

**ASSESSMENT OF THE SURVIVAL PRACTICES
OF QUANTITY SURVEYING FIRMS IN A
RECESSED ECONOMY**

AN ESSAY PROJECT SUBMITTED TO THE DEPARTMENT OF
QUANTITY SURVEYING, AUCHI POLYTECHNIC, AUCHI IN
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NATIONAL DIPLOMA IN QUANTITY SURVEYING

BY

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CERTIFICATION

This is to certify that this work "ASSESSMENT OF THE SURVIVAL PRACTICES OF QUANTITY SURVEYING FIRMS IN A RECESSED ECONOMY" was undertaken by ADEOYE GODWIN DAVE in the department of Quantity Surveying, Auchi Polytechnic, Auchi.

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DEDICATION

This research work is dedicated to Almighty God who has seen me through every thick and thin.

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Abstract

The construction industry is indisputable for its overt position in the economy of any nation. The construction industry plays an important role in a nation's economy and its activities are also vital to the achievement of national socioeconomic development goals. During an economic meltdown, the construction industry is greatly affected. The Quantity Surveying firms being a key player in the construction industry is equally affected in an economic downturn. The Quantity Surveying profession being a profession of ethical standard however still have to operate without compromising the professional ethics thereby making practices more difficult. The study was therefore set to assess the survival practices of the Quantity Surveying firms in an economic recession. The use of Statistical Package for the Social Sciences was adopted for the analysis of data obtained. The study identified 12 impacts of economic recession on the practices of the Quantity Surveying profession. The analysis of their level of impact on the QS practices revealed that the major impact of the economic recession on the Quantity Surveying practice is the reduction in the project or professional fees, reduced patronage of Quantity Surveying firms and the heightened/stiffened competition among Quantity Surveying firms. The study equally identified several survival practices available for adoption by the Quantity Surveying firms and the analysis on level of adoption of the identified survival practices, revealed that identified survival strategies like technological upgrade/use of innovative tools, process innovation, business innovation, product/technological innovation as well as the use of cost-cutting strategy records significant level of adoption among Quantity Surveying firms in coping with economic recession. However, a general evaluation of the level of significance of the identified strategies revealed that all the identified strategies are considered important hence their effective adoption is expected to yield a good result.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Construction Industry is indisputable for its overt position in the economy of any nation. The construction industry plays an important role in a nation's economy and its activities are also vital to the achievement of national socioeconomic development goals of providing shelter, infrastructure, and employment. The construction industry is invariably a significant part of the process of a growing economy especially in the area of job creation, boosting the economy, and contributing to GDP growth and national development (Osubor, 2017). The Nigerian construction industry (NCI) has proven over time to be a major contributor to the country's socio-economic development through infrastructure delivery (Aghimien, Aigbavboa, Ngcobo & Thwala, 2019). Oke, Aghimien, and Adedoyin (2018) described the industry as a motivator of Nigeria's economy. Isa, Jimoh, and Achinuena (2013) stated that the construction industry accounts for between 6%-9% of GDP in most countries but in Nigeria, it is estimated at 3%-6% and according to Lolade (2015), it is valued at about 5.7bn.

Studies have shown that employees in the construction industry form a very large workforce constituting one-half of the gross capital, and three to eight percent of the gross domestic product (GDP) in most countries (Arditi & Mokhtar, 2000; Mee-Edowe & Andawei, 2000). The construction industry is responsible for employing approximately 20% of Nigeria's workforce, making it perhaps the largest employer of construction labor in Africa (National Bureau of Statistics, 2006). However, in the delivery of these public infrastructures by the construction industry, several participants are brought together. According to Alintal-Abel and Nnadi (2015), there are diverse interests in the construction industry with the principal actors being the client, the consultant, and the contractors. In the realization of a construction project, consultants and contractors are brought together to satisfy the desire of the client. According to Munns (1996) construction project involves three groups of people who are brought together for a temporary period in which they are expected to work together towards a mutual goal. This group includes the client, the consultants, and construction contractors.

The construction consultants constitute professionals including the Architects, Engineers (civil, electrical, mechanical, etc), and Quantity Surveyors. The core objective of the construction industry is to deliver projects within a scheduled time frame, reasonable costs, and good quality (Best & De Valence, as cited in Osubor, 2017). This requires input from all the professionals in the construction industry. The various professionals have certification and regulatory bodies established by law in Nigeria and their scope of services properly defined. The various professionals offer their respective services in every phase of the construction work requiring it necessary to ensure the effective completion of the projects. Osubor (2017) however, stated

that in any construction where value for money is the watchword, the Quantity Surveyor, otherwise referred to as cost expert and economist of the construction industry, is invaluable. The Quantity Surveyor is a unique and indispensable part of the development in the construction industry.

The quantity surveyor is a Professional whose service is invaluable required in all facets of construction projects. Ashworth and Hogg (2000) described a Quantity Surveyor as a person that cost designs and produces procurement and construction documents. Babalola and Arifowose (2015) however described a Quantity Surveyor as the professional that is saddled with the cost accountability and financial probity of the construction industry. A practicing Quantity Surveyor is mostly found in Quantity Surveying Firms (QSFs) which are service-based firms providing consultancy, financial, and allied management services to their clients (Abidin, Yusof, Hassan & Adros, 2011). Oyediran (2011) views QSFs as knowledge-based firms because Quantity Surveyors sell knowledge and not physical products when in operation. It is noteworthy that this knowledge is transformed into a service that gets delivered to clients eventually.

Nigeria is one of the largest African countries but sadly has been plagued with an economic recession. The National Bureau of Economic Research (NBER) in the Wikipedia Encyclopaedia (2000) defined Economic recession as “a significant decline in economic activity spread across a country, lasting more than a few months, normally visible in real Gross Domestic Product (GDP) contraction, real personal income, employment, non-farm projects, industrial production, and Wholesale sales”. It is also believed to be a period of general economic decline and is typically accompanied by a drop in the stock market and an increase in unemployment (Okoro, 2018). This economic recession has led to so many companies including the construction companies adopting several survival practices to remain in business. According to Musso and Schiavo (2007), a survival practice of any construction company is defined as their ability to run or manage a small business with little resources to keep track of national and regional, economic indicators that might affect the construction industry and the companies’ operations. This is in line with the findings of Geroski, Mata, and Portugal (2003) which states that for a construction firm to survive in a recessed economy, they must be aggressive and imaginative in operations. this means that the company should innovate ideas to gain market share by taking it away from competitors unable to adjust to shifting market conditions, maintain a strong cash stream throughout the downturn, in contrast to other construction companies that may have liquidity problems, become a leaner, more effective and more efficient operation, better positioned to do well when the market improves. With this constraint, Madhoushi and Ghaedi (2013) believed that construction firms who survive and even prosper during hard times must be able to look beyond the present to overcome the constraint of tradition to see the firm from a new perspective and to do business differently.

The Quantity Surveying firm is an indispensable unit of the construction industry. Irrespective of any circumstance, it is binding upon the Quantity Surveying firms to operate in compliance

with the professional ethics and conducts without compromise. Thus, with the present downturn in the Nigeria economy which is a result of the decline in the price of crude oil, devaluation of the Nigerian Naira and other associated factors (Sanusi, 2010; Eboh, 2015; National Bureau of Statistics, 2015), which is bound to have a negative effect on the construction industry (Ogbu, 2017), it is necessary to assess the survival practices of Quantity Surveying firms whose role in the construction industry is crucial. This shall be done with a view to identifying possible ways to ensure survival and effective operation of Quantity Surveying Firms survive in times of recession.

1.2 Statement of the Research Problem

Eboh (2015) observed that the Nigerian economy currently faces difficulties due to the decline in crude oil prices in the international market. Added to this is the huge burden of payment of subsidies to petroleum products importers amounting to billions of Naira and to make things worse, there has been a constant political drift away from the due process where construction contract allocation is awarded only to political and government agents thereby back beating professionals such as the Quantity Surveyors and as such driving these professionals into adopting other measures of survival to remain in business. In 2014 alone, N971.1 billion was budgeted for subsidy payments. The repercussions of these have been the sharp decline in revenues accruing to the federation. Up to 8.97% of Nigeria's GDP is accounted for by proceeds from oil and gas industry activities, and crude oil earns more than 90% of Nigeria's foreign exchange (Sanusi, 2010; National Bureau of Statistics, 2015). As a result, fluctuations in revenues from this source have grave implications for the survival of construction practitioners in Nigeria as the government remains the biggest client of the construction industry in Nigeria (Aniekwu, Anthony & Kehinde, 2014). Not only that, private sector clients of the construction industry are equally linked to government expenditure; thus, a decline in Nigeria's national income has both direct and indirect effects on the survival of construction practitioners (Quantity surveyors inclusive) and this could influence their mortality rate (Ogbu, 2017). Olatunji, Oke, Aghimien, and Ogunwoye (2016) opined that, with the challenging economy in Nigeria, it is not uncommon to see construction professionals acting in manners that go against the ethics of their profession during carrying out their professional duties just to make ends meet. Murdoch and Hughes (2008) stated that Quantity Surveyors as construction cost managers are the cynosure of all eyes both within the construction industry and the country at large. Bearing in mind that construction professionals operate in a highly fragmented industry that includes different skills and professions, and where relationships and boundaries are not always clear, Quantity Surveyors are expected to display a high level of professional competence founded on genuine ethical conduct.

It has been observed that the primary aim of every profession is to serve the public. This commitment means that a true professional places the public good before mere financial reward. Acting in such a manner may on occasion conflict with an individual or client's interest. This concept is embodied in many of the profession's codes of conduct (Murdoch & Hughes,

2008; Olatunji et al., 2016). Seeley (1997) asserts that upholding professional ethics underpins the primary objectives of professional codes of practice. Providing a professional service may therefore be viewed as delivering technical skills competently and in a way, society expects of professionals.

Bearing the economic recession facing the country in mind and the need for Quantity Surveyors to demonstrate high ethical standards, this research is therefore set out to assess the survival practices employed by Quantity surveying firms in Nigeria.

1.3 Research Questions

The following Research Questions are formulated to guide the study:

- i. What is the impact of the Nigerian economic recession on the practices of Quantity Surveying firms?
- ii. What are the various survival strategies available for the Quantity Surveying Firms in coping with the recessed economy?
- iii. What is the level of adoption of these survival strategies by the Quantity Surveying Firms?

1.4 Aim and Objectives of the Study

The main aim of this research is to assess the survival practices of Quantity Surveying firms in a recessed economy with a view to identifying possible ways to ensure survival and continued effective operation of the Quantity Surveying Firms in times of recession. The underlying objectives set out for achieving the main aim of this research are to:

- i. Identity the impact of the economic recession on the practices of the Quantity Surveying firms;
- ii. Assess the various survival strategies available for Quantity Surveying Firms in coping with the recession;

- iii. Evaluate the level of adoption of these survival strategies by the Quantity Surveying firms.

1.5 Justification for the Study

Several kinds of research have been conducted on survival practices within and outside the construction industry (Ajayi, Pearce, and Mafimidiwo, 2012; Madhoushi and Ghaedi 2013; Ogbu, 2017; etc.). Schiavo and Musso (2008) conducted a study on the impact of financial constraints on firm survival and growth and the study revealed that financial constraint plays a significant role in determining the probability of firm survival, even after controlling for size, age, profitability and productive efficiency. Also, Nazirah, Nur and Hasnanywati (2014) conducted a study on the competitive strategy and performance of Quantity Surveying firms in Malaysia and it was found that the different sizes of Quantity Surveying firms (small, medium and large) are all prone to choose the differentiation strategy and least follow the growth strategy. Furthermore, Solomon and Bamidele (2018) carried a research on the implication of product proliferation strategy on the growth of organizations in a recessed economy using some selected consumable goods-firm in Nigeria and the study found out that structural competitive factors plays an important role in the determinants and market outcomes of a firm's product line decisions. Tunji-Olayeni, Oyeyipo and Nnadi (2019) however, examined the prospects of Quantity Surveyors in a dynamic world of climate change, digitalization and economic recession and the study concludes that Quantity Surveyors need to make value management a core of their business operations in times of economic recession to give clients value for money spent on construction projects

While several studies on survival in the construction industry are available, not much has surfaced on the survival practices of Quantity surveying firms in Nigeria. This gap is what this research sets out to fill. With this economic downturn, Quantity surveying firms will need to develop new survival strategies to help them stay afloat and survive this recession period. Thus, assessing these survival practices of Quantity surveying firms will go a long way in assisting the management of these firms in making critical decisions that will help in the survival of the present recession within the country. This study will enable Quantity Surveyors within the country as it hopes to bring to light other possible areas of diversification that will help them survive in terms of recession.

1.6 Scope of the Study

This research is solely set out to assess the survival practices of Quantity Surveying Firms in a recessed economy. The research exercise was restricted to Quantity Surveyors and other construction professionals in Edo State, Nigeria. The relevant data for the success of the study shall be collected there within.

1.7 Limitations to the Study

One the major limitations to the study is the challenge with time. This is because there is limited time to do justice to the research work and attend to other academic activities. Another limitation is the issue of finance as this is very crucial for the success of the research work. More so, the distribution and retrieval of the questionnaire was another limitations however, the assistance from friends and the use of virtual means in some cases brought about the success so far.

CHAPTER TWO

LITERATURE REVIEW

2.1 Concept of Economic Recession

Economic recession is the combination of two different words “economic” and “recession”. Economic is an adjective which according to Merriam-Webster dictionary means “of or relating to an economy”. Economic also means “of, relating to or based on the production, distribution, and consumption of goods and services”. According to the same dictionary, a recession is a period of reduced economic activities. The economic activities earlier mentioned are production, distribution, and consumption. According to Study.com, a recession is a general downturn in an economy. It is associated with high unemployment, slowing gross domestic product, and high inflation. Ibrahim, Lanhui, Mohammed-Gani, Ekanayake, Ibrahim, and Aree (2018) stated that a recession is a very dangerous economic virus that a mere doctor cannot cure, it is a business cycle contraction, and it refers to a general slowdown in economic activity of a country for about two consecutive quarters. Ibrahim et al. (2018), further stressed that during a recession, there is usually a serious decline in macroeconomic indicators such as GDP, employment, investment spending, capacity utilization, household income, business income, aggregate demand, aggregate supply, with an increase in the rate of unemployment and inflation.

Economic recession according to study.com is a period of general economic decline and is typically accompanied by a drop in the stock market, an increase in unemployment, and a decline in the housing market. Ayoade, Adegbuyi, and Ogunnaike (2018) defined an economic

recession as a decline in GDP for two or more consecutive quarters. GDP is the market value of all goods and services produced within a country in a given period. The National Bureau of Economic Research (NBER) in the Wikipedia Encyclopedia (2000) defined Economic recession as “a significant decline in economic activity spread across a country, lasting more than a few months, normally visible in real Gross Domestic Product (GDP) contraction, real personal income, employment, non-farm projects, industrial production, and Wholesale sales”. International Monetary Fund views economic recession as periods when the growth of an economy is less than 3% and covers a business cycle lasting between 8-10 years. It is also believed to be a period of general economic decline and is typically accompanied by a drop in the stock market and an increase in unemployment (Okoro, 2018). Gbenenye (2014) however sees the economic recession as a consequence of macroeconomic policy failure to curb inflation, increasing savings without a commensurate increase in investment by business firms and decrease in aggregate expenditure.

2.2. Causes of Economic Recession

Ayoade et al. (2018) identified the major causes of economic recession in any economy to include; High inflation, which is a general rise in the price of goods and services, resulting in low purchasing power. Mass unemployment and general loss of confidence in the government due to poor economic indices can also contribute. Other factors according to Ayoade et al. (2018) includes the Accumulation of debt servicing especially foreign debts, fall in aggregate demand, fall in wages, income, and the high-interest rate which usually discourage investor. In addition, poor economic planning and no real implementation of economic plans, the conflicting economic policies such as high-interest rate, high tax rate which are tight monetary policy measures, while at the same time adopting an expansionary policy in terms of the budget deficit can also lead a country into economic recession.

According to Iyoha Oyefusi and Oriakhi(2003), however, suggested that the factors which may cause an economic downturn include aggregate demand fluctuation which is composed of consumption expenditure of households, government expenditure, investment expenditure, and net exports. However, a decline in any of these components of aggregate demand can lead to a recession. Consumption expenditure is the single largest component of aggregate demand and it is influenced by changes in taxes, changes in transfer payment, changes in consumers' taste, changes in expectations, and changes in real interest rate. The combination of the accelerator and the multiplier tend to generate explosive expansions and acute contractions in the level of economic activities. A fall in income is accelerated by the combined effect of the accelerator and multiplier until the level of business activities is brought to a critical minimum (Iyoha, Oyefusi & Oriakhi, 2003). Kale, Maigari, and Haruna (2017) also highlighted some of the general causes of economic recession to include high inflation, a general rise in the price of goods and services- leading to low purchasing power, accumulation of debt servicing especially foreign debt high-interest rate- discouraging investors, a fall in aggregate demand; fall in wages, income, etc.

Mass unemployment and general loss of confidence in the government (Isheikwere, 2016).

2.3. A Brief Historical look at the Nigerian Economic Recession

The Nigerian economic recession came into the limelight in the year 2008 to 2009 when the annual growth rate of Nigeria dropped from over 9% to 6.7% leaving macroeconomic variables such as GDP growth rate, oil price, exchange rate, unemployment and underemployment, inflation, external reserve, etc. relatively unstable (Olarenwaju & Oyewobi, 2018). Avgouleas (2008) traced the origin of the global financial crisis to the United Kingdom and the United States in July 2007 when the global credit market experienced a standstill. In the middle of 2008, the crisis started manifesting in countries like Nigeria as it spreads rapidly resulting in a global downswing in economic activities. After the occurrence, it has been a major concern for various stakeholders around the world. However, several causes including unrestrained corrupt practices, especially the “Subprime mortgage lending” that resulted in high mortgage default and delinquency rates in the United States, uncontrolled capitalism, excessive funding to combat terrorism, and wrong ideology that the “Free market” principle is good and workable have been noted by economic analysts (The New York Times, as cited in Olarenwaju & Oyewobi, 2008). Kolawole (2009) stated that the annual report of Organisation of Petroleum Exporting Countries (OPEC) indicated that Nigeria is ranked fifth in the production and exportation of crude oil in the world. Crude oil has been regarded as an outstanding source for stimulating wealth towards economic growth. The source of revenue has pulled in various stakeholders and economists of the world at large to build up exquisite interest in the oil sector. Gbolahan (2010) stated that the decrease in oil price in July 2008 from 147 USD per barrel to 47 USD per barrel auspicates a booming risk in Nigeria’s economy which significantly resulted to the reduction in the oil revenue of the Nigerian government. Cash flow is critical for the success of any construction project. Investors lose confidence in the economy and

The capitalisation of construction firms declines as a result of divestment during the economic recession (Bhagatkar as cited in Olarenwaju & Oyewobi, 2018). Economic recession is a business cycle contraction, and it relates to a general downswing in economic activity in a country for two successive quarters. In the year 2008 to 2009, the annual growth rate of Nigeria has dropped from over 9% to 6.7% as a result of the economic recession. The other causes of the 2008 Nigerian economic recession have been attributed according to Aichengreem (2004) by some researchers to financial instability, unstable fiscal and monetary policy, excessive borrowing and spending by politicians, weak financial systems and institutions, and unstable macroeconomic policy.

In 2016, Nigeria’s real GDP growth rate in the first quarter was -0.36% while the second quarter was -2.06% (Central Bank of Nigeria, 2016). From 2015 to 2016, crucial macroeconomic indicators like growth rate, oil price, exchange rate, unemployment and underemployment, inflation and external reserve were seriously affected with percentage change of 4.32%,

26.92%, 58.48%, 7.1%, 5.0% and 10.5% respectively (Olarenwaju, Idiako, Oyewobi & Akanmu, 2018).

During recession, according to Olarenwaju et al (2018), there is usually a turn down in certain macroeconomic indicators such as employment, capacity utilization, GDP, inflation, business income investment spending and household income couple with outrageous increase in the rate of unemployment. In 2008, unemployment rate was almost 14.9% and ascended aggressively

to about 23.9% in 2011 (Central Bank of Nigeria, 2012).

2.4 Causes of the Nigerian Economic Recession

Adeniran and Sidiq (2018) stated that there are two main causes of recession in the Nigerian economy; economic recession caused by global economic and financial crisis and economic recession caused by other Nigerian factors. The causes of the Nigerian economic recession can be attributed to several factor. However, the Central Bank of Nigeria (CBN) (2012) categorized the various causes of economic recession into two broad factors; internal (endogenous) factor and external (exogenous) factor. The endogenous factor accounts for all the factors which the policy makers have control over. The endogenous factors causing economic recession is usually as a result of conflict of ideas, misapplication of economic theory and regulation or negligence or policy inconsistency. The recent economic recession in Nigeria according to Ibrahim et al. (2018) was caused by these internal factors which include; mismanagement of funds by the past administration, corruption, import restrictions, budget approval delay etc. The external causes of recession have to do with factors that are exogenous to the economy over which policy makers have little or no control. Factors like a natural disaster, climate change, Boko Haram insurgency, vandalization of oil pipeline by the militants, Herdsmen-Farmer's crisis, unexpected fall in oil price, implemented policies on the OPEC nations, etc. Agricultural economies normally face crop failure resulting in a general economic slowdown. Also, a mono-economy could suffer recession from international price shock for its product.

In general, the causes of the Nigerian economic recession can be attributed to the following factors;

2.4.1 Mismanagement of funds by the past administration

Ibrahim et al. (2018) identified the mismanagement of funds by the past administration as one of the major causes of the recent economic recession in Nigeria. Ibrahim et al. (2018) presented a brief review of the past administration stating that during the late Umaru Musa Yar Adua administration (2007-2009), he inherited \$45.0 billion as an external reserve from President Obasanjo. In September 2008, the external reserve grew to \$63 billion and left \$47.7 billion as of December 31st, 2009 when Jonathan took over as overseer. The increase in the external reserve was a result of rising in the price of crude oil in the World market to \$147 per barrel. It then slide in mid-2008 during the recession when the price of crude oil crashed to \$35 per

barrel in 2009 till his death. When President Goodluck Jonathan took office after the death of Yar Adua, he inherited \$3.94 billion as debt, and as of 2014, the debt raised to \$9.3 billion. President Jonathan inherited \$47.7 billion in the foreign reserve account as of December 31st, 2009. As of 2010, oil prices shut up again to \$89 billion per barrel. In 2011, it was \$103 per barrel and as of early 2013, it was \$100 per barrel. However, this means that the immediate past administration have access to more money than late Yar Adua, but depleted our foreign reserve account and still purge the country into further debt with nothing to show and the money from excess crude oil was not invested and instead it was shared among very few class of people in the country. Therefore, it is very clear that the mismanagement of funds by the past administration was the major cause of the recent economic recession in the country

2.4.2 Corruption

Another major cause of this deadly economic disease as identified by Ibrahim et al. (2018) and agreed upon by various other researchers is corruption which is the father of the day in our country. Corruption is a disease, which eats into the cultural, political, and economic growth of any country and as well destroys the functioning of various organs of the government. Obviously, in the case of developing countries like Nigeria, where limited resources that are initially allocated for industries, hospitals, road construction, schools, and other infrastructure are either, embezzled, misappropriated, or otherwise severely depleted through kickbacks and over-invoicing by government officials. The most painful part of this corruption is that after our wealth has been stolen, instead of it being invested in the country, they are rather taken to other unknown people to benefit than their own people. The value of money is not only its purchasing power but also its generating power. Having money and not channeling it into the economy is a total waste.

2.4.3 The Introduction of the Treasury Single Account (TSA).

Ibrahim et al. (2018) stressed that the introduction of the so-called Treasury Single Account (TSA) also paved the way to the recession. Yes, of course, the TSA was a good policy idea that if properly implemented will help in blocking the loopholes in the economy and minimize the level of corruption in the country but instead it cleared up liquidity in the circulation and silenced credit creation and economic activities in the country.

2.4.4 The recent fall in the price of crude oil in the world market

The fall in global crude oil prices is another factor. Nigeria is described as a mono-economy in which the economy depends on only one sector of the economy can easily be affected by the fluctuations in the global economy. Thus, the benchmark oil price for 2016 budgetary allocation was changed to reflect the current realities. This later translated into a restrictive budgetary allocation as well as contractual monetary and fiscal policies. Especially, the most state

government in the country could not pay their workers" salaries because of the dwindling budgetary allocation from the federal government (Ibrahim et al., 2018).

2.4.5 The security problem

The security problem in the country has a serious effect on both economic activities and the entire human life. This problem includes the Niger-Delta militant problem on oil production which is the life wire of this nation, the herdsmen/farmers conflicts on agricultural production in all parts of the country particularly in the North-Central and North-East of the country, and the problem of Boko Haram activity on agricultural output and trade in North-East. All these problems have contributed to the recent economic recession in Nigeria (Ibrahim et al., 2018).

2.4.6 Poor Economic Planning

Poor economic planning and no concrete implementation of her economic planning is the major cause of Nigeria's current recession. yes, the government has proclaimed the usual generalities that every government indulges itself in; Diversifying the economy, Improving the manufacturing/mining sector, Raising agricultural output, Encouraging foreign investment, among others, yet no concrete evidenced strategic plan for growth.

No doubt, the government has taken some steps like the elimination of dollar purchase privileges for importers of 40 items such as rice, cement, toothpicks, private planes, poultry, meat, margarine, wheelbarrows, textiles, and soaps. The government has, on the other hand, caused serious poverty in the land by her. The government through her policy widen the gap between the rich and the poor –creating more economic hardship. For instance, when the Central Bank of Nigeria (CBN) was selling dollars at N197 and people were buying at N300, the highly placed individuals in the country were putting a call across the banking industry to get the dollar at the official rate. This they later resell at the parallel market rate of N300. Think of how much some

of them were making. An individual can make as much as N1 billion naira without doing anything according to the former CBN governor, Sanusi Lamido (Kale et al., 2017).

2.4.7 High Inflation Rate

Government banning the importation of certain essential agricultural products like rice without considering the gestation period is an error. Removal of fuel subsidies shouldn't be simultaneous with the banning of these agricultural products. Nigeria's inflation rate currently stands at 17%, which is extremely high (Kale et al., 2017).

2.4.8 High-Interest Rate

The interest rate is between 26.77-27%. Is extremely high for investors. This high-interest rate is discouraging investors. The poor investment culminates in a high rate of unemployment in the country (Kale et al., 2017).

2.4.9 High Taxation

It is only in Nigeria that you see the government charging a high tax rate during an economic recession. Small businesses are slaughtered with high interest rate. Both high interest and tax rate has lowered Nigeria's aggregate demand (Kale et al., 2017).

2.4.10 Policy Conflict

The economic policies appear conflicting. How? High-interest rates, high tax rates are tight monetary policy measures. But the government told the public it is adopting an expansionary policy-budget deficit (Kale et al., 2017).

Other causes of the Nigerian economic recession as identified by various researchers include;

Niger-Delta Militant Activities, High Rate of Importation, The Debt Game, The Changing Dynamics of Over Population, Outright Corporate Greed exhibited by various companies and service providers, The national relocation of employment, growing gap between the elite and the impoverished, other factors: these include ethnoreligious crises, political instability, fraud, leadership crises, disease burden, budget priority, and implementation, etc.

2.5 Effect of the Nigerian Economic Recession

Any downturn in economic activities affects all aspects of national and human life. Many people usually lost their jobs, families usually adjust their budget during the recession and in the process, social activities are also affected. Thus, Ibrahim et al. (2018) identified the following as some of the effects of the recession on the economy;

2.5.1 Effect on business activities

Under the normal economic assumption, when household incomes are cut as a result of economic slowdown, they reduce their demand for goods and services. As a result of the low

demand for goods and services from households, firms reduce their production of such goods and services in order to cut costs and profit will decline. So, by cutting their production, workers would be laid off in order to minimize the cost of production, there will be no buying of new equipment, no funding for research and development, no new product rollouts, and general business activities would also fall. In general, recession affects both small and large businesses (Ibrahim et al., 2018).

2.5.2 Effect on Product Quality Compromise

Ibrahim et al. (2018) explain that as a result of the decrease in the number of goods bought, revenue will surely fall. Thus, recession affects the revenue of firms, and by extension, profitability. In an effort to cut costs and improve its bottom line, the firm could compromise product quality.

2.5.3. The Effect on Household Expenditure and Consumption

Ibrahim et al. (2018) stressed the recent economic recession in the Nigerian economy affect every sector of the economy. They further lamented that both the rich and the poor are adversely affected by the economic recession. Findings show that during the crisis, the prices of foodstuff and other basic needs has increased by more than 100%. The price of a bag of rice which was sold for about \$24 to \$26, later sold for \$64 to \$67 which is above the minimum wage of a worker, bag of maize that was sold at about \$14 to \$17 was later sold to about \$35, price of groundnut oil and palm oil have increase by 100 percent, cement that was sold for \$4 was later sold at \$8 only to mention few among many commodities whose price has doubled with reduce quantity and quality. The recession has caused extreme poverty and suffering of the masses; children stopped going to school, cost of living has gone extremely high for the poor and the middle-income earner.

2.5.4. Unemployment Effect

The recession has had a devastating impact on employment worldwide. Unemployment is one of the major signs of recession in the economy. When consumers cut their demand for goods because of the increase in the price of the goods, producers will be left with so many unsold products which reflect in their revenue and which also, in turn, affect their profits. So the best thing for any company/firm to do is to find a way to minimize its cost of production and this can only be done by reducing the number of its workers. And already there are millions and millions of energetic people on the ground that are able and capable to work but have no any work. So, as a result of laying off some workers by the companies/firms as a result of the recession, it will lead to an increase of the unemployment rate in the country (Ibrahim et al., 2018).

2.5.5 Health Effect of Economic Recession

Economic down turn and recession in the globe has affected people across the world in many ways. Health impacts of these recessionary factors are the most severe ones especially, in an already stressed health care delivery system like ours. The overwhelming impact of the

recession would undoubtedly result in increased rate of malnutrition anaemia, infant and maternal deaths, communicable and non-communicable diseases, psychological disorder, social maladaptive behaviours, and violence to mention a few (Sowunmi, 2009). Currently 46 million Americans are without health care insurance and the number of Americans who are opting-out of their current company's health insurance programme is also increasing (Louise, 2008). The consumer with health care coverage has decrease in spending for health care needs. Paying for health care appointments, prescriptive drugs and test related to prevention were declining (Furmans, 2008). Kale et al. (2017) however, itemized the health effect of economic recession as follows;

1. Total health spending in countries that have been affected by an economic downturn tend to fall. The cost of imported medicines, raw materials and medical equipment will increase.
2. Falling remittances.
3. Reduced spending has an impact on health and education, and ultimately on the well-being of families and the development of the community as a whole.
4. Utilization of health services:- decreasing health spending, increased cost of treatment, and reduced family income and/or assurance coverage will affect use of health services and their quality.
5. A significant reduction in spending or life-saving intervention will increase mortality.
6. Shortages of food and consequent malnutrition predispose individuals to disease and thus, act in vicious concert with the economic downturn.
7. Official development assistance for health tends to fall during periods of recession, but this is not always the case.

2.6 The Built Environment (The Nigerian Construction Industry)

According to Agbataekwe (2005), construction is an age-long art that involves scientific design. It is concerned with infrastructural development, which is pivotal for national economic growth. The construction industry encompasses most aspects of human endeavors which includes the construction of roads, dams, jetties, irrigations, offices, houses, airports, seaports, power stations, heavy engineering facilities (e.g refineries), and other environmental facilities.

It (construction) stands out vis-à-vis the manufacturing industry. However, every nature of the activity of man on this planet - Solid and Semi-Solid, components into another. Construction is synonymous with production. However, production is more embracing than construction. For instance, it entails transformation and fabrication of physical components; we say production of cars, production of mill lamps, touches, etc. however, we may not easily say, the production of roads, bridges, schools, homes, etc.

Okoro (2005) however, sees construction as physical involving component-to-component manipulation and transformation of materials into another physical unit. It controls the nation's Gross Fixed Capital Formation (GFCF) and accounts for more than 65% of total capital investment. Therefore, it contributes substantially to the Gross Domestic Product (GDP) of the nation. It is a vast industry employing millions of workers and offers unlimited opportunities (Agbatakwe, 2005).

Iroegbu (2005) revealed that Nigeria's construction industry is modeled largely after the British system although, since independence, it has taken into consideration, the style of other Western countries notably, Italy, France, Germany, United States of America etc. He noted that the construction industry is a potent motivator of the national economy providing the driving force necessary for either sustaining a buoyant economy or reviving a depressed economy, stressing that many developed countries have successfully revised their national economies by maintaining high levels of activity in the construction industry.

Construction Industry is indisputable for its overt position in the economy of any nation. The construction industry plays an important role in a nation's economy and its activities are also vital to the achievement of national socio-economic development goals of providing shelter, infrastructure, and employment. The construction industry is invariably a significant part of the process of a growing economy especially in the area of job creation, boosting the economy, and contributing to GDP growth and national development (Osabor, 2017).

The Nigerian construction industry (NCI) has proven over time to be a major contributor to the country's socio-economic development through infrastructure delivery (Aghimien, Aigbavboa, Ngcobo & Thwala, 2019). Oke, Aghimien, and Adedoyin (2018) described the industry as a motivator of Nigeria's economy. Isa, Jimoh, and Achinuenta (2013) stated that the construction industry accounts for between 6%-9% of GDP in most countries but in Nigeria, it is estimated at 3%6% and according to Lolade (2015), it is valued at about 5.7bn

2.7 The Nigerian Quantity Surveying Firm and the Quantity Surveyor.

Onyeagam, Eze, and Adegboyega (2019) see Quantity surveying firms (QSFs) as business organizations inducted and registered by the Quantity Surveying Registration Board of Nigerian, QSRBN, to provide financial and construction project management consultancy services to their clients. The Quantity Surveying Firm is a professional service organization in the construction industry that provides consultancy services as well as manages financial-related issues for their clients (Abidi, Yusof, Hassan & Adros, 2011; Page, Pearson & Pryke, 2004). The functions of the

Quantity Surveying Firms are serviced-based as noted by (Abidin et al., 2011; Oyediran, 2011). Oyediran (2011) stressed that it is a major requirement for QSFs to be registered with the corporate affairs commission, CAC, to be able to practice in the Nigerian construction market. QSFs are knowledge-based, construction-based business organizations run by Quantity surveyors (s) who transform their knowledge or expertise into services that are eventually delivered to clients/customers. The clients to which the Quantity Surveyor renders his services according to Kawu (2011) include government, private developers, and investors among others. When in operation, the QSFs do not sell physical products but knowledge. It has been observed that only a very few of QSFs are involved in government developmental projects, and this has resulted in their performance being adjudged less impressive.

Aluthwela and Perera (2017) stated that the Quantity Surveying Firms employs the services of Quantity Surveyors and other resources to carry out quantity surveying activities. They depend on the skill, expert knowledge of the Quantity Surveyors to meet the client's needs. A quantity Surveyor according to Ashworth and Hogg (2000) is a person that cost designs and produces procurement and construction documents. Ojo (2011) explains that a Quantity Surveyor estimate and manage the cost of construction projects. Dada and Jagboro (2012) see the Quantity surveyor as a professional who is responsible for providing independent expert advice on the cost, financial, economic, and commercial management services of a building or civil engineering construction project. Babalola and Arifowose (2015) however described a Quantity Surveyor as the professional that is saddled with the cost accountability and financial probity of the construction industry. Badu and Amoah (2003) surmised that the Quantity Surveyor analyses the elemental and trade costs of the components of construction work; adopt its findings to proffering solutions to the problem found in each project. The quantity surveying profession has transited over time from being a trade-based vocation into a well-developed profession that is widely recognized in the construction industry. Quantity surveyors assist developers and designers in solving financial and economic problems by carrying out a detailed cost analysis of the components of construction projects in a more refined and scientific way as well as providing professional advice. In addition to the roles of the Quantity Surveyors, they now administer contracts, act as witnesses on arbitrations/legal issues, play project manager roles, financial advisors, and construction managers (Perara et al., 2007; Ashworth and Hogg, 2002; Leveson, 1999). However, the modern-day Quantity Surveyor according to Moss (2004) is viewed as a client representative (or advocate) who is skilled in the design, planning, administration, and management of construction contracts and projects from commencement to handing over.

Eze, Awodele, and Seghosime as cited in Onyeagam et al. (2019) stated that in recent times, QSFs are only considered for their cost management function in the procurement of building projects, which is attributed to their reduced involvement by the government in developmental projects across Nigeria. Onyeagam et al. (2019) equally reported that the engineers argued that the Quantity surveyors lack the capability to provide cost management function on engineering projects which form the bulk of government projects. This position is however disproved by Eze

et al. (2017) who attributed the low patronage of the Quantity Surveyors by the public to the high cost of hiring the professionals. It was observed that other construction-based professionals are involved more in the conception and execution of public projects than the Quantity Surveyors (Jagun, 2006).

2.8 The Impact of the Nigerian Economic Recession on the Construction Industry

The Nigerian construction industry according to Noko (2016) is believed to have grown since the 1940s when it was thought to have officially become an organized sector with few foreign companies. And since then, the construction companies have increased in size, In fact, the construction sectors of the economy as the post rebasing data in the construction industry shows a much more optimistic picture, as more modern construction activities have been captured, and prices correctly deflated.

So many sectors are affected by the occurrence of recession. While some sectors are seriously affected, some are mildly affected. Since the built environment is a major employer of labor, most recession changes it drastically. Nwannekanma (2016) lamented that the economic infraction and recession have forced investors and stakeholders to pull out from the equity market leaving the government as the primary player, who borrowed extensively at a very high rate. The high-interest rate is hindering firms from taking loans from banks and investment houses and this has affected the number of projects executed by the construction industry (Morenikeji, 2006). Olarenwaju et al (2018), highlighted some of the impacts of the Nigerian economic recession on the construction to include the following;

1. High rate of unemployment
2. High rate of bankruptcy
3. Reduction in mortgage lending rate
4. Fluctuation in the cost of transportation and distribution
5. Fluctuation in cost of raw materials
6. Unbearable credit conditions
7. High rate of rehabilitation and maintenance works
8. Construction companies face financial problems
9. Loss of confidence in future prospects
10. Contraction in the new housebuilding segments
11. Difficulties in obtaining credit insurance

12. Reduction in the execution of civil engineering works.

Studies by Yamden (2011) also lamented that the economic crisis has affected the economy of Nigeria in a myriad of ways through; falling exchange rates, reduction in volume and oil price, reduction in tourism, soaring risk aversion, decrease in the foreign investment portfolio, crumbling equity market, and reduction in foreign credit lines and low remittances.

More so, the Central Bank of Nigeria (2012) listed the impact of economic recession on construction and different sectors of the economy to include; Cash crunch influenced by the external investor because of the absence of motivating force, Rate of interest and supply, high rate of indigenous production are influenced by the rot in the infrastructure, Fluctuation in the capital market as at time of March 2008 has driven the CBN to concede safeguard to guarantee they remain long in this economic meltdown, Sudden withdrawal of funds saved by the different bodies

because of this economic recession, Inadequate funds prompt failure of infrastructures e.g. transport, road, communication, etc., Too much issues and in addition pressures confronted by the CBN to tackle the global crisis, Lack of capacity and commitment displayed from the Nigerian government to finance joint venture in the oil and gas upstream sector, Inadequacy to achieve the dream of some key national program like small and medium enterprise development agency (SMEDAN) and National Poverty Eradication Program (NAPEP) which are pointed towards poverty reduction and to help the economy, and The oil and gas project in Nigeria was placed at risk because of the consideration that it may take a long time before completion which is as a result of the increase in the foreign direct investment.

2.9 The Impact of the Nigerian Economic Recession on Quantity Surveying Firms

Juhany, Chew, and Tang as cited in Rahim, And-Rahman, Wang, Othman and Zainon (2013), stated that construction firms are mainly relying in the number of construction projects to survive. The Quantity Surveying practice is indispensable in any construction development project. An economic downturn or recession has a significant effect on the number of construction projects hence the Quantity Surveying practices will be much affected (Kaklauskas, Kelpsiene, Bardauskiene, Kaklauskas, Urbonas and Sorakas, 2011). while highlighting the impact of economic recession on quantity surveying firms, Rahim et al (2013) stated that the impact of the economic recession can be seen on the Quantity Surveying firms in the decline of jobs, projects and professional fees. Rahim et al (2013) further stated that the competition among the Quantity Surveying consultants stiffed during the economic recession.

2.10 The need for the Nigerian Quantity Surveying Firms to adopt survival strategies/Innovate.

Apart from Climate change and Digitalization, Economic recession is another issue that businesses contend with. According to the National Bureau of Economic Research Business Cycle Dating Committee (2003), economic recession is a season of great decline in business activities that lingers for a couple of months, usually obvious in the growth of Gross Domestic Product, industrial production, income levels of households, wholesale retail sale and employment.

In the last forty years, several economic recessions have taken place, with negative impacts on both developing and developed nations. The last economic recession of 2008/2009 according to Priewe (2010) originated from the United States of America. The recession was due to state and market failure, imbalances in national assets globally, and the ‘Triffin paradox’. The recession had a global effect because nations have become more connected as a result of international trade and linkages. In Nigeria, many sectors were affected by the economic crisis. The construction sector in particular had its own share of the economic crisis. Ajanlekoko (2016) sighted an instance that new projects were hardly awarded; plants could be seen lying idly on most construction sites and newly constructed facilities were left unoccupied.

The business landscape is becoming more challenging with climate change, digitalization and economic recession determining the way businesses are run. Hence Quantity Surveyors need to understand, adopt and implement strategies/innovations to survive in the midst of these challenges.

2.10.1 Innovation and its Importance

An examination of the innovation literature shows diversity in views and approaches to what innovation activities are. Innovation according to Slaughter (1998) means the genuine use of significant improvement and change in a process, product or system that is unique to the firm

developing and devising the change. Innovation can also be seen as change, creative thinking, perception, invention, and entrepreneurial philosophies. In summary, it is the implementation of creative ideas within an organization. Goh (2006) stated that Innovation in most developing economies is the key determining factor for organizational growth, and it is at the center of organizational competitiveness in the economy. More so, according to Barret and Sexton (2006) for firms to achieve and sustain competitive advantage, the firm must balance and integrate innovation in their policy statement.

Reichstein, Salter, and Gann (2005) stressed that the need for innovation is well recognized and plays a central and critical role in clarifying industry productivity, economic progression, and foreign trade. Innovation contributes and strengthens firms' competitive advantage through the establishment of new value propositions, offering novel or unique products or services, and by continuously redefining the cost/performance boundary (Dodgson, Gann and Salter, 2005; Shaw, 2010). Dulaimi, Nepal, and Park (2005) observed that a significant substitute to the overwhelming cost-based competition that is facing the construction industry can be provided through innovation. Innovation, according to Reichstein et al (2005) and Goh (2006), supports revenue generation and profits of firms in times of recession and according to Dulaimi et al. (2005), improves the chances of winning new jobs, and meeting and satisfying clients' desire. Innovation is a major strategic tool of competition, which triggers wider market penetration and broadens profit generation (Seaden, Guolla, and Doutriaux, 2003; Goh, 2006).

2.11 Survival Strategies/ Innovations for Quantity Surveying firms in an Economic Recession

Barrett et al. (2001) observed that successful innovation enables construction firms to well satisfy the aspiration and needs of society and clients. Blayse and Manley (2004) added that the organization needs to innovate to win projects. The practice of innovation is an essential issue for most firms or organizations principally for those whose environment of operation is competitive and dynamic, as they need to continuously devise new business models, products, and services to survive. Innovative practices have operational existence in different stages of business; hence for sustained growth and survival of a firm or an organization, persistent innovative practices are essential which would enhance service delivery in the firms (Onyeagam et al., 2019). Onyeagam et al. (2019) stressed that the business landscape is becoming more challenging with climate change, digitalization, and economic recession determining the way businesses are run. Hence Quantity Surveyors need to understand, adopt and implement strategies/innovations to survive in the midst of these challenges. In view of this, three major dimensions of innovations are highlighted as follows;

2.11.1 Process Innovation

Process innovation is one of the dimensions of innovation. Process Innovation according to Wang and Ahmed (2004) is the improvement of the production and management process in an organization through the introduction of new production procedures, new management approaches, and new technologies. It is generally perceived as the introduction of new elements and features into an organization's services and production processes. These elements, according to Reichstein and Salter (2006) include materials input, information exchange mechanisms, workflows, task specifications, production or services rendering equipment with the major aim of achieving better product quality and lower cost.

2.11.2 Product/Technological Innovation

Another dimension of innovation as highlighted by Onyeagam et al. (2019) is Product/Technological innovation. Process/Technological innovation according to Wang and Ahmed (2004) has gained much attention because of the success of a product and the sustainability of the success of business growth, and expansion into new areas depending on it. Wang and Ahmed (2004) defined product innovation as the significance and ingenuity of new ideas or products introduced to the competitive market at a suitable period. Polder, Leeuwen, Mohnen, and Raymond (2010) see product innovation as a new or (significantly) improved good or service.

2.11.3 Business System Innovation

The third dimension of Innovation as highlighted by Onyeagam et al. (2019) is the Business system innovation, which according to Sawhney, Wolcot, and Arroniz (2011) is adjudged to have a broader scope than process and production innovations. In spite of this, Vilà and MacGregor (2007) confirmed that the business concept of innovation is neglected during the measurement of the overall innovation capacity of companies. Business innovation according to Sawhney et al. (2011) is defined as the establishment of substantial or radical novel value for customers and the firm by creatively changing one or more of the current business systems or completely establishing novel business systems. They further stressed that business innovation is only germane if it creates value for customers (new value, not new things) and if the customers are willing to pay for it, thereby creating value for the firm.

2.12 General Essential Strategies for Firms' Survival in an Economic Downturn

Olanike, Amina, and Amina (2020), in their assessment of the effect of recession on firm construction contracts in Kaduna state, highlighted the following key strategies for firms' survival in an economic downturn.

1. **SWOT (Strength Weakness Opportunities Threats) Analysis:** SWOT analysis according to Tinuke and Fapohunda (2012) involves specifying the objective of the

business venture or project and identifying the internal and external factors that are favourable or unfavourable to achieve that objective. SWOT analysis focuses on capitalizing on strengths, eliminating weaknesses, seizing opportunities, and combating threats. This strategy focuses on internal factors and tells to make a sincere attempt on the present state of things. This strategy as explained by Nwannekanma and Victor (2016), involves scoping out defensible positions within the industry structure with the objective of retaining existing clients that bring in a major part of the revenue and becoming their trusted source for advice.

2. **Cost-cutting Strategy** The cost-cutting strategy otherwise referred to as the retrenchment strategy, involves expenditure cuts on a wide variety of activities (working hours, employment, marketing, research and development, training, inventory, pay freezes) is steered by the common belief that it is easier to reduce operating costs than to generate additional revenue. However, cost-cutting according to Roberts, Clare, and Ken (2012) needs to be executed prudently, with intelligence and thoughtful decision-making. Is it better to selectively lay off employees, realign compensation, and restrict hours.
3. **Entry in Related Business Areas:** At times of recession, many civil engineering firms can delve into trendy new initiatives such as green buildings, sustainable power and energy, geographic information systems, parks and recreation, medical records and data analysis, transportation and construction oversight, subsurface utilities, and energy-efficiency projects. (Prabhat & Meenu, 2015).
4. **Aggressive Growth:** This strategy according to Prabhat et al. (2015) aims to succeed using better strategic thought to reposition the business, taking intelligent risks, identifying winning businesses making tough business decisions, investing for the future,

improving capabilities through innovation and differentiation of capabilities from competition to emerge the winner when the slowdown starts.

5. **Diversification Construction:** by diversification construction, Shrunkhal, (2015) suggests that firms can expand business through joint marketing with other engineering companies and specialized contractors. For example, electrical contractors specializing in environmental work can help to develop a turnkey approach to bidding for energy-efficiency projects in green buildings, augmenting it with traditional design, civil engineering, fabrication, construction, and maintenance services.
6. **Mergers and Acquisitions:** Merger and acquisition strategy to achieve growth takes advantage of synergies to defend or strengthen market position, grow into a new geographic allocation with a higher likelihood of success, reduce costs by eliminating redundant expenses, reduce competition, create barriers for entry of other firms, increase revenues from economies of scale, acquire niche technologies and talented people, and bring in additional clients from related business segments (Georges, 2010).
7. **Entry into Emerging Markets:** Construction firms can also expand the geographic reach of the organization, especially in nascent international markets, which have tremendous demand for design and construction services in infrastructure, water, and power projects. Many engineering and architectural firms are using the recession to position themselves in overseas markets, where demand is often growing (Chrstal 2011).
8. **Divestiture Strategy:** Kettinger, Grover, Guha, and Segars (2014) explained Divestiture of business and closure of establishment as a macro level retrenchment strategy that is used to prune or close poorly performing units, sell a division or business line that no

longer fits, or divest non-core assets to recoup good economic value (Kettinger et al, 2014)

9. **Innovation or Technological Upgrade:** According to John, Kevin, and Dean (2010), Some organizations look at innovation and technological upgrades as a way to get ahead of their rivals and to position the firm for future growth, while many new businesses use it as a strategy for entering the marketplace,

10. **Restructuring Strategy through RBV (Resource Based View) Theory:** Eadie, Slabbert, and Steyn (2012) stated that in times of economic slowdown most of the companies cut down the resources such as manpower for surviving. Furthermore, they don't recognize the importance of employees' idiosyncratic capabilities, proprietary construction processes, and equipment that cannot be obtained in the factor markets.

2.13 Innovative tools/concepts and Information handling among Quantity Surveying Firms in Nigeria.

With the latest improvements in the industry coupled with the explosion in information technology, stakeholders in the industry find it practically impossible to handle and disseminate all available and relevant information (Perera, Hemaijth, Dilanthi, & Ginige, 2007). The fragmented nature of the Construction Industry, of which according to Oladapo (2006), Quantity Surveying firms are a major component, in which case according to Maqsood, Walker, and Finegan (2004) and the demand for heavy exchange of data and information between project participants on a daily basis makes it more imperative to implement information technology (IT) and other innovative tools/concepts. Construction professionals are required to have the capability of managing and communicating projects information and documents; this according to Oladapo (2006), is the general competency required of them. Thus, effective information management in the form of information flows enables rapid inter and intra-organizational communications. For Quantity Surveying practices, the most common Innovative tools/concepts for handling information flow include but are not limited to QS Elite, Vector, Digitizers, AutoCAD, Autosketch, SuperProject, Master Bill, WinQs, QSlotus, Computer-Aided Taking Off (CATO), Estimator Pro.MB3, QS Cad, RIPAC, CANDY, On-Screen Takeoff Pro, QS Plus2001 and Masterbill (MB3+) (Willis et al., 1994; Murray et al., 2001). These tools do not only reduce the length of time for discharge of Quantity Surveyors' duties but also enhance the accuracy of their functions from the estimating stage to the preparation of final accounts.

Although not all have adopted these innovative tools because of operational inhibitors like educational problems, a high cost of software, poor return on investments among others (Oyediran & Odusami, 2005), a good number of the firms have overcome these challenges.

2.14 Effects of Economic Recession on the Nigerian Construction Industry

Olarenwaju et al. (2018) identified the effects of the global economic recession on the Nigerian construction industry and the findings revealed that the High rate of unemployment, high rate of bankruptcy, Reduction in mortgage lending rate, Fluctuation in the cost of transportation and distribution, Fluctuation on the cost of raw materials, Unbearable credit conditions, High rate of rehabilitation and maintenance works Construction companies face finance problems, Loss of confidence in future market prospects, and Contraction in the new house building segment was found to be the most significant effects of the global recession on the Nigerian construction industry. Olanike et al. (2020) found out in their study of the effects of the economic recession on firm contracts in Kaduna State that Unemployment, budget shortage, cuts to the quality of goods and services, the decrease of private construction activities, rising bond yields, employee lay-offs and benefit reductions, increased inequality, loss of output, and lower wage are the major effect.

2.15 Adoption of the various Dimensions of Innovation among Quantity Surveying Firm

A report from the study by Onyeagam et al. (2019) reveals that the most commonly used or adopted innovative tools/concept are MS Excel, Computer-Aided Taking-off (CATO), CA Estimating, Auto Sketch, Digitizers, Microsoft Project, BIM and CAD, QS Lotus, and Value Management. On the aspect of process innovation, Onyeagam et al. (2019) concluded that the Quantity Surveyors adopt and implement new processes of rendering service in their organizations. However, with respect to the adoption of Product/Technological innovation, Quantity Surveying firms within the study area adopt innovation because they believe innovation is just a tool for getting things better, rather than end-product, Within their firms, they are able to implement new services used by other organizations, Quantity Surveying forms usually introduce a familiar and well-known design to the client, and Quantity Surveying firms see creating new services as critical to their success.

2.16 Summary of Literature Review

Previous studies have addressed the issue of Economic recession both from the global perspective as well as the national perspective. Several factors have been identified to be the causes of the Nigerian construction industry and several other areas have been treated. The missing link however is that most, if not all of the studies have not specifically addressed the issue from the point or perspective on which this study is intended. Hence the need for this study as it is specifically set to evaluate the impact of the recession on the Quantity Surveying firms as well as identify and evaluate the level of adoption of the various survival strategies by the Quantity Surveying firms in the economic recession.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter highlight the various methods that was adopted/used in Achieving the aim and objectivecd cd cdc dcds of this research work and it also does an over view of what these methods are, and how they was employed to achieve the set objectives. It has to do with the research design, research population, sampling frame, sample size, sampling techniques, data collection instrument, procedure for data collection and method of data presentation and analysis. Below are the components of the methodology for this research.

3.2 Research Design

The descriptive survey research design was used in this research. According to Mark and brown (1985) the descriptive survey research tries to identify variable that exist in a given situation and tries to describe the relationship among the variables as well as identify the factors that exist among such variables.

3.3 Research Population

A population is any group of individuals that has one or more characteristics in common and that are of interest to the researcher (Cresswell 2005). Therefore the target population of this study comprised construction professionals/participants in the built environment in Edo state. A total population number of 130 was used which comprises of the aforementioned professionals. It is impossible to test everyone in the population, so it is highly crucial to select a good sample to represent this population.

3.4 Sampling Frame

The adequacy of sample is addressed by how well it represents the whole participants from which the sample is drawn. For the purpose of this study, a sampling frame of 130 respondents randomly selected from the various professionals/participants in the built environment will be selected.

Table 3.1 sampling frame of respondent

Respondents	Number of respondent
Quantity surveyors	45

3.5 Sample Size

Kothari, (2005) defines sample as a small group of respondents drawn from a population about which a researcher is in interested in getting information so as to arrive at a conclusion. The study selected respondent among construction professionals for the assessment of the implementation of public procurement act in the award of construction contract. According to Brandon as cited in Ebekozien (2012)), there are several approaches to determining the sample size. These include using a census for population, initiating a sample size of similar studies, using published tables, and applying formula to calculate a sample size. The sample size in respect of the various categories of respondents was determined using the following formula, as used by Yamane (1967), an equation to yield a representative sample for the population.

$$n = \frac{N}{1 + N(e)^2}$$

Where n = Sample Size

N = population size

e = Level of Precision or standard accuracy (0.05)

Table 3.2 Sample size for the study population

Professionals	Number of respondent
Quantity surveyors	45

3.6 Sampling Techniques

Sampling techniques is a process of selecting a number of individuals or objects from a population to represents the entire population (Kothari, 2004). The purposive or judgment sampling method was adopted in this study. Purposive sampling is a technique widely used in research for the identification and selection of information-rich cases for the most effective use of limited research due to the homogenous nature of the respondents (Questionnaire).

3.7 Data Collection Instrument

The research instrument that was used for this study is the standardized structural questionnaire that will be used to collect primary data for the study. The research questionnaires consisted of two sections. Section “A” containing personal data of the respondents and section ‘B’ containing questions on the subject matter.

3.8 Method of Data Collection

For the purpose of this research study, primary and secondary data was used for data collection for analysis. The primary sources of data was based on the administration of questionnaire, while the secondary sources included textbook, journals, student’s guide to write research and project proposals, Past Project and internet sources.

3.9 Method of Data Presentation and Analysis

The analysis of the data was carried out with the help of statistical package of social sciences (SPSS) and was carefully analyzed statistically using descriptive statistics table, percentage, frequency, mean score to draw inferences.

3.9.1 Table

A table is used to display numeric and non-numeric data in an organized and well coordinated manner (Noaum, 1999). It is usually arranged in rows and columns in each, displaying specific information used in this study to display collected data and analyzed information respectively.

3.9.2 Percentage

Percentages are any given ratio multiplied by 100. It helps in rating the number of factors according to degree of occurrence attached (Olabisi, 2004). A percentage describes how many parts are there out of one hundred parts of a particular thing

Mathematically $P (\%) = \frac{n}{N} \times 100$

Where P = Percentage

n = Value of the item

N = total value of the item

3.9.3 Frequency

Frequency is the rate of occurrence of anything, the relationship between incidence and time period. The period is the duration of time of once cycle in a repeating event so the period is the reciprocal of the frequency.

3.9.4 Mean Score

Mean can be defined as a central value such that both positive and negative deviations from it ultimately cancel themselves out (Olabisi, 2004)

Where F = Frequency of respondent's choice of the scale

X = points on the likert's scale

E = Summation of all the scores

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION.

4.1: Introduction

A total of one hundred (116) questionnaires was administered among respondents in Edo State and eighty questionnaires was recovered successfully which was analyzed for this research work. SPSS was used for data analysis using frequency for the analysis of the demographic information of respondents and Mean item score for the analysis of relevant data.

4.2: Data presentation

Table 4.1: Respondents' type of organization

Type of organization	Frequency	Percent (%)
Client	22	27.5
Consultancy	23	28.75
Contractor	15	18.75
Developer	20	25.00
Total	80	100

Source: field survey, 2022.

Table 4.1 reveals the type of organization of the respondents. A total of 22 respondents amounting to 27.5% works for client, 23 respondents amounting to 28.75% are in a consultancy firm, 15 respondents amounting to 18.75% works for contractors and a total of 20 respondents amounting to 25% are Developers.

Table 4.2: Respondents' firm or organization size

Size of organization	Frequency	Percent (%)
Large	10	12.5
Medium	45	56.25
Small	25	31.25
Total	80	100

Source: field survey, 2022.

Table 4.2 shows the respondents' firm or organization size. The table revealed that 10 numbers of the respondents' firm equivalent to 12.5% is a large firm, while a total of 45 numbers of the respondents' firm is a medium firm and 25 numbers equivalent to 31.25% is recorded for small respondents' firm size.

Table 4.3: Respondent's years of experience

Years	Frequency	Percent (%)
1-5	20	25.00
6-10	25	31.25
11-15	15	18.75
16-20	15	18.75
Above 20	5	6.25
Total	80	100

Source: field survey, 2022.

Table 4.3 reveals the respondent's years of experience. According to the table, a total of 20 equivalent to 25% of the respondents have 1-5yrs range of experience, 25 amounting to 31.25% of the respondents have 6-10yrs range of experience, 15 respondents amounting to 18.75% have 11-15yrs of respondents, likewise 15 amounting to 18.75% of the respondents have 16-20yrs of experience whereas a total of 5 (6.25%) of the respondents have above 20years of experience.

Table 4.4: Years of respondents' firm in operation

Years	Frequency	Percent (%)
1-5	20	25.00
6-10	25	31.25
11-15	15	18.75

16-20	15	18.75
Above 20	5	6.25
Total	80	100

Source: field survey, 2022.

Table 4.4 reveals the years of respondents' firms in operation. According to the table, a total of 20 numbers, equivalent to 25% of the respondents' firms have been in operation for 1-5yrs range, 25 numbers, amounting to 31.25% of the respondents' firms have been in operation for 6-10yrs range, 15 numbers of the respondents' firms amounting to 18.75% have been in operation for 11-15yrs range. Likewise, 15 numbers, amounting to 18.75% of the respondents have 16-20yrs of experience whereas a total of 5 (6.25%) of the respondents have above 20years of experience.

Table 4.5: Respondent's highest academic qualification

Academic qualification	Frequency	Percent (%)
PhD	5	6.25
Msc./M.tech	35	43.75
PGD	10	12.50
B.sc/B.tech	25	31.25
HND	5	6.25
Total	80	100

Source: field survey, 2022.

Table 4.5 reveals the academic qualification of the respondents. The table revealed that a total of 5 respondents amounting to 6.25% have PhD as their highest academic qualification, 35 of the

respondents amounting to 43.75% have M.sc/M.tech as their highest academic qualification, a total of 10 (12.50%) of the respondents have PGD as their highest academic qualification, a total of 25 of the respondents equivalent to 31.25% have B.sc/B.tech as their highest academic qualification while a total of 5 respondents amounting to 6.25% have HND as their highest academic qualification.

Table 4.6: Respondents' Professional Qualification

Professional membership grade	Frequency	Percent (%)
Fellow member	5	6.25
Corporate member	35	43.75
Probationer	15	18.75
Graduate	25	31.25
Total	80	100

Source: field survey, 2022.

Table 4.6 reveals the professional membership grade of the respondents. According to the information presented in the table, 5 respondents equivalent to 6.25% of the total respondents have attained the Fellow professional membership. 35, equivalent to 43.75% of the respondents are Corporate members. 15 respondents, equivalent to 18.75% of the respondents are Probationers whereas 25 respondents equivalent to 31.25% of the total respondents are mere Graduates in the profession.

Table 4.7 Impact of Economic Recession on the Quantity Surveying Practices

Identified impacts of economic recession	Mean	Rank
Reduction in project and professional fees	3.69	1
Reduced patronage of Quantity Surveying firms	3.56	2
Increased competition among Quantity Surveying consultants	3.50	3
Inability to implement staff development programs	3.31	4
Reduced staff welfare implementation	3.29	5
Suspension in the pay rises of staff salaries	3.00	6
Possible stall salary reduction/delayed payment	2.95	7
Increase in unemployment resulting from laying off of staffs	2.91	8
Loss of confidence in future prospects	2.57	9
Possible firm extinction	2.52	10

Bankruptcy	2.35	11
Difficulty in obtaining credit insurance	2.12	12

Source: field survey, 2022.

Table 4.7 shows the identified impacts of economic recession on the Quantity surveying practices. The evaluation of their level of impact revealed that identified impacts like reduction in project and professional fees, reduced patronage of Quantity Surveying firms, increased competition among Quantity Surveying consultants, inability to implement staff development programs as well as reduced staff welfare implementation with the mean scores; 3.69, 3.56, 3.50, 3.31, and 3.29 respectively records significant recognition as the most probable impacts of economic recession on Quantity Surveying practices. Others like suspension in the pay rises of staff salaries, possible staff salary reduction/delayed payment as well as increase in unemployment resulting from laying off of staffs equally recorded significant recognition as major impacts of economic recession as they were attached the mean score; 3.00, 2.95, and 2.91 respectively.

However, other identified impacts like loss of confidence in future prospects, possible firm extinction, bankruptcy as well as difficulty in obtaining credit insurance recorded relatively low consideration as major impacts of economic recession on the Quantity Surveying practices and as such attached the mean scores; 2.57, 2.52, 2.35 and 2.12 respectively.

Table 4.8 Survival strategies available for Quantity Surveying firms in coping with economic recession.

Identified survival strategies	Mean	Rank
Process innovation	3.78	1
Product/technological innovation	3.76	2

Technological upgrade/use of innovative tools	3.76	2
Business system innovation	3.74	4
Cost-cutting strategy	3.71	5
Restructuring strategy through resource-based view theory	3.69	6
SWOT analysis	3.67	7
Aggressive growth strategy	3.65	8
Entry into emerging projects	3.63	9
Performance failure/Design risk insurance	3.61	10
Divestiture strategy	3.58	11

Source: field survey, 2022.

Table 4.8 presents the evaluation of the level of significance of the various identified survival strategies available for Quantity Surveying firms in coping with economic recession. The evaluation, as presented in the table, revealed that all the identified survival strategies available for Quantity Surveying firms in coping with economic recession including process innovation, Product/technological innovation, technological upgrade/use of innovative tools, business system innovation, cost-cutting strategy, restructuring strategy through resourced based view theory, and other identified survival strategies were considered very significant for Quantity Surveying firms' adoption in coping with economic recession as they record a close mark mean score evaluation of 3.78, 3.76, 3.76, 3.74, 3.71 and 3.69 respectively.

Table 4.9 Level of adoption of the available survival strategies for Quantity Surveying firms in coping with economic recession.

Identified survival strategies	Mean	Rank
Technological upgrade/use of innovative tools	3.72	1
Process innovation	3.67	2
Business system innovation	3.65	3
Product/technological innovation	3.62	4
Cost-cutting strategy	3.58	5
Restructuring strategy through resource-based view theory	3.53	6
Entry into emerging projects	3.45	7
Aggressive growth strategy	3.43	8
Merger and acquisition strategy	3.37	9

SWOT analysis	2.97	10
Divestiture strategy	2.85	11

Source: Field survey, 2022.

Table 4.9 presented the evaluation of the level of adoption of the identified survival strategies in Quantity Surveying firms. The evaluation, as presented in the table reveal that identified survival strategies like technological upgrade/use of innovative tools, process innovation, business innovation, product/technological innovation as well as the use of cost-cutting strategy with the mean scores; 3.72, 3.67, 3.65, 3.62, 3.58, and 3.53 respectively records significant level of adoption among Quantity Surveying firms in coping with economic recession. While identified survival strategies like restructuring strategy through resource-based view theory, entry into emerging projects, aggressive growth strategy, merger and acquisition strategy, SWOT analysis as well as the use of divestiture strategy receives relatively low level of adoption as they are attached the mean scores; 3.45, 3.43, 3.37, 2.97, and 2.85 respectively.

4.3: Analysis and Discussion of Findings.

A total of 80 questionnaires was retrieved out of 91 questionnaires distributed and was analyzed for this study. The respondents' response to the demographic aspect of the questionnaire revealed that the respondents with PhD as their highest academic qualification accounts for 6.25%, those with M.sc/ M.tech accounts for 43.75%, those PGD as their highest academic qualification accounts for 12.5%, respondents with B.sc/B.tech accounts for 31.25% while respondents with HND as their highest academic qualification accounts for 6.25%. on the respondents' years of experience, the findings revealed that 25% of the respondents have 1-5yrs range of experience, 31.25% of the respondents have 6-10yrs range of experience, 18.75% of the respondents have 11-15yrs range of experience and same percentage of the respondents have 16-20yrs range of experience while a total of 6.25% of the respondents have above 20 years of experience. It further revealed that a total of 27.5% of the respondents works for clients, a total of 28.75% of the respondents are in a Consultancy organization, 18.75% of the respondents are in contracting organization while a total of 25% of the respondents are developers.

Furthermore, a look at the respondents' professional membership grade revealed that 6.25% of the respondents have attained Fellow, 43.75% of the respondents are Corporate members, 18.75% of the respondents are Probationers while a total of 31.25% of the respondents are yet Graduates in the various professions.

The Quantity Surveying practice is indispensable in any construction development project. Kaklauskas, Kelpsiene, Bardauskiene, Kaklauskas, Urbonas and Sorakas, (2011) stressed that an economic downturn or recession has a significant effect on the number of construction projects hence the Quantity Surveying practices will be much affected. This study however identified the various impacts of the economic recession on the Quantity Surveying practices. Analysis of the various impacts of economic recession on Quantity Surveying practices revealed that the major impact of the economic recession on the Quantity Surveying practice is the reduction in the project or professional fees, reduced patronage of Quantity Surveying firms and the

heightened/stiffened competition among Quantity Surveying firms which emerged 1st, 2nd, and 3rd with the mean scores; 3.69, 3.56, and 3.50 respectively. This is in line with the statement of Rahim et al (2013), when he stated that the impact of the economic recession can be seen on the Quantity Surveying firms in the decline of jobs, projects and professional fees also stating that competition among the Quantity Surveying consultants stiffed during the economic recession.

The effect of the economic recession especially on the Nigerian construction sector cannot be overemphasized. It has however, become a necessity to adopt and implement strategies to cope with the situation. Blayse and Manley (2004), stressed that organizations need to innovate to win projects, adding that the practice of innovation is an essential issue for most firms or organizations principally for those whose environment of operation is competitive and dynamic, as they need to continuously devise new business models, products, and services to survive. In view of this undeniable necessity to innovate, this study took a bold step to identify some survival strategies/ innovative concepts available for Quantity Surveying firms in coping with the economic recession. The identified survival strategies include; process innovation, Product/technological innovation, technological upgrade/use of innovative tools, business system innovation, cost-cutting strategy and restructuring strategy through resourced based view theory among others. The evaluation of their level of significance shows that all the identified strategies are considered of utmost significance in coping with the economic recession by Quantity Surveying firms.

As significant as these strategies may be, it is the implementation/adoption of these strategies that will yield the expected result. Hence, this study took a further step in determining the level of adoption of the various identified strategies for survival in an economic recession.

The evaluation revealed that identified survival strategies like technological upgrade/use of innovative tools, process innovation, business innovation, product/technological innovation as well as the use of cost-cutting strategy records significant level of adoption among Quantity Surveying firms in coping with economic recession. While identified survival strategies like restructuring strategy through resource-based view theory, entry into emerging projects, aggressive growth strategy, merger and acquisition strategy, SWOT analysis as well as the use of divestiture strategy receives relatively low level of adoption.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS.

5.1 Introduction

This chapter summarizes and present observations and inferences arrived at, after careful analysis and evaluation of the data obtained for this research work. Conclusion from observations is made, recommendations are also made in this chapter and subsequent areas for further research are suggested.

5.2 Conclusion.

After careful assessment of the results obtained so far, conclusions have been reached that Quantity surveying firms need to adopt the various survival strategies as well as carry out innovative measures to cope with economic recession to ensure continuity of existence and remain profitably in business. Though, the use of technological approaches has recorded significant adoption among Quantity Surveying firms, however, there is need for advancement in the use of technology by the Quantity Surveying firm in executing tasks. This includes the use of latest software in carrying bill preparation and project management activities.

5.3 Recommendations.

Base on the conclusions drawn from the findings, it is therefore recommended that;

1. Quantity Surveying firms consider an upgrade in their current use of technological approaches in carrying out their services.
2. Quantity Surveying firms should not limit their services to certain aspect of construction activities. Hence, they should venture into the new and emerging construction/infrastructural related works.
3. Quantity Surveying firms should carry out SWOT analysis of their services frequently so as to find out areas requiring improvement.

5.4 Suggested Area for Further Research

For the purpose of addition and improvement to the findings of this research, it is suggested that further studies should be carried out to assess measures to improve the patronage of Quantity Surveying firms in a recessed economy.

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