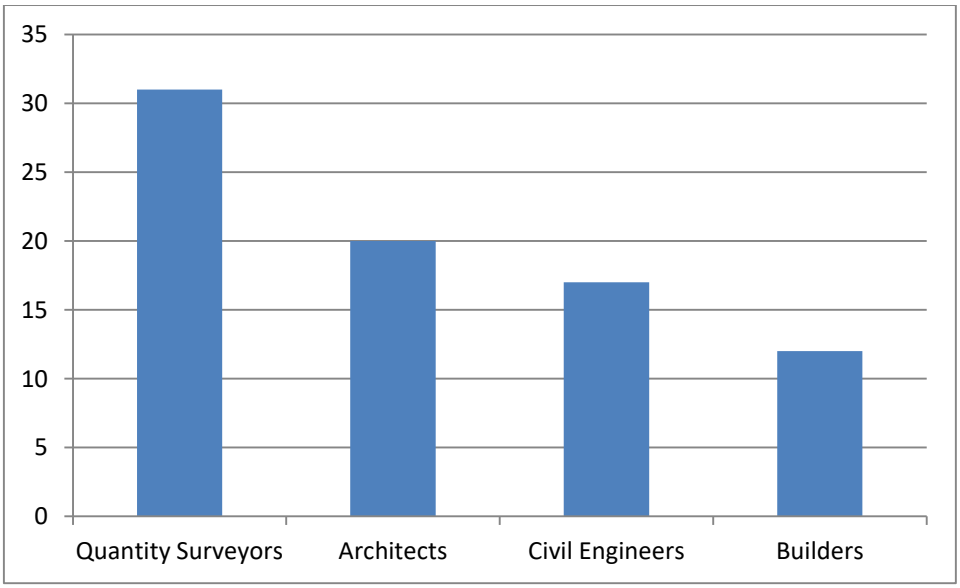

Figure 4.2: Profession of Respondents
Source: Researcher's Data Analysis (2019)

From Figure 4.2, the largest contributors to this research were the Quantity Surveyors with 38.75%, followed by Architects with 25%, Next are Civil Engineers with 21.25% and finally Builders with 15%. The above information shows that the Quantity Surveyors are more active in the practice risk management, from inception through to completion stage of construction projects.

Figure 4.3 Presents Information on the Professional Registration Status of Respondents.

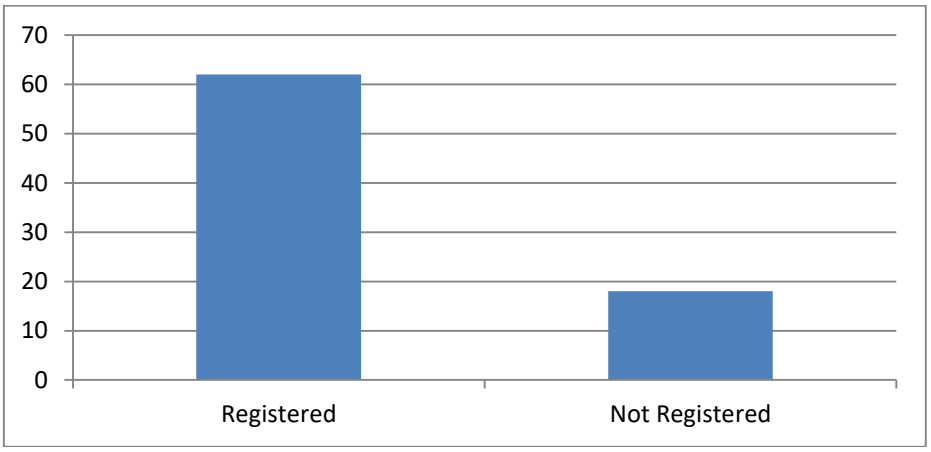

Figure 4.3: Professional Registration Status of Respondents

Source: Researcher's Data Analysis (2019)
Figure 4.3 shows that there are more registered professionals with 77.5% registered with their professional body and 22.5% are yet to register professionally. This implies that there is more professional contribution to the research.

Figure 4.4 Shows respondents' age group

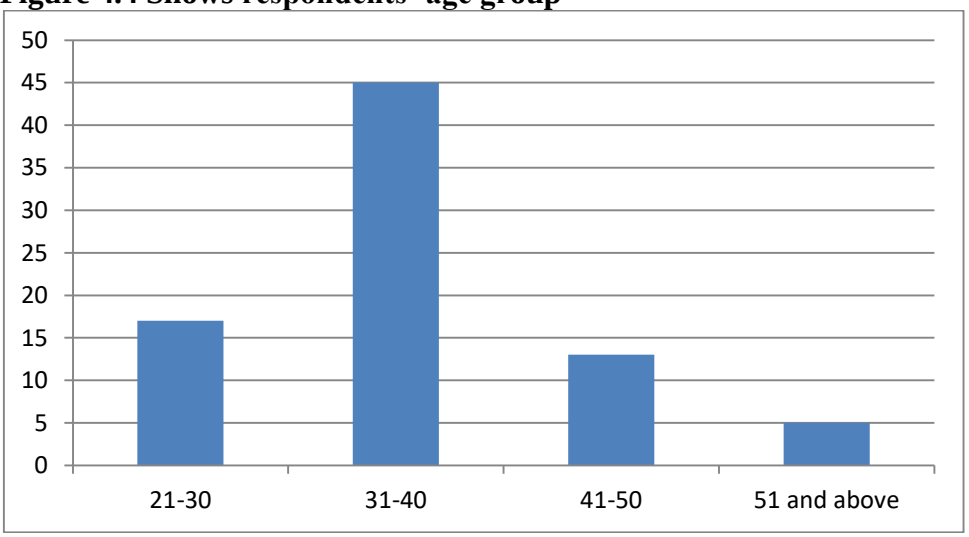

Figure 4.4: Respondents' Age Group
Source: Researcher's Data Analysis (2019)
Figure 4.4 shows the age of respondents. Age group 31 – 40 contributed the most to the study with 56.25%, followed by age group 21 -30 with 21.25%, next age group is 41 – 50 with 16.25% and 51 and above contributed the least with 6.25%. This give the clear picture

of professional who are willingly contributing to this research are vibrant young professionals who are active in the field.

Figure 4.5 shows the respondents' academic qualification.

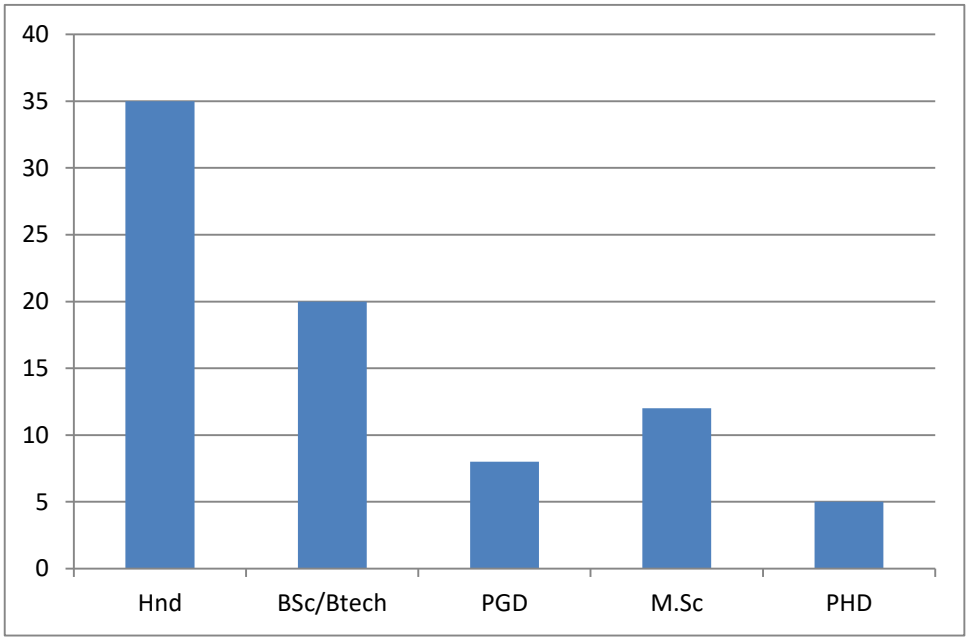

Figure 4.5: Respondents' Academic Qualification
Source: Researcher's Data Analysis (2019)
Figure 4.5 shows respondents academic qualification, respondents with HND got the highest rate of response with 35%, Next was BSc, PGD, MSc, and PhD with 20%, 13%, 8% and 5% respectively. The attitude of respondents shows that professionals with higher qualifications are reluctant or very occupied to contribute to kind of study like this. An encouraging attitude, new method of approach that will suit the busy schedule of the professionals should be employed in research.

Figure 4.6 Presents the Respondents' Level of Involvement in Site Management.

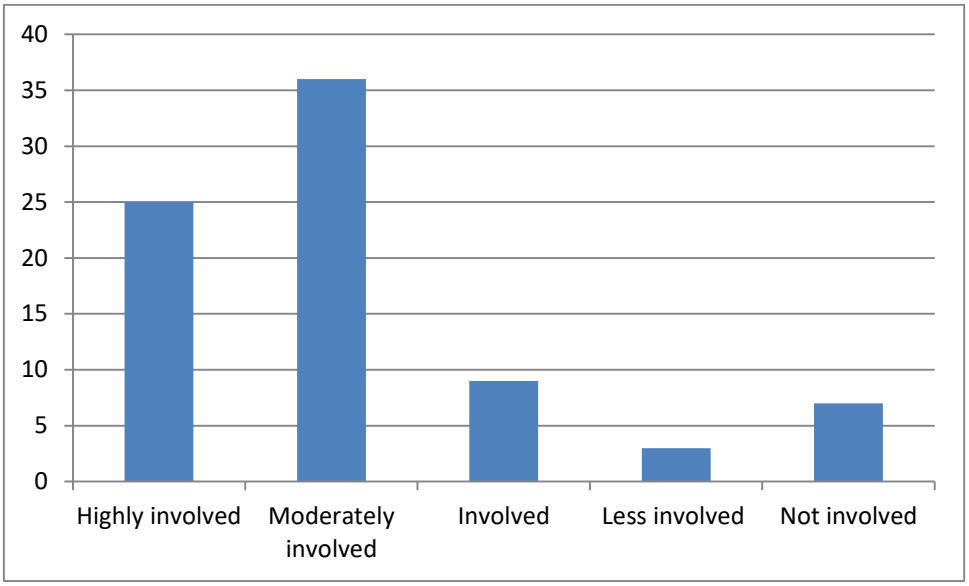

Figure 4.6: Respondents' Level of Involvement in Site management
Source: Researcher's Data Analysis (2019)

Figure 4.6 Respondents' Level of Involvement in risk management, respondents who are moderately involved rate of response with 34%, next were Highly involved, Involved, Least involved and Less involved 32%, 20%, 8%, and 6% respectively. This result shows that the level of involvement was moderate and for risk management to be effective professional need to be highly involved due to the effect of risk on construction project.

4.4 Data Presentation and Analysis

The study also collected archival data. The data collected for this purpose are on interest rate, inflation rate and construction GDP for fifteen-year period (2004 - 2018). These research data are presented in Table 4.4.

The CBN bulletin and the World Bank provided data on the interest rate, inflation, and building GDP, as well as employee numbers and profit margins. From 2004 to 2018, data on interest rates, inflation, and construction GDP is available. Represented in Table 4.4.

Table 4.4: Data on Interest Rate, Inflation Rate and Construction GDP

Year	Inflation Rate (%)	Interest Rate (%)	Construction GDP (%)
2004	15	*	1.8
2005	17.9	*	1.86
2006	8.2	17.33	1.92
2007	5.4	16.46	2.22
2008	11.6	15.26	2.49
2009	12.5	19.55	2.93
2010	13.7	15.74	2.88
2011	10.8	16.75	3.03
2012	12.2	16.54	3.05
2013	8.5	17.01	3.34
2014	8	15.88	3.58
2015	9.01	16.96	3.69
2016	15.7	17.09	3.55
2017	16.5	17.71	3.77
2018	12.1	16.17	4.72

Source: Compiled from CBN Bulletin (2019)

4.5 Effects of Economic Recession on the Nigerian construction Industry

Table 4.5 gives a presentation of the results of the identified effects of economic recession in the Nigerian construction industry.

Table 4.5: Effects of Economic Recession on the Nigerian Construction Industry

S/NO	Effects of Economic Recession	RII	Rank	Decision
1	Job loss	0.89	1st	Most Significant
2	Unemployment	0.80	2nd	Very Significant
3	Lower wages	0.80	2nd	Very Significant
4	Lifestyles change	0.79	4th	Very Significant
5	Taxation	0.78	5th	Very Significant
6	Budget deficit	0.73	6th	Very Significant
7	Credit and debts	0.69	7th	Very Significant
8	Rising bond yield	0.68	8th	Very Significant
9	Government spending	0.65	9th	Very Significant
	Average RII	***0.76***		***Very Significant***

Source: Researchers' Analysis of Data (2019)

Table 4.5 shows that “Job Loss” is the most important effect of economic contraction, with a RII of 0.89, while the other eight (8) reported effects, ranging from “Unemployment” with a RII of 0.89 to “Government spending” with a RII of 0.65, are all very significant. With an average RII of 0.76, all of the reported causes are found to be extremely significant. The findings of previous studies by Telvan (2012) & Enejeta (2016) are consistent with the findings of this study since it was stated that the effects of economic recession are severe in the Nigerian construction industry because it causes unemployment, debt, budget deficits, low taxation, lower wages, and reduced lifestyles, as well as a drop in government bond yields and an increase in government spending.

4.6 Relationship between Micro Variables and Annual Growth Rate of Construction Firms

The relationship between interest rates, inflation rates, construction GDP, and annual growth rates of construction firms was investigated using multiple regression analysis. The independent variables in this study are interest rates, inflation, and construction GDP, while the dependent variable is the annual growth rate of firms. The number of employees and profit margin of companies were used to calculate their average growth rate. As a result, the first Multiple Regression Analysis looked at the relationship between interest rate, inflation rate, construction GDP, and the number of workers, while the second looked at the relationship between interest rate, inflation rate, construction GDP, and construction firms' profit margin.

Tables 4.6, 4.6.2 and 4.7 show the findings of the Multiple Regression Analysis. In Figure 4.4, the outcome of the Multiple Regression Analysis between interest rate, inflation rate, construction GDP, and the number of employees is shown.

Table 4.6: Relationship between Interest Rate; Inflation Rate; and Construction GDP and Number of Employees

Variables	A	B	SEB	β
Constant	6.910		2.867	
Inflation Rate		-0.118	0.049	-0.472
Interest Rate		-0.011	0.170	-0.013
Construction GDP		-0.642	0.215	-2.989
Number of Employees				
R^2	0.570			
R^2 Changed	0.452			
F	4.856			
P	0.022			
Remark	Significant			

*p is significant at 0.05 ($p < 0.05$)
Source: Researcher's Analysis of Data (2019)

The interest rate, inflation rate, construction GDP, and number of employees are all shown in Table 4.6 to have a solid, negative, and important relationship. The observed coefficient of determination (R^2 value) was 0.570 (57%) suggesting a close relationship and meaning that changes in interest rate, inflation rate, and construction GDP account for 57 percent of changes in firm employee numbers, while other variables not included in the study account for only 43 percent. The negative correlation between the variables means that an increase in the interest rate, inflation rate, or construction GDP is likely to be accompanied by a decline in the number of workers, and vice versa. The probability (p) value of 0.022 observed is less than 0.05. The null hypothesis, which states that there is no meaningful relationship between the variables, was thus rejected.

Table 4.6.2 shows the results of the Multiple Regression Analysis between interest rate, inflation rate, construction GDP, and firm profit margin.

Table 4.6.2: Relationship between Interest Rate; Inflation Rate; and Construction GDP and Profit Margin

Variables	A	B	SEB	β
Constant	6.603		2.867	
Inflation Rate		-0.073	0.058	-0.332
Interest Rate		-0.177	0.200	-0.157
Construction GDP		-0.277	0.252	-1.099
Profit Margin				
R^2	0.232			
R^2 Changed	0.023			
F	1.108			
P	0.387			
Remark	Not Significant			

*p is significant at 0.05 ($p < 0.05$)
Source: Researcher's Analysis of Data (2019)

Table 4.6.2 shows a weak, negative and non-significant relationship between interest rate; inflation rate; and construction GDP and profit margin of firms. The observed R2 value was 0.232 (23%), suggesting a poor relationship and meaning that only 23% of shifts in firm profit margins are due to changes in interest rate, inflation rate, and construction GDP, with the remaining 77% due to other factors not included in the study. The negative correlation between the variables suggests that a rise in the interest rate, inflation rate, or construction GDP is likely to be accompanied by a decline in firm profit margins, and vice versa. The observed p value of 0.387 is higher than the threshold of 0.05. As a result of this, the null hypothesis, which states that no meaningful relationship exists between the variables in this situation, was accepted.

4.7 Relationship between some Micro Variables and Construction GDP

The relationship between interest rate and inflation rate, as well as construction GDP, was studied using multiple regression analysis. Interest rate and inflation rate are independent variables in this study, while construction GDP is the dependent variable. Table 4.7 shows

the results of the Multiple Regression Analysis between interest rate and inflation rate, as well as construction GDP.

Table 4.7: Relationship between Interest Rate & Inflation Rate; and Construction GDP

Variables	A	B	SEB	B
Constant	0.939		3.843	
Inflation Rate		-0.006	0.006	-0.027
Interest Rate		0.127	0.225	0.161
Construction GDP				
R^2	0.027			
R^2 Changed	-0.136			
F	0.164			
P	0.851			
Remark	Not Significant			

*p is significant at 0.05 ($p < 0.05$)
Source: Researcher's Analysis of Data (2019)

Table 4.7 shows a weak, negative and non-significant relationship between interest rate and inflation rate; and construction GDP. The observed R^2 value was 0.027 (2.7%) indicating a very weak relationship and also implying that only 2.7% changes in the construction GDP is accounted for by changes in interest rate and inflation rate while 97.3% is due to other factors not considered in the analysis. The negative correlation observed between the variables indicates a tendency that increase in the interest rate and inflation rate will be accompanied by a decrease in the construction GDP and vice versa. The observed p value of 0.851 is greater than 0.05. This led to the acceptance of the null hypothesis which states that there is no significant relationship between the variables in this analysis.

4.8 Measures for Reducing the Effect of Economic Recession

The result of the analysis on the examination of measures for preventing the reoccurrence of economic recession in the Nigerian construction industry is presented in Table 4.8.

Table 4.8: Strategies for Reducing the Effects of Economic Recession

S/NO	Strategies for Reducing the Effects of Economic Recession	RII	Rank	Decision
1	Expansionary monetary policy – cutting interest rates	0.77	1st	Very Effective
2	A government bailout of major firms	0.76	2nd	Very Effective
3	Ensure financial stability	0.73	3rd	Very Effective
4	Expansionary fiscal policy	0.72	4th	Very Effective
5	Quantitative easing	0.69	5th	Very Effective
6	Devaluation	0.68	6th	Very Effective
7	Higher Inflation Target	0.68	6th	Very Effective
8	Helicopter money	0.30	8th	Less Effective
	Average RII	***0.67***		***Very Effective***

Source: Researchers' Analysis of Data (2019)

Table 4.8 shows the eight (8) identified measures for preventing the reoccurrence of economic recession. Except for the last one, all of the listed steps are very effective, ranging from "Expansionary monetary policy – cutting interest rates" to "Higher Inflation Target" with RIIs ranging from 0.77 to 0.68.The eighth (and least effective) measure reported was "Helicopter money," which has a RII of 0.30. The measures for preventing a recurrence of economic recession are, on average, very effective. This supports the findings of Tejvan (2017) that ignoring these tactics would worsen the recession, result in increased unemployment, and have a large negative multiplier impact. In the other side, if they are followed, jobs will be saved and the economy will be less affected.

4.9 Summary of Findings

The following can be summarized from the findings of analysis of data carried out in this study:

i. "Job Loss" is the most significant effect of economic recession (RII = 0.89). Averagely, all the identified causes of economic recession are very significant (average RII = 0.76).

ii. The relationship between micro variables and number of employees is strong, negative and significant. The null hypothesis is rejected. Increase in the interest rate; inflation rate; and construction GDP will be followed by a decrease in the number of employees and vice versa.

iii. The relationship between micro variables and profit margin of firms is not significant. The null hypothesis is accepted. Increase in the interest rate; inflation rate; and construction GDP will be followed by a decrease in the profit margin of firms and vice versa.

iv. The relationship between some micro variables and construction GDP is not significant. The null hypothesis is accepted. Increase in the interest rate and inflation rate will be accompanied by a decrease in the construction GDP and vice versa.

v. Measures ranging from "Expansionary monetary policy – cutting interest rates" to "Higher Inflation Target" (RII = 0.77 – 0.68) are of very effective. Averagely, all the measures for preventing the reoccurrence of economic recession are very effective (average RII = 0.67).

CHAPTER FIVE

5.0 CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

Mixed research method approach was used in this work. Questionnaire was used for Data collection and archival data was also obtained from World Bank and CBN web. Descriptive methods of analysis were employed in this study. Findings from the analysis carried out led to the following conclusions of this research.

Nine (9) effects of economic recession were identified, ranging between “Job loss and unemployment” and “lower wages”, occurs often. On the average, construction firms experience all the effects during the period of economic recession. There is a solid, negative, and important relationship between interest rate, inflation rate, construction GDP, and the number of employees. Interest rates, inflation rates, building GDP, and company profit margins do not have a major relationship. There is no major relationship between interest rates and inflation rates, or between construction GDP and GDP. A rise in economic recession is often followed by a drop in construction firm growth, and vise verse.”. Averagely, all the effect of economic recession has a direct impact on the profit margins of contractors and, as a result, the pace of growth of construction companies. In order to propose strategies for reducing the effects of on the Nigerian construction industry, the study assessed the effect of economic recession on the growth of construction firms in Nigeria. Data was gathered from both primary and secondary sources in order to achieve this goal. Both descriptive and inferential methods of data processing were used to analyze the data. Furthermore, ‘Explanatory monetary policy – cutting interest rate ‘is the most effective measure for reducing the effect of economic recession, followed by ‘Government bailout of major firm’ and ‘ensuring financial stability’. All the steps in place to reduce the effects of recession on Nigerian construction industry's economic recession are very

successful. As a result, the economic downturn has had a major effect on construction industry in Abuja, Nigeria. Conclusions and recommendations based on the findings of the data analysis were made in order to solve the defined issue.

5.2 Recommendations

The following recommendations were made based on the research conclusions:

i. The Government should adopt 'Explanatory monetary policy- cutting interest rate'. This factor is favorable to Nigerian economy; the policy will help to boast the country's economy so that the construction industry will bounce back.

ii. Government should consider 'Bailout of major firm' as another means of reducing the ripple effect economic recession on the construction industry, such will help the constructions firms to maintain their status and retain their staff, also engage more workers.

iii. Helicopter money is seen as government direct intervention to the victims of job lost which can be of assistance at a particular period.

iv. Proper measures should be taken by the Government and construction firms to take appropriate measures to reduce the effect of economic recession on the number of employees of construction firms, profit margin of firms and construction GDP.

v. Government and construction firms should work out an implementable framework and mechanism for the adoption of the identified measures for preventing the reoccurrence of economic recession in the Nigerian construction industry.

5.3 Contribution to Knowledge

The findings from this study will be of immense benefit to the construction industry through the following findings it has made to the body of knowledge:

i. The study discovered the most important causes of economic recession are "Over dependent on oil' and "Insecurity" (RII = 0.88 and 0.85).
ii. The most significant effect of economic recession is "Job Loss" (RII = 0.89).
iii. The study identified very effective measures for preventing reoccurrence of economic recession, ranging from "Expansionary monetary policy – cutting interest rates" (RII = 0.77) to "Higher Inflation Target" (RII = 0.68).
iv. The study also found that there exists a strong, negative and significant relationship between interest rate; inflation rate; and construction GDP and number of employees of firms ($p = 0.022$; $R^2 = 57\%$).

5.4 Areas for Further Studies

The study suggested the following areas for further research:

i. Impact of economic recession on the growth rate of listed construction firms by Nigerian Stock Exchange in Nigeria.
ii. Evaluation of the factors affecting the cash flow of construction firms in Nigeria.

REFERENCES

Abu Hassan A. *et al., (*2012).Key Factors Contributing to Growth of Construction Companies: A Malaysian Experience. *World Applied Sciences Journal*, 19 (9), 1295-1304, ISSN18184952© IDOSI Publications, 2012DOI:10.5829/idosi.wasj. 2012.19.09.1454. Pg 1297

Abubakar, S. K. (2015*). The Effect of Cash Flow on Contractor's Profit in Construction of Residential Buildings in Abuja*. An Unpublished B.Tech Thesis.Department of Quantity Surveying, Federal University of Technology, Minna.

Agri, E. M., Mailafia, D. &Umejiaku, R. J. (2017).Impact of Economic Recession on Macroeconomic stability and sustainable Development in Nigeria.*Science journal of Economics,* Volume 2017, Article ID sje-130, 12 Pages, 2017, doi: 10.7237/sje/130

Ajanlekoko, O. (2016). In Uwaeg'//bulam, C., Nwannekanama, B &Otokhine, H. *Real estate, construction industry can salvage economy*. The Guardian, Retrieved from https://www.guardian.ng/

Akintoye, I.A. and Olowolaju, P.(2008), 'Optimising Macroeconomic Investment Decisions: A Lesson from Nigeria'. *European Journal of Scientific Research, 22, page* 469-479.

Aniekwu, N. (2007) Accidents and safety violations in the Nigerian construction industry.*Journal of Science and Technology*, 27(1), 81-89.

Babalola, O., Dauladi, A. and Ajiboye, A. (2015) *European Journal of Business and Management* 7 (30.)

Bassey, G. E. and Onwioduokit, E.A. (2011), "An Analysis of the Threshold Effects of Inflation on Economic Growth in Nigeria", WAIFEM Review, Vol. 8, No. 2

Bawa, S. and Abdullahi, I.S. (2012), "Threshold Effect of Inflation on Economic Growth in Nigeria", To Appear in *CBN Journal of Applied Statistics, Vol. 3, No. 1*

BBC News (2016). "Nigerian economy slips into recession". 31 August. Retrieved from https://www.bbc.com/news/business-37228741 21/8/2019

BMI (Business Monitor International). (2010). Nigeria Infrastructure Report Q2 2010,

Retrieved from http://store.Businessmonitor.com/infra/nigeria_infrastructure_report

Bhagatkar, S. V., Jaiswa, R., Kulkarni, R., Mehta, S. and Lature, A. (2015). Consequences of Economic Downturn on Construction Industry and Its Remedies.*International Journal of Civil Engineering and Technology (IJCIET)*, 6(2): 79-86. ISSN 0976 – 6308 (Print), ISSN 0976 – 6316 (Online).

Burger, P., Tyson, J., Karpowicz, I. and Coelho, M. D. (2009).The Effects of the Financial Crisis on Public-Private Partnerships.IMF Working Paper (WP/09/144) International Monetary Fund.Fiscal Affairs Department.1 – 24.

CBN (2019). 'Real Gross Domestic Product (Million Naira)'. Available at: https://www.cbn.gov.ng/Functions/export.asp?tablename=RealGDP (accessed on 20 October 2019).

Central Bank of Nigeria (2012).Economic Recession. Understanding Monetary Policy, Series No. 14.

Central Bank of Nigeria (2016*)*.CBN Economic Report for the Fourth Quarter 2016 Retrieved from https://www.cbn.gov.ng/Out/2017/RSD/CBN%20ECONOMIC%20 REPORT%20FOURTH%20QUARTER%202016%20Published.pdf on 21/08/2018

ChiakuChukwuogor&IkechukwuNdu 2018, "Review of the Nigerian economy 2003 to 2017/18: prospects for increased sustainable economic development", *African Journal of Accounting, Economics, Finance and Banking Research*, Vol. 11. No.11.

Chimobi, O. P. (2010), "Inflation and Economic Growth in Nigeria", *Journal of Sustainable Development*, Vol. 3, No. 2

Chizea, B. (1993) Interest Rates, Exchange Rates and Inflation.*The Nigerian Banker* Oct-Dec. 6-11.

Costanza, R., *et al*. (2014).Time to Leave GDP Behind.*Nature*, 505, 283-285.

Dantata, S. (2008).General overview of the Nigerian construction industry. Retrieved April 2, 2011, from www.dspace.mit.edu.

Dlamini, S. (2012).Relationship of Construction Sector to Economic Growth.Paper present at Joint *CIB International Symposium of W055, W065, W089, W118, TG76 TG78, TG81 and TG84*, Montreal, QC, Canada, June 26–29.

Enejeta, E. (2016). Reality Check: How economic recession affects the common man. July 29th. Lagos.Retrieved from: https://www.financialwatchngr.com accessed on 21/8/2019.

Erega, P. B.(2010), 'Interest Rate Variation and Investment in Nigeria'. *International Business Management, 4(*2): 41-464.

Essia, U. (2005) *Macro Economic Theory.*Calabar:Saesprint (Nig) Co.

Gbeneye, E. M. (2014). Global economic meltdown: Implications to Nigeria. *International Journal of Economics, Business and Finance*, 2(4): 1 – 9

Husseini, A. A. (1991). The Importance of Manpower Training and Management to the Construction Industry.*Proceedings of the National Seminar on Effective Contract Management in the Construction Industry*. Organized by the Nigeria Institute of Building, 22nd to 23rd August, 119-131.

Idoro, G. I. (2009). Influence of Quality Performance on Clients' Patronage of Indigenous and Expatriate Construction Contractors in Nigeria. Journal of Civil Engineering and Management, 16:65 – 73.

Isa RB, Jimoh RA, Achuenu E. An overview of the contribution of construction sector to sustainable development in Nigeria. Net Journal of Business Management. 2013;1(1):1-6.

John, S., Kevin, H. and Dean, G. (2010). Economics for Business: 5th ed. Hallow. Prince Hall Press.

Johnson, T., Feng, P., Sitzabee, W. and Jernigan, M. (2013). "Federal Acquisition Regulation Applied to Alliancing Contract Practices. *Journal of Construction Engineering Management*, 139(5): 480-487.

Khan, A. R. (2008). Role of Construction Sector in Economic Growth: Empirical Evidence from Pakistan Economy, First International Conference on Construction in Developing Countries (ICCIDC–I). Advancing and Integrating Construction Education, Research & Practice, (August 4-5, 2008), Karachi.

Khan, M. S. and Senhadji, A. S. (2001). "Threshold Effects in the Relationship between Inflation and Growth", *IMF Staff Papers*, 48.

Li, M. (2005), "Inflation and Economic Growth: Threshold Effects and Transmission Mechanism" Department of Economics, University of Alberta, Canada (Mimeograph).

Lipsey, R. and Chrystal, A. (2011). Economics: 12th edition. Oxford. Oxford University press.

Mbamali, I., and Okotie, A. J. (2012). An assessment of the threats and opportunities of globalization on building practice in Nigeria. American International Journal of Contemporary Research, 2(4):143–150.

National Bureau of Statistics.(2016). Nigerian Gross Domestic Products Report.Quarter Three, 2016.Retrieved from National Bureau of statistics: www.nigerianstat.gov.ng/ download/469.

Ngwube, A and Ogbuagu, M. (2014).Global Financial Crisis and Nigeria Economy. *Global Journal of Management and Business Research*. 14(4): 25-30.

Nkemakolam, A.C, (2017). 'Effect of interest rate reforms on the economic growth of Nigeria'. *International Journal of Social Sciences and Humanities Reviews,* 7(1). 229-25

Noko, J. E. (2016). Economic Recession in Nigeria: Causes and Solution. Retrieved from http://educacinfo.com/economic-recession-nigeria/ on 21/8/2019.

Obamuyi, T. M. (2009). 'An Investigation of the Relationship between Interest Rates and Economic Growth in Nigeria, 1976 -2006'. *Journal of Economic and International Finance, vol. 1, no.* 4, pp.093-098.

Obamuyi, T. M & Olorunfemi, S (2011). 'Financial Reforms, Interest Rate Behaviour and Economic Growth in Nigeria'. *Journal of Applied Finance and Banking*, 1(4): 39-55

Ogbebor, P. O. (2002). Enhancing Indigenous Construction Industry as a National Goal in Nigerian Development, In I. Akintunede, Nigerian Construction Industry: Past, Present, Problems and Prospects. Ibadan: Ibadan University Printery (p.230-239).

Ojo, M. O. (1993) Monetary Policy Instruments in Nigeria: Their Changing Nature and Implications *The Nigerian banker*, April-June, 6-8.

Olowo-Okere, E. O. (1985). Construction industry in Nigeria. Journal for Building and Civil Engineering Contractors in Nigeria, 2(2):6–10.

Oluwasegun, O. (2017). "The real reasons behind Nigeria's economic recession". August 28. Retrieved from http://www.yourcommonwealth.org/economic-development/the-real-reasons-behind-nigerias-economic-recession/ on 21/8/2019.

Osadume, R. 2018, 'Effect of interest rate mechanism on the economic development of Nigeria'. *International Journal of Economics and Business Management*, 4(4) 91-115

Osinowo OH. Effect of fiscal policy on sectoral output growth in Nigeria. Advances in Economics and Business. 2015;3(6):195-203. DOI: 10.3189/aeb.2015.030601

Owolabi, S. A. and Obida, S. S. (2012). Liquidity Management and Corporate Profitability: Case Study of Selected Manufacturing Companies Listed on the Nigerian Stock Exchange.Business Management Dynamics. 2(2): 10 – 25. Available on www.bmdynamics.com.

Ren and Lin (1996). The UK Construction Industry Under Cyclical High Inflation, High Interest Rates and Recession. *International Journal of Project Management*, 14(5): 301-305.

Salami, D. and I. Kelikume (2010), "An Estimation of Inflation Threshold for Nigeria (1970-2008)", *International review of Business Research papers*, 6(5): 375 – 385.

Osinowo OH. Effect of fiscal policy on sectoral output growth in Nigeria. Advances in Economics and Business. 2015;3(6):195-203. DOI: 10.3189/aeb.2015.030601

Shittu, A. A., Ibrahim, A. D., Ibrahim, Y. M. and Adogbo, K. J. (2015).Assessment of Level of Implementation of Health and Safety Requirement in Construction Projects Execution by Small Firms in Abuja.In D. R. Ogunsemi, O. A. Awodele and A. E. Oke (Eds).*Proceeding of the 2nd Nigerian Institute of Quantity Surveyors Research Conference (RECON2).*Federal University of Technology, Akure.1st – 3rd September. 467 – 482.

Tejvan, P. (2012). Negative impacts of economic recession. UK: Economic Help. Retrieved from: https://www.economicshelp.org>blog on 21/8/2019.

Tinuke, F. (2012) THE GLOBAL ECONOMIC RECESSION: Impact and Strategies for Human Resources Management in Nigeria.*International Journal of Economics and*

*Management Science.*1(6): 07-12. Retrieved from https://www.omicsonline.org/open-access/the-global-economic-recessionimpact and strategies-for-human-resources-management-in-nigeria-.php?aid=17168on 21/8/2019

Uchendu, O. (1993) Interest rate Policy, Savings and Investment in Nigeria.*CBN Quaterly Review* 31(1), 34-52.

Utile, B.J, A.O. Okwori and M. D. Ikpambese, 2018, 'Effect of interest rate on the economic growth of Nigeria'. *International Journal of Advanced Academic Research*, 4(1); 66-76

Wahab, K. A. (2005). Due process: The construction industry and the builders. *Proceedings of the 35th Annual General Meeting/ conference*.The Nigerian Institute of Building.Aba, Abia State. 2005;63-75.

Wigren R, Wilhelmsson M. (2007) Construction investments and economic growth in Western Europe.*Journal of Policy Modeling* 29(3): 439-451.

WorldBank (2019).'Real interest rate (%) - Nigeria'. Available at: https://api.worldbank.org/v2/en/indicator/FR.INR.RINR?downloadformat=excel (accessed on 20 October 2019).

APPENDIX

SAMPLE OF RESEARCH QUESTIONNAIRE

COVERING LETTER ON QUESTIONNAIRE SURVEY

Dear Sir/Madam,

Research on:
"EFFECT OF ECONOMIC RECESSION ON THE GROWTH OF CONSTRUCTION FIRMS IN ABUJA, NIGERIA"

I am writing to request you to contribute to M. Tech research, which aims at evaluating effect of economic recession on the growth of construction firms in Nigeria with a view to proffering measures for preventing the reoccurrence of economic recession in the Nigerian construction industry. The research is being carried out at the Department of Quantity Surveying, Federal University of Technology, Minna – Nigeria under the supervision of Dr. A. A. Shittu.

As part of this research, a survey is conducted to achieve the following objectives:

i. To examine the effects of economic recession in the Nigerian construction industry.
ii. To determine the micro variables and annual growth rate of construction firms in Abuja.
iii. To determine the relationship between some micro variables and construction GDP in Nigeria.
iv. To establish strategies for reducing the effects of economic recession on the Nigerian construction industry.

It would be greatly appreciated if you would fill the questionnaire as soon as possible. I want you to also note that your responses will be treated confidentially.

Thanks.

Yours faithfully,

ONUIGBO, Evangeline-Onyebueke N.
MTech/SET/2017/7298
(Researcher)

DEPARTMENT OF QUANTITY SURVEYING
FEDERAL UNIVERSITY OF TECHNOLOGY
MINNA – NIGERIA

QUESTIONNAIRE SURVEY

EFFECT OF ECONOMIC RECESSION ON THE GROWTH OF CONSTRUCTION FIRMS IN ABUJA, NIGERIA

SECTION A – RESPONDENTS' GENERAL INFORMATION

Please enter your name, position and the details of your organization.
All responses will be confidential and will not be connected in any way to yourself or your organization.

Name (Optional):_____

Gender:_____

Position: _____

Organization: _____

Years of Experience: _____

Academic Qualification:_____

Position in Site Management: _____

Telephone: _____

Postal Address: _____

Email: _____

SECTION B – CAUSES AND EFFECTS OF ECONOMIC RECESSION IN THE NIGERIAN CONSTRUCTION INDUSTRY

Q1: Please rank the following effects of economic recession in the Nigerian construction industry in order of importance based on a five-point scale in the spaces provided in the table below.

S/No	Effects	5 Most Significant	4 Very Significant	3 Significant	2 Less Significant	1 Least Significant
1	Unemployment					
2	Lower wages					
3	Government spending					
4	Budget deficit					
5	Taxation					
6	Rising bond yield					
7	Lifestyles change					
8	Credit and debts					
9	Job loss					

SECTION C: MEASURES FOR REDUCING THE EFFECT OF ECONOMIC RECESSION IN THE NIGERIAN CONSTRUCTION INDUSTRY

Q2: Please rank the following solutions identified for reducing the effect of economic recession in the Nigerian construction industry in order of importance based on a five-point scale in the spaces provided in the table below.

S/No	Measures For Reducing The Effect Of Economic Recession	5 Most Effective	4 Very Effective	3 Effective	2 Less Effective	1 Least Effective
1	Expansionary monetary policy – cutting interest rates					
2	Quantitative easing					
3	Helicopter money					
4	Expansionary fiscal policy					
5	Ensure financial stability					
6	Devaluation					
7	Higher Inflation Target					
8	A government bailout of major firms					

SECTION D: INFORMATION ON COMPANY'S GROWTH RATE

Q3: Please fill in your company's workers' annual turnover and profit margin from 2004 – 2018.
(Use additional sheets if necessary)

S/NO	Worker's Annual Turnover	5 4001 & above	4 2501 - 4000	3 1001 - 2500	2 501-1000	1 0-500
1	2004					
2	2005					
3	2006					
4	2007					
5	2008					
6	2009					
7	2010					
8	2011					
9	2012					
10	2013					
11	2014					
12	2015					
13	2016					
14	2017					
15	2018					

Q4: Please fill in your company's profit margin from 2004 – 2018.
(Use additional sheets if necessary)

S/NO	Company's Profit Margin	5 41% & above	4 30 – 40%	3 21 – 30%	2 11-20%	1 0-10%
1	2004					
2	2005					
3	2006					
4	2007					
5	2008					
6	2009					
7	2010					
8	2011					
9	2012					
10	2013					
11	2014					
12	2015					
13	2016					
14	2017					
15	2018					

Thank you very much for your co-operation.

For further enquiries please contact:

ONUIGBO, Evangeline-Onyebueke N.
MTech/SET/2017/7298
Department of Quantity Surveying

Federal University of Technology,

Minna - Nigeria.

Tel: (+234) 8027822030

Email: enyebueke@yahoo.com