Risk Management Practices in the Commercial Banking Industry in Nigeria.

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Dedication

I dedicate this thesis to my family, most notably to my late parents who gave me education and succour from my tender age because they believe education is a companion which no misfortune can depress, no enemy can alienate, no despotism can enslave, and without it, one will be a splendid slave and reasoning savage.

Declaration

I declare herewith that this research is my original work and all the sources of information cited in this thesis have been duly referenced and that no portion of the work referred in this thesis has been submitted in support of an application for another degree or qualification in other university or institution of learning.

Name: Rasheed A. Bello

Signed:

Date: 2020

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List of Abbreviation:

NGN – Nigerian Naira

GDP – Gross Domestic Product

USD – United States Dollar

OPEC – Organisation of Petroleum Exporting Countries

CBN – Central Bank of Nigeria

APF – Asset Purchase Facility

DMO – Debt Management Office

NFA – New Financial Architecture

DCO – Dominion, Colonia and Overseas

BOFID – Banks and Other Financial Institutions Decree

FX – Foreign Exchange

OBS – Off-Balance Sheet

NDIC – Nigeria Deposit Insurance Corporation

BCBS – Basel Committee on Banking Supervision

CRAR – Capital Risk-Adjusted Ratio

ERP – Enterprise Resource Planning

NSE – Nigerian Stock Exchange

CSF – Critical Success Factor

KRA – Key Result Areas

BPR – Banking Process Re-engineering

BPM – Business Process Management

CRO – Credit Risk Officer

WFMS – Workflow Management System

ICAAP – Internal Capital Adequacy Assessment Process

PCAOB – Public Company Accounting Oversight Board

STATA – Statistics and Data (General Purpose Statistical Software Package)

OLS – Ordinary Least Square

VIF – Variance Inflation Factor

KMO – Kaiser Meyer Olkin

RESET – Regression Equation Specification Error Test

FGN – Federal Government of Nigeria

Abstract

The study examined the critical success factors leading to effective risk management practices in the commercial banking industry. This entailed the evolution of the Nigerian banking system with a focus on commercial banks. Examination of the dynamic of the Nigerian banking system since 1960 involved the exploration of the extant literature on risk management to identify and evaluate the critical success factors for effective risk management practices.

Further, a mixed-method approach involved interviews and a questionnaire to collect relevant data from randomly selected commercial banks in Nigeria. The data collected from the interviews was exclusively used to identify the major risks facing the commercial banks in Nigeria, and the risk management challenges confronting these banks. While the respondents identified ten critical factors facing commercial banks in Nigeria, the regression analysis found six to be statistically significant: strategic alignment, internal audit and compliance, information technology, trust, organisational structure, and customer involvement. Although the coefficients of these variables were expected to be positive, the regression analysis showed that the coefficients of two variables - organisational structure and customer involvement - were negative.

Keywords: *Risk Management, Critical Success Factors, Challenges, the Nigerian banking industry*

Chapter One: Introduction

1.0. Introduction

The Nigerian banking crises have demonstrated the tendency of banks to take excessive risks and that the nature of the risks also differ across banks. Some banks are more prudent with improved capability to manage the banking crises. Other banks engage in more risky activities than their capital warrants. Hence, in order to stem the tide, in 2004 the Central Bank of Nigeria (CBN) introduced measures to make the entire banking system a safe, stable and sound environment that would command public confidence. It is not often possible to eliminate these risks, but the probability of a loss can be reduced by changing some of the circumstances relating to the loss. These changing circumstances often create a new set of risk, while the responses taken can lead to better planning and well-organised risk management techniques. Therefore, it has become more critical than ever for banks to manage effectively the various types of risk they confront.

Risk management is a foundation of prudent banking practice. Unquestionably, all banks in the present-day volatile environment are facing a large number of risks such as market risk, liquidity risk, interest rate risk, credit risk foreign exchange risk among others – risks that may threaten a bank's success and survival. In other words, banking is a business of risk. For this reason, efficient risk management is absolutely required. Hence, the purpose of this thesis is to study the risk management practices of banks in Nigeria. In doing so, it is important to gain more knowledge and have an in-depth understanding of risk management practices in order to examine those critical factors that contribute to effective risk management practices (Sumner, 2000; Skidelsky, 2009).

It is against this background that this thesis is presented in different threads to provide the research overview. The sections cover the background of the research, the aim and objectives and the research questions, the rationale and significance of the study and the thesis structure. The study adopted an interview approach with each of the head of risk management of banks to discuss, understand and document the risk management system in the Nigerian banking sector. The study considered different types of risk that are common within the commercial banks in Nigeria and assessed the level of risk understanding and risk management in Nigerian banks. For this purpose, the researcher collected data through questionnaires from different staff. This is because risk management is not the sole responsibility of head of risk management units in banks, but all bank staff, particularly those who are specifically tasked with risk management responsibility (Barth, Caprio and Levine, 2001; Aebi, Sabato and Schmid, 2012). Many scholars contend that proper understanding of various risks and risk management among the banking staff improves the ability of the banking industry to manage its risks (Power, 2004; Al-Tamimi and Al-Mazrooei, 2007; Eccles, Newquist and Schatz, 2007).

1.1. Research Aim, Questions and Objectives

The main aim of the study is to determine the critical success factors that contribute to effective risk management practices in the commercial banking industry in Nigeria. The specific objectives include:

- The identification and evaluation of those critical factors that determine success; and
- The examination of the critical factors for effective risk management practices.

Given these objectives, the research questions are as follows:

I. What are the major risks facing commercial banks in Nigeria?
II. What are the risks management challenges facing commercial banking industry in Nigeria?
III. What factors contribute to effective risk management practices in the Nigerian banking system?

1.2 Background to the Study

The research background is divided into three threads. First, a brief overview of Nigeria as the country under consideration is provided. There is also a discussion of the financial service and Nigerian-banking situation, before the role of the banking industry to Nigerian economy and the global financial crisis are examined.

1.2.1 Brief overview of Nigeria

Nigeria is a West African country that is located on the Atlantic Ocean along the Gulf of Guinea and has a population of about 196 million as at 2018, while its currency is the Nigerian naira (NGN). The country is rated as the seventh most populous country in the world and has 36 states with its federal capital territory in Abuja. Nigeria is a middle-income, mixed economy and emerging market, with expanding technology and entertainment, communications, financial service and manufacturing. According to the Nigerian Bureau of Statistics, gross domestic product (GDP) for 2017 is estimated at 373 billion United States Dollar (USD) (Akeju and Olanipekun, 2014; Kusek and Silva, 2018).

Nigeria has the largest economy in Africa, and it is recognised by prominent members of the global investment community and economists to be an up-and-coming market with remarkable potential growth (Akeju and Olanipekun, 2014). The country is a member of Organisation of Petroleum Exporting Countries (OPEC) since 1971, and is ranked the eleventh oil-producing nation in the world and the largest in Africa (Onoh, 2017). Both domestic and foreign investment from major players in the telecommunications sector and engineering industry is being attracted, while international banks are willing to capitalise on the expansion of West African market infrastructure, particularly Nigeria's market and its expanding financial service segment (Udeh and Onwuka, 2018).

1.2.2 The Financial Service and Nigerian Banking Situation

Financial institutions came in to place to improve the efficiency, productivity and the effectiveness of the financial markets (Oldfield and Santomero, 1995; Merton, 1995). The Nigeria financial services include stock markets (discount houses), banking institutions (deposit money banks), insurance companies, Bureaux-de-change, developed finance institutions and Micro-finance bank. The Nigerian banking sector plays a major role in contributing to the overall productivity of Nigeria financial services, contributing over seventy-five (75) per cent in local market and considered as the most important sector of the economy.

The Nigerian banking system has been in existence for more than a century. According to the Banking Act 1979, banking can be defined as a financial institution that receives deposits from customers in the course of a business transaction, in order to provide safety and security to the depositor’s funds. The banking system in Nigeria has experienced tremendous transformation over the years in terms of its operations, a number of banking institutions, and ownership structure. The changes occurred mostly by embracing supervisory and prudential requirements, which is in line with international standards, technological improvements, globalisation of operations, and challenges that occur as a result of deregulation of the financial sector (Soludo, 2004; Ogunleye, 2005; Ogujiuba and Obiechina, 2011; Oluduro, 2015).

The Central Bank of Nigeria (CBN) (2012) highlighted that Nigeria banking sectors are facing numerous challenges; such as board members self-centred practices, board members fraudulent activities, oversight functions of some ineffective board members, inefficient internal controls, and non-compliance with laid down regulations, guidelines, laws and rules. In addition, poor risk management practices, non-compliance with internal controls and operational procedures, and the domineering influence of Chairmen or MDs/CEOs, especially in family-controlled banks, are major challenges faced by the Nigerian banking sectors. According to the CBN, this has contributed to the poor state of the banking industry in Nigeria (Ezeoha, 2007; Sanusi, 2010; CBN, 2012). In addition, the following problems arise from the unique nature of the banking system and peculiar operations of the banks:

- The instability of the bank may lead to a severe adverse effect that would affect some banks or even the entire financial system of the economy.

- The inability of depositors in safeguarding their deposits due to information asymmetry.
- Lack of transparency in the banks' assets and their opaque nature.
- Banks contributing immensely to the development of the economic-financial systems and serving as an essential engine for economic growth.

Because of its significant influence and significance to the economy, the banking system cannot be handled laxly. Therefore, there is a need to investigate those serious problems such as the risk that threaten the core of their existence. The future of the banking will thus depend on the risk management dynamics. Banks that have efficient and effective risk management in place will survive in the market in the long run (Merton, 1995; Soludo, 2004; Sanusi, 2010; Wapmuk, 2017).

1.2.2.1 The Role of the Banking Industry in the Economic Growth of Nigeria

The role of the banking industry in the economic growth of any nation cannot be overemphasised. Money can be viewed as the lifeblood that sustains any modern economy, and this blood flows through the banking system, which serves as the vein through which the blood (money) circulates throughout the body (the economy) (Shell, 1993). Hence, any policy that affects the banking industry will indirectly or directly impact the whole economy, and the Nigerian economy is not an exception.

Economic development comprises of investment in different sectors of the economy. Because banks collect funds from depositors and use the same fund for investment purposes, they thus play an important role in this economic growth. They provide the funds as loans to investors to finance projects. The banking system serves as a catalyst of development for the growth to every sector of the economy (Hellwig, 1991; Wanniarachchige, Miah and Suzuki, 2017; Ogbuabor et al., 2018). Banks, mainly commercial banks, contribute to the process of increasing the wealth of the economy, especially capital goods needed for raising productivity. Thus, for a country to attain economic growth, the service of the banking system plays a pivotal role.

The banking sector has the capability to influence major saving prospects and propensities. Therefore, sustainable economic growth can be achieved within the economy amidst strong financial institutions, specifically within the existence of a strong banking system (Hellwig, 1991; Okoye and Okpala, 2001). One of the principal agents in the process of economic development is the banking system (Schumpeter, 1934). While commercial banks, in particular, do not only facilitate the process of economic development, they speed up the process by ensuring and making adequate funds available from the mobilised resources to the investors. Furthermore, banks support comes in the form of promoting international trade and the relationship between countries and providing backup liquidity to the economy through the following activities:

- Encouraging investment by providing direct loans to individuals and government for investment purposes.
- Engaging in providing managerial advice to small-scale industrialists who do not engage the service of a specialist.
- Commercial banks creating money as an instrument to the apex bank for all its activity.
- Supporting the enhancement of the development of international trade, which includes issuing traveller’s cheque for those going abroad, acting as referees to importers, and providing credit for export.
- Rendering financial support/advice to their customers on various investment issues (Schumpeter, 1961; Okoye and Okpala, 2001; Achua, 2008; Sanusi, 2010).

The Nigerian banking system is characterised by some structural deficiencies including high interest and transaction costs, lack of long term financing, high debt default rate resulting in substantial bad debts, dependence on FOREX and government deposits, inadequate capital base, and overburdened regulatory framework. These weaknesses have impacted negatively on the economy. However, the current credit crises and financial turmoil have questioned the effectiveness of many banks activities for sustainable economic development in Nigeria. This has led to the bank's consolidation (banking reforms) in order to build a stronger banking sector as a remedy for financial instability to improve operational efficiencies and larger and better-capitalised institutions.

The major driving forces in bank consolidation is better risk management practices to improve overall credit risk (Okoye and Okpala, 2001; Soludo, 2004; Dell'Ariccia, Detragiache and Rajan, 2008; Sanusi, 2010; Owojori, Akintoye and Adibu, 2011). The banking reform has become repetitive activities in emerging and developing economies of the world, particularly in Nigeria. The reform is set mainly to achieve high economic growth, macroeconomic goals of price stability, internal and external balances, and full employment in order to ensure a viable and stable economy (Balogun, 2007; Sanusi, 2010; Gidigbi, 2017). The banking reform in Nigeria focused on building confidence in the banking system, financial stability, and financial intermediation. Hence, In Nigeria, the apex bank (Central Bank of Nigeria – CBN) has been charged with the responsibility to manage the financial institution and dynamic role to manipulate financial factors to boost the economy. The roles played by CBN are very crucial to economic growth in Nigeria, because any irregularity in its policy could put the whole economy into serious condition, as the structure of Nigeria's economy is bank-based (CBN, 2012; Ujunwa et al., 2012; Gidigbi, 2017). In this regard, the following functions are played by the CBN – The Apex Bank:

- **Serve as Banker to banks and other financial institutions:** The Central Bank of Nigeria manage the account of all financial institutions operating within the country, including the commercial banks.

- **Serve as adviser and banker to the Nigerian Government:** The

Apex bank serves as adviser and banker to the Federal government; this includes accepting of deposits from the government, offering financial information and counseling to the government on economic, fiscal and monetary issues, and providing foreign exchange for purchase of foreign goods/services and payment debts.

- **Debt Management:** In compliance with the federal ministry of finance instructions, the Apex bank manages domestic debt, by providing advice to the FGN on the size and timing of new debt instruments, pays principal and the interest as at when due, and informs to the FGN on the consequences of the debt's size and budget deficit, and so on.

- **Control of credit:** This is one of the major functions of the CBN. The Apex bank regulates the volume, and the direction of bank loans maintains a stable external value of the home currency (Naira – NGN).

- **Lender of last resort:** the CBN accepts trade finance responsibilities on behalf of bank's customers and provides temporary accommodation to banks and other financial institutions in the performance of its functions as a lender of last resort.

- **Custodian of National Reserves:** The CBN acts as the keeper of the country's reserve of gold and international currency and ensures adequate safeguarding of the reserves.

- **Control and supervision of other banks:** The Apex bank supervises and controls all the bank's operations through inspection of bank accounts, bank mergers and licensing.

- **Regulates the laws to balance the inflation and deflation in the economy:** The CBN plays the developmental finance role through its credit schemes, such as small and medium scale industry credit schemes, commercial agricultural credit scheme, and many others.

- **The monopoly of Note-Issue**: The CBN has withdrawn the right of note-issue from other banks and taken full control of it.

- **Strengthening the bank structure:** In order to strengthen the nation's banking structure, the CBN took various steps such as the extension of banking facilities in the unbanked areas and deposits insurance.

- **Maintenance of the foreign exchange rates:** The CBN maintains and controls the rate of exchange by conducting foreign exchange operations at some specified exchange rates.

- **Monetary stability:** One of the defining characteristics of the CBN is monetary policy decision-making. The Apex bank promotes efficient, reliable and smooth operation of national payment and settlement systems.

- **Clearinghouse for cheques and other financial instruments the Central Bank performs the duty of a Clearing House for cheques:** The CBN settles the accounts of commercial banks and helps to facilitate clearing their duties by the process of book entries.

- **Promotes consumer protection and community development:** The Apex bank promotes consumer protection because of the customer's significance to every business success and in the development of the nation's economy.

- **Maintains economic growth and set interest rates to target low inflation:** The Apex bank inspects every aspect of the economic activity and assesses various economic statistics to get a clearer picture of the entire economy. In order to improve liquidity in the credit markets, the CBN serves as an Asset Purchase Facility (APF) by buying "high-quality assets financed by the Treasury bills and Debt

Management Office (DMO’s) cash management operations”.

1.2.2.2 Problems Facing Nigerian Banks

Many banks in Nigeria do not effect strict banking practices regarding savings intermediation, which is supposed to be their core functions; rather, they engage in trading in government treasury bills, importing of goods through phoney companies and trade in foreign exchange, which is not healthy for the economy (Soludo, el at., 2007, p.12; Balogun, 2007). As Soludo et al. (2007, p.12) notes, in the Nigerian banking system, groups of individuals in many banks use their influence and connection to get banking licenses, which enables them to accumulate billions of Naira in deposits from some government parastatals. They then use these deposits in trading in foreign exchange, open letters of credit for importers and in government treasury bills. At the end of the financial year, such banks declare billions of Naira in profit, particularly since they reject deposits from individuals with balances of less than N100,000. Soludo et al. (2007, p.12) argue that the weaknesses of many of these ailing banks are revealed by their poor corporate governance, high incidence of non-performing loans, capital deficiencies, overdrawn positions with the CBN, and weak management.

In March 2004, all banks were rated by CBN and sixty-two (62) banks were classified as satisfactory/sound, fourteen (14) banks were classified to be marginal, eleven (11) banks were classified as unsound, while two (2) of the banks failed to render any returns during that financial period. The major problems of the banks, especially those banks classified to be unsound, were identified to include unprofitable operations, poor assets quality, and persistent liquidity (Soludo, 2004; Soludo et al. 2007, p.13; Balogun, 2007). In summary, the main problems of many banks in Nigeria are:

- Neglect of small and medium-class savers, and over-dependency on public sector deposits.

- Non-publication or late annual accounts that obviate the impact of market discipline in ensuring banking soundness.

- Huge non-performing insider related credits due to gross insider abuses.

- Weak corporate governance, which is confirmed by inaccurate reporting and non-compliance with regulatory requirements, high turnover in the management staff and the board, falling ethics and de-marketing of other banks in the industry.

- Insolvency, as shown by shareholders' funds that had been completely eroded by operating losses and negative capital adequacy ratios.

Soludo et al. (2007) established that one of the main concerns in the banking system in Nigeria is the high reliance on government deposits, in which three tiers of government and some government parastatals accounting for over twenty per cent (20%) of total deposit liabilities of deposit money banks. However, the distribution of these deposits is not uniform among banks; some banks have reliance ratios in excess of 50%. The effects of these are; it renders such bank's operations to be highly vulnerable to swings in government revenue, and the resource base of such banks is weak and volatile, arising from the uncertainties of the international oil market. It is in this context that the CBN believes that effective management of risk can uphold stability in the financial institutions, especially the banking sector by protecting the institutions against liquidity, market, legal, credit and operational risks (Soludo, 2004; Soludo et al. 2007, p.126). The protection can be achieved primarily by maintaining an appropriate level of risk (or economic) capital by financial institutions.

1.2.3 Global Financial Crisis.

There have been many studies of financial crises (Friedman and Schwartz, 1963; Chandler, 1970; Manias, 1978; Kindleberger and Aliber, 1978; Mishkin, 1978; and Bernanke, 1983). For this study, the analysis begins with global events in the 1980s. According to Kindleberger and Aliber (2011, p.1), the most significant financial crisis began in the early 1980s when Mexico, Brazil and eleven other developing countries defaulted on their $800 billion of US dollar-denominated loans. According to United Nations (UN), the term developing countries refers to those countries that have not achieved a significant degree of industrialization relative to their populations, and have, in most cases, a medium to low standard of living (Cohen, 2006). The second financial wave was reported in the early 1990s, which engulfed Japan and three of the Nordic countries – Sweden, Finland and Norway. The third financial crisis began in mid-1997 in which Thailand, Indonesia and Malaysia were initially involved and later extended to Russia, Argentina, Brazil and South Korea (Kindleberger and Aliber, 2011, p.1).

The collapse of the asset in price bubble in Japan led to the immense failure of many banks and other types of financial institutions which, in turn, led to slow-moving economic growth for more than a decade (Kindleberger and Aliber, 2011). By definition, a bubble involves a non-sustainable form of cash flows or price changes. In addition, the crumbling of the asset price bubble in Thailand prompted the contagion effect, which led to sharp declines in stock prices throughout the region. However, the exception to this pattern is the crumbling of the bubble of stock prices in the year 2000 in the United States that led to a fall in stock prices for many years, although the effect of the resulting recession in 2001 was low and brief (Kindleberger and Aliber, 2011). The fourth and the most recent financial crisis began in 2007. This was triggered by declines in the prices of real estate in the United States, Britain, Iceland, Ireland and Spain – and by declines in the prices of bonds of the Portuguese, Greek and Spanish governments. During this period, there were substantial changes in the foreign exchange values of national currencies.

Colander et al. (2009) reported that between 2007 – 2009, the world economy was affected by an unprecedented economic and financial crisis. In August 2007, the US was tipped into a recession by failed subprime market, which led to the fall of notable global financial organisations. The financial crises and bank failures ensued from the severe depreciation of national currencies in the foreign exchange market or from the implosion of the asset price bubbles.

The majority of bank failure in the 1980s and 1990s were universal and involved most of the banks and financial institutions in many countries. In some cases, the bank crisis triggered the foreign exchange crisis, and in others, the foreign exchange crisis led to the bank crises. These bank failures happened in four different waves: firstly, at the beginning of the 1980s, the second at the beginning of the 1990s, the third occurred in the second half of the 1990s and the fourth happened between 2007 and 2009 (Kaminsky, and Reinhart, 1999; Colander et al., 2009; Kindleberger and Aliber, 2011).

The Nigeria economy faltered in 2009, which led to the banking industry experiencing significant financial loss due to global events. The 2008/2009 financial crash in Nigeria originates from the effect of the ripple of the 2007/2008 world financial crisis. Abubakar (2014) and Egboro (2016) reported that the crisis was a result of critical failure of the financial sectors of the advanced economies, which spread rapidly to the real economy, as well as to the rest of the world. Egboro (2016) states that most countries, including those far from the origin of the crisis, were negatively affected, and had to cope with tight credit, fast falling trade, and capital volatility. As earlier mentioned above, this financial crisis was due to the collapse of the American subprime real estate bubble in 2007, which was later followed by the failure of Lehman Holdings incorporated in 2008. Lehman Holdings incorporated was the fourth largest investment bank in the United States of America. This financial crisis spilt over to the real economy and caused panic in the financial markets, causing a deflationary impact that endangered the total collapse of huge number of financial institutions worldwide. However, many of the national governments bailed out their respective financial institutions, especially the banks, to avoid further mayhem (Carmassi, Gros and Micossi, 2009; Abubakar, 2014; Egboro, 2016). Kuye, Ogundele and Otike-Obaro (2013) state that the US was the first country to bail out its financial sector in 2008, injecting $750 billion to rescue the financial illiquidity and stabilise the financial institutions. Financial bailout refers to a situation whereby the government or other individual offers money to a failing business to prevent the consequences of its downfall, in the form of bonds, cash or loans (King and Maier, 2009; Levitin, 2011).

It is against this background that the Nigerian stock market capitalisation fell by 70% in 2008/2009, and the Central Bank of Nigeria (CBN) had to rescue many troubled Nigerian banks from the financial loss by adopting the US-bailout prescription for Nigerian banking symptoms, which was similar to that of the US. In order to return confidence to investors and the stock markets, and ensure liquidity and stability in the banking system, the CBN effected changes in the management of eight Nigerian commercial banks and injected N620 billion (equivalent to US $4.13 billion) of liquidity into the banking industry (Sanusi, 2010; Egboro, 2016). In addition, the global financial crisis caused a drop in the value of stock markets worldwide. It also affected the housing market, which was characterised by persistent unemployment, foreclosures, and evictions. The crisis played a major role in key business failures, declines in consumer wealth estimated in trillions of U.S dollars, and a downturn in economic activity that led to the 2008-2012 global recession and contributed to the European sovereign-debt crisis (Summers, 2000; Erkens, Hung and Matos, 2012; Egboro, 2016).

Crotty (2009) argues that though the 2007 global financial crisis was initiated by problems in the US subprime mortgage market, its underlying source was the weak financial institutions and risk management practices of the financial regime, often known as the "New Financial Architecture" (NFA), that is, 'the integration of modern-day financial markets with the era's light government regulation' (Crotty, 2009; Egboro, 2016). In his analysis of the global economic crisis, Soludo (2009) identified various causes, such as the "crash of structured products and mortgage market", while mortgage market and consumer loan distress led to counter-party risks and rising illiquidity prompted banks to stop lending. According to Soludo (2009), the ripple effects of the 2007 global financial crisis on the Nigerian banking system can be specified the following terms:

- There was a downturn in capital market operations that was accompanied by divestment by foreign investors.

- The global financial crisis had a negative effect on the availability of foreign trade finances for Nigerian banks, and credit lines became unobtainable.

- There was a decline in capital inflows to the economy, which led to pressure on exchange rates and de-accumulation of foreign reserves.

- There was a collapse in the prices of commodities, especially crude oil, which is the strength of Nigeria's economy, thus leading to a reduction of revenue to the federal government.

- There was a manifestation of counter-party risks vis-à-vis external reserves.

Hitherto, the Nigerian financial industry, especially the banking sector, is faced with unsystematic risks such as foreign exchange and indeterminate interest rates due to changes in the political, social, and economic situation, and systematic risks such as corporate governance, information technology, and internal controls (Sanusi, 2010). As Ayodele (2012) has stated, since these financial crises, risk management as an area of interest has generated discussion among financial institutions, including those in the Nigerian banking industry. This has been due to the continuing uncertainty in the business of financial services. The banking industry has been the most affected sector by unpredictable financial instability; in fact, various financial activities in the banking sector has been exposed to many risks. In order to boost confidence amongst the banking industry's stakeholders, the institutions need to commit their resources to good and effective risk management practices and encourage a robust risk management system in their institutions.

As Skidelsky (2009, p.5) has contended: "*it is only by delving deeper into the sources of the mistakes that the finger can be pointed to the system of ideas which gave rise to them…at the root of the crisis was not failure of character* *or competence, but a failure of ideas and effective risk management practices*"

Therefore, the purpose of this research is to gain more knowledge on risk management practices through the examination of a number of critical factors that affect effective risk management and provide a sound basis for the application of identified principles in the commercial banking in Nigeria. The outcome of the study will contribute to the existing knowledge on how effective risk management practices can be improved.

1.3. The Purpose and Significance of the study

Risk management practices have diversified areas of coverage and are practised by a range of professionals and organisations. In banking institutions, risk management has gained importance and become the centre of debate after the global financial crisis. Adoption of effective risk management frameworks has increasingly been seen as a way of ensuring the success and stability of the banking sector. As earlier discussed in section 1.2.1, 1.2.2 and 1.2.2.1, the banking industry plays a major role in Nigeria's national development and the growth of the economy (Schumpeter, 1961; Shell, 1993; Oldfield and Santomero, 1995; Merton, 1995; Okoye and Okpala, 2001; Molyneux and Wilson, 2007; Achua, 2008; Sanusi, 2010). It is contended that the success and stability of the banks depend substantially upon effective risk management (Hellwig, 1991; Pastor, 1999; Okoye and Okpala, 2001).

The study focuses on theoretical, empirical academic journal articles, which offers the most detailed and scope of current developments in risk management. In order to aid the understanding of risk management, this research reviewed various publications on risk management practices, as well as critical success factors influencing effective risk management practices. Empirical analysis using multiple regression analysis was carried out to establish the factors contributing to effective risk management practices in Nigerian banks. The researcher adopted a mixed method approach, integrating both quantitative and qualitative methodologies to provide a better understanding of the research problem than using either method separately. This, also enables the researcher to gain a deeper understanding and corroboration of the subject in question, while offsetting the weaknesses inherent in using either approach. The qualitative data collection through interviews serves to underpin the research. Out of a total of twenty-two commercial banks in Nigeria, nineteen (19) Heads of risk management from nineteen (19) different banks were interviewed in English language, which is the official language in Nigeria. The results of the interview analysis were arguably representative of the entire population under consideration, and formed the basis for the quantitative data collection using questionnaires. There were no more than seven (7) staff risk management staff in some of the banks in Nigeria, with other banks having more than seven (7). Hence, in order to ensure consistency across the board for the quantitative data collection and gauge their responses, the researcher targeted five (5) risk management staff from each of the twenty-two (22) commercial banks in Nigeria. Thus, the researcher distributed five (5) copies of questionnaires to each of the twenty-two banks with the expectation of getting 110 respondents. However, five (5) targeted staff from 19 banks, and three (3) staff from one other bank returned the completed questionnaires, making a total of 20 banks (98 respondents). Detailed analysis of both the interview and questionnaires, and the justification for using a mixed methods approach are discussed fully in chapter four.

It is crucial that the Nigeria banking institutions develop effective risk management in order to deal with the major risks such as operational risk, credit risk, regulatory/legal risk, sovereign/country (political) risk and market risk. Thus, this study contributes to the growing body of literature that provides a comprehensive view of risk management practices of banks in Nigeria. The research also analyses the major types of risks, as well as the risk management challenges facing commercial banks in Nigeria. This can be useful for both the shareholders and other stakeholders of the banking industry who need to assess the different types of risks and challenges facing banks. In relation to a value-enhancing strategy, one of the main reasons why banks engaged in risk management activities was to ensure better performance and, by implication, enhancement of the value for its shareholders (Oldfield and Santomero, 1995; Cebenoyan and Strahan, 2004; Kirkpatrick, 2009).

In summary, the study contributes to existing knowledge by adopting a unique combination of different data collection and analysis procedures to conduct a detailed dedicated study on some significant attributes of risk management in Nigerian banks. More significantly, the current research not only adds to the available academic knowledge in the field of risk management in banking, but also offers important methodological and practical contributions to the vital area of risk management in commercial banking institutions.

1.3.1 Why Risk Management?

The significance of risk management practices cannot be under-emphasised as the practice of risk management minimises the negative impact on and reduces the financial losses to the organisation. The importance of risk management has become a sensitive issue in today's competitive economic world, particularly since it focuses on detecting, assessing and analysing risk to minimise the negative impact (Boehm, 1991; Fatemi and Glaum, 2000; Olamide, Uwalomwa and Ranti. 2015).

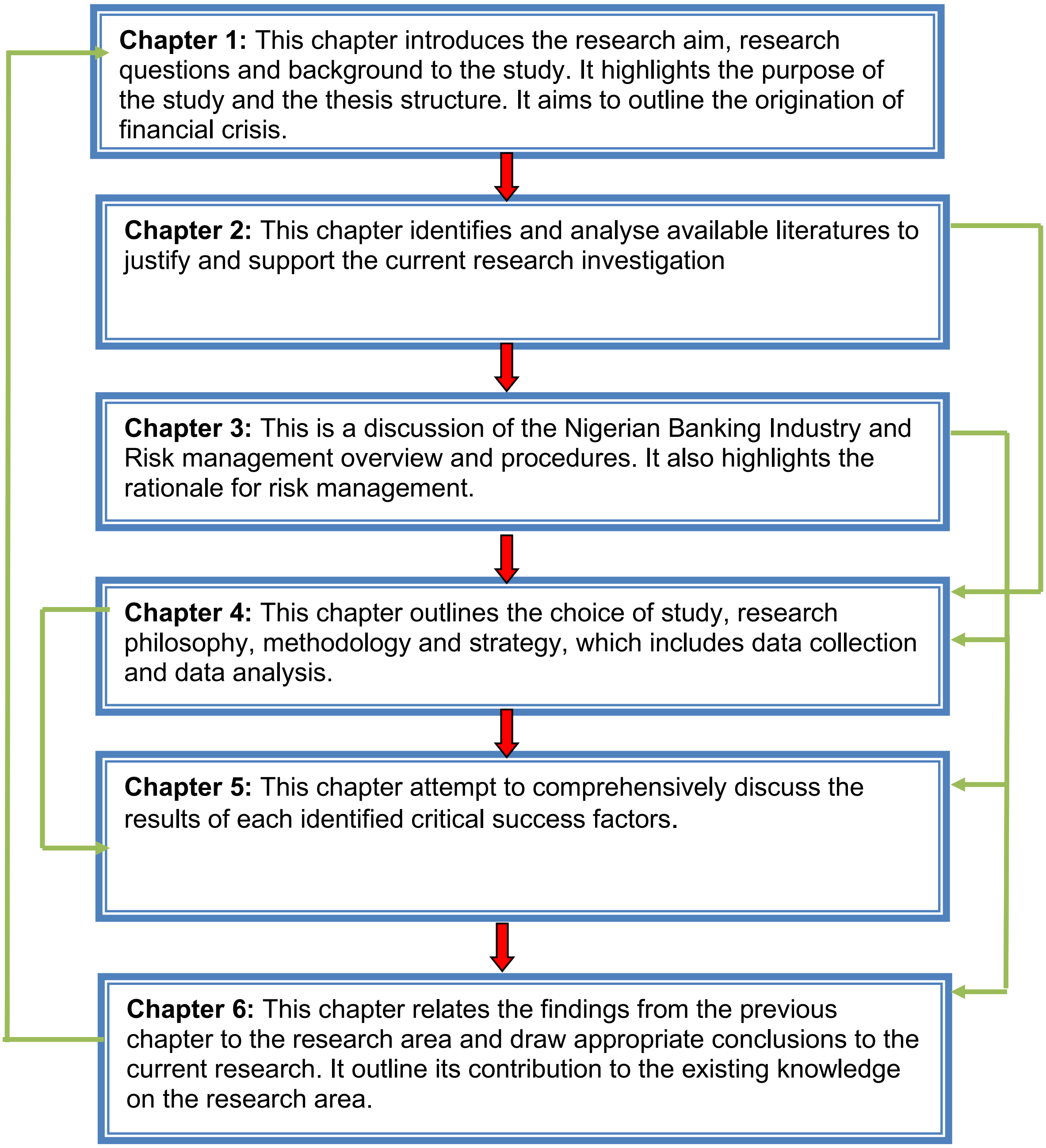
The uncertain economic periods of the past years have had a significant influence on how many organisations operate. Given the atmosphere of uncertainty, organisations now focus on how to manage their risk which, in turn, is the main cause of uncertainty in any business. Therefore, in order to avert negative impacts of risk, organisations increasingly focus on identifying and managing risks. Such a knowledge provides the organisation with various options on how to deal with any potential problems and act confidently on future business decisions (Ward and Chapman, 2003; Power, 2004). Based on a survey conducted by Ashby and Diacon (1994) as cited in Gerald Mars (2000), Olamide, Uwalomwa and Ranti (2015) reported that the practice of risk management in commerce stems mainly from the need to avoid tortuous, statutory or contractual liability that has the ability to damage the image of organisations. Clearly, without risk management, the organisation might find it difficult to define its objectives for the future. Without clearly defined objectives, an organisation can fail to anticipate risks that emanate from both internal and external sources. The internal risks are types of risks that occur within an organisation during the normal operations of the company; this includes information breaches or non-compliance; while external risk does not arise from direct control by management, that is, exchange rates, interest rates, political issues, among several others (Sarasvathy, Simon and Lave, 1998; Wood & Kellman, 2013; Shafique, Hussain and Taimoor Hassan, 2013).

In the banking industry, the danger of capital misallocation and unconsidered risk-taking has become the primary problem that has crippled many banks. Therefore, it is imperative to identify, measure, monitor, and control all inherent risk in banking day to day business activities (Olamide, Uwalomwa and Ranti, 2015).

1.4. Summary and the Study Plan of Thesis / Thesis Structure

The main objective of the study is to establish and evaluate those critical success factors that contribute to effective risk management practices in the commercial banking industry in Nigeria. In order to achieve this objective, the study mapped out plans that are demonstrated by the layout of this thesis. This thesis is separated into six (6) chapters, as outlined in figure 1.2 below. The overview of each chapter is presented extensively below:

Figure 1.1 - Overview of the research/Thesis Structure
Figure Source: Self designed



Chapter One: This chapter presents the background to the study, and provides a brief overview of Nigeria, the country under consideration. The study highlights the financial service and Nigerian banking situation, the role of banking and its contribution to the economic growth of Nigeria, and the functions of the Apex bank (Central Bank of Nigeria – CBN). It discusses the problems facing the banks in Nigeria and provides information on the cause of the global financial crisis. It describes the aim, objectives, research questions, purpose and the significance of the study, and the thesis structure.

Chapter Two: Chapter two of this thesis provides a detailed literature review on risk management and its effectiveness to banks. The chapter discusses critical success factors and provides an avenue to explore the potential gaps in the existing literature, which serves as the basis of this research. The conclusion of this chapter highlights various critical success factors identified from the literature and briefly discusses each identified factor.

Chapter Three: This chapter provides a detailed explanation of the Nigerian banking industry and risk management. It describes the definitions, functions and roles of banks, the evolution of commercial banking in Nigeria. Different themes were presented under risk management overview, such as different types of risks and risk in banking, risk management in banks and justification for risk management in banks, and risk management issues in commercial banks in Nigeria. A detailed discussion of risk management procedures and Basel accords and risk management practices in the commercial banking industry is also presented in this chapter.

Chapter Four: This chapter provides details of the research methodologies adopted to achieve the objectives of the research. It describes the research philosophy, highlighting both epistemological and ontological considerations, the research approach, research strategy, and research design. A brief description of the study population and selected sampling technique is discussed in this chapter. In addition, it also discussed data collection methods of both interview and questionnaire, and data analysis.

Chapter Five: This chapter presents the analysis, that is, the techniques used to achieve the research objectives. It highlights the qualitative data analysis of the interview conducted and its results, and the results of the factor analysis are also presented. A brief descriptive statistic of the result of the questionnaire is presented. This chapter examines those factors that are statistically significant and contribute to effective risk management using multiple regression analysis.

Chapter Six: The final chapter of this thesis presents a summary of findings and overall conclusions from the analysis conducted in the preceding chapter. In order to draw final findings and discussion, the key results from both qualitative and the quantitative methods are brought together in this chapter. Limitations of this study and different recommendations for future research are also discussed.

Given this layout of the thesis, the following chapter (chapter 2) will review the existing literature and academic commentary in risk management and critical success factors that contribute to effective risk management practices in the commercial banking industry.

Chapter Two: Literature Review on Drivers of Risk Management Practices

2.0. Introduction

As a way of aiding our understanding of risk management, Chapter one provided a detailed discussion of risk management and its procedures. To the extent that an initial review of the literature shows that there has been an increasing number of academic studies in this area, it is important to heed Saunders et al's (2012) advice that initial review and search helps to assist researchers in refining and generating their research ideas. It is on this bais that the literature review focuses on theoretical and academic empirical journal articles to scope the current developments in risk management practices.

The literature review follows a thematic approach whereby various themes that contribute to the current research are reviewed critically. The themes include risk management practices and critical success factors that contribute to effective risk management practices, among others.

2.1. Previous Research on Risk Management Practice

Adeusi et al. (2014) focused on the association of risk management practices and bank financial performance in Nigeria. They espoused that a bank's motivation for effective risk management is to avert underperformance. According to them, the financial crisis has not only impacted on big economies of the world, but also developing economies. As a result, risk management issues in the banking sector do not only have a significant impact on bank performance, but also the national economic growth and general business development. They documented that banking risks can emerge from credit, market and operations. They also identified four sequential steps to implementing a risk management system, namely, standard and reports, position limits and rules, investment strategies and guidelines, incentive contracts and compensation. Employing archival analysis of annual reports of ten (10) banks in Nigeria from 2006-2009, they found out that there was a significant relationship between risk management and bank performance. In addition, risk management in terms of fund management, reduction in the cost of the bad loan and debt-equity ratios results in better bank performance. From their study, it was found that effective fund management, loan system and debt-equity ratios are success factors that can facilitate improved banking performance.

The paper concluded that it is of crucial importance that banks practice prudent risk management and safeguard the assets of the banks and protect the investors' interests. However, the study did not identify those critical success factors for effective risk management, especially in the commercial banks, an area this study attempts to explore, particularly for the Nigerian banking system.

According to Kolapo et al. (2012), banks are relevant to economic development; therefore, the efficient and effective performance of the banking industry over time is an index of financial stability in any nation. In their view, the banking industry is continually faced with credit risk, which is the possibility of loss due to credit events. Hence, banks need to put effective credit risk management in place for performance optimisation. Based on this background, they carried out an empirical investigation into the quantitative impact of credit risk on the performance of commercial banks in Nigeria over a period of eleven years (2000-2010). Their aim was to buttress the importance of addressing credit risks affecting a bank's profitability. Reviewing existing literature, they identified five (5) credit risk management strategies; credit derivatives, credit securitisation, compliance to Basel accord, sound internal lending policy and the credit bureau. Using archival analysis of annual reports and accounts of five major banks in Nigeria, they found out that the effect of credit risk on bank performance measured by return on assets is cross-sectional invariant, while loan and advances ratio co-efficient has the most significant positive effect on the profitability of the banks.

Their paper considered the impact of credit risk on the performance of Nigeria banks but failed to consider those factors for effective credit risk management.

However, their recommendations focus on effective risk management practices. According to their findings, they recommend that in order for the banks in Nigeria to maintain their credit risk effectively, both credit analysis and loan administration need to be improved. Their study indicated that factors that can facilitate effective credit analysis can also mitigate the adverse effects of credit risk.

Abu Hussain and Al-Ajmi (2012) report on empirical evidence of risk management practices of banks operating in Bahrain. They defined risk management as a continuous process that depends directly on changes in the internal and external environment of the bank by identifying and controlling potential risk areas. Following a review of extant literature in risk management of financial institutions, they found out that credit risk, foreign exchange risk and operational risk are common risks in the banking sector. They further identified six (6) aspect of risk management; understanding of risk and risk management, risk identification, risk analysis, risk monitoring, risk management practice and credit risk management. They found out that the effectiveness of the risk management practices adopted is mostly dependent on the clear understanding of risk and risk management, efficient risk identification, risk assessment analysis, and credit risk analysis. Furthermore, Abu Hussain and Al-Ajmi (2012) highlighted credit, liquidity and operational risk, as the most important risks facing both conventional and Islamic banks in Bahrain. Though, they found out that Islamic banks are found to be significantly different from their conventional counterparts in understanding risk and risk management. The levels of risks faced by Islamic banks are found to be significantly higher than those faced by conventional banks. The liquidity, operational, residual, and settlement risks are found to be higher in Islamic banks than in conventional banks. Based on their study, the extent to which managers understand risk and risk management, efficient risk identification, risk assessment analysis, risk monitoring and credit risk analysis are an indication to improving risk management practices in banking industry particularly for developing countries. Their recommendation suggested further understanding of risk management practices, especially those factors that drive effective risk management practices, which forms the basis of this present research.

A comparative study of risk management of national and foreign banks in the UAE by Al- Tamimi and Al-Mazrooei (2007) show that the three most critical risk facing the banks in descending order are foreign exchange, credit and operation risk. They further identified audits and bank's risk manager inspections and analysis of financial statement as methods of risk identification. They concluded that the foreign banks were better at dealing with risk exposure than the locally incorporated banks.

The authors attempted to cover most of the aspects of risk management, but they did not address Basel II and risk management, which this present study will explore in chapter 3. Besides, the authors recommended further study of risk management practices, particularly the impact of specific factors. This is an area this present study attempts to explore, in particular for commercial banks in Nigeria banking industry.

Thomas (2012) investigated the consideration of risk analysis in appraising investments and examined the relationship of some risk analytical methods used by management teams on firms' investment performance. The study identified seven (7) risk management techniques: certainty equivalent method, risk adjustment discount rate, simulation, sensitivity analysis, expected value, pay-off matrix, and decision tree method. They employed a survey approach using questionnaires to collect data from the staff of five (5) banks in Nigeria. It was observed from the findings that Nigerian banks made use of risk analytical techniques in their investment appraisal, while some risk analytical techniques were popularly in use than others. Expected value method was most predominant, followed by the pay-off matrix. The study concluded that effective evaluation of risk plays a major role in enhancing investment performance.

The research recommended that workers at management level should be educated on the importance of risk evaluation techniques in order to maximise returns on their shareholder's investment. In addition, the use of various risk analytical methods depending upon the conditions should be more dynamic to guarantee high investment returns.

Owojori, Akintoye and Adidu (2011) identified various risks that arise in the course of business which bankers should be able to control such as, credit risk, liquidity risk, reputation risk, legal risk, operational risk, customer satisfaction risk, leadership risk and information technology risk. They, however, identified regulatory risk, industry risk, government policies risk, sovereign risk and market risk as exogenous to the banking system, which tends to pose the most significant control problem to banking performance. The authors found out that Nigerian bankers tend to overlook some risks and even ignore regulatory guidelines that are meant to mitigate such risks, particularly credit default risk. As a result, many banks are in distress. They recommended that the management team should be able to identify risk, map out strategies and have the courage to implement such strategies in order to improve banking performance in Nigeria.

Adeleye, Annansingh and Nunes' (2004) study focuses on the risk management practices adopted by Commercial Banks in Nigeria, practices that are related to the outsourcing of information systems (IS). Their research resulted from the lack of studies that address these problems in developing countries in general and Nigeria in particular. They showed that despite the globally increasing trend of IS outsourcing in the banking sector, Nigerian commercial banks were lacking in both strategic and operational risk management practices. The research drew on broad literature, case study review and survey of banks in Nigeria in order to carry out an empirical investigation on risk management in information system outsourcing. Their research adopted questionnaire method of data collection and mixed-methods to draw comprehensive inferences. The outcome of their study was that all the banks admitted that they had no risk management procedures or guidelines for IS outsourcing in place and the Nigerian regulatory authorities had not articulated any practical procedural guidelines to be adopted nationally by commercial banks.

Athough the study discussed areas of risk management practices extensively, focusing on risk management practices in Information systems (IS) outsourcing in commercial banks in Nigeria, it failed to consider those factors contributing to effective risk management practices in the same commercial banks. This is an area this present study will consider.

Santomero's (1997) study was on the philosophy and practice of financial risk management in the commercial banking sector. It covered an analysis of several North American super-regionals and quasi–money-centre institutions as well as several firms outside the United States of America. The research reported about the state of risk management techniques in the banking sector and the standard of practice and evaluated how and why it was conducted in the particular chosen way. According to the study, commercial banks were in the risk business. In the process of providing financial services, the study assumed various kinds of financial risk, and highlighted why some scholars such as Stulz (1984), Smith, Smithson and Wilford (1990), Froot, Scharfstein and Stein (1993), and Santomero (1995) emphasised the need for active risk management. These include managerial self-interest, the nonlinearity of the tax structure, the costs of financial distress, and the existence of capital market imperfections. The study further underlined three (3) categories of risks facing all financial institutions from a management perspective. These are:

1. Risks that can be avoided or eliminated by simple business practices;
2. Risks that can be transferred to other participants; and
3. Risks that must be actively managed at the firm level.

To mitigate the risks, the paper pointed out that the management of banking firm rely on a sequence of steps to implement a risk management system. These include:

1. Standards and reports,
2. Position limits or rules,
3. Investment guidelines or strategies and
4. Incentive contracts and compensation.

Specifically to the commercial banking sector as a whole, they identified six generic types of risk: systematic or market risk, credit risk, counterparty risk, liquidity risk, operational risk, and legal risk. Four of the above risks which make up most, if not all, of their risk exposure, are credit, interest rate, foreign exchange and liquidity risk. While the authors recognised counterparty and legal risks, the study viewed them as less central to their concerns. They found out that Interest rate risk is measured, usually weekly, using on± and off±balance-sheet exposure, and Foreign exchange; hence, stimulation technique will be most appropriate. They recommended additional analytical work to be carried out in order to identify improvement measures in risk management techniques, which includes credit, interest rate, foreign exchange and liquidity risks.

The study of Warenski (2012) examined the effect of uncertainties in risk management. Using a case study approach, the researcher identified various credit risk models for internal credit monitoring, credit risk management that can enable bankers in effective risk management. These models follow top-down or bottom-up risk management. He recommended a refinement of current practices by heightened awareness of conditions of making decisions under uncertainty to improve risk management outcomes.

Aloini et al. (2007) in their paper on risk management in enterprise resource planning (ERP) project introduction, collected and analysed a key number of articles on the implementation of ERP. Their study focused on the importance of ERP risk management through ERP life cycle and this resulted in guidelines for management. Their research compared the different approaches in the literature from a risk management perspective to highlight the key risk factors and their effect on project success. In their study, they classified the literature in order to address and analyse each key factor and their relevance during the stages of the ERP project life cycle. The key factors that were highlighted were as follows: Low top management involvement; low-key user involvement; poor project team skills; ineffective strategic thinking and planning strategic; bad managerial conduction; inadequate training and instruction; and inadequate ERP selection. Conclusively, the authors argued that ERP implementation is not just a “computer project”, but a strategy and EPR systems are integrated applications with an impact on the entire organisation.

For their part, Ayodele and Alabi (2014) examined how Nigerian banks managed their risk, using First Bank of Nigeria PLC (FBN), the oldest and biggest bank among the commercial banks in Nigeria, as a case study. Their analysis was based on primary data collected through questionnaires distributed to fifty-five (55) FBN workers. The results of their findings revealed that Nigerian banking operations are affected more by operational risk, market risk and credit risk; primarily because forgery and fraud are so prominent within the banking system in Nigeria. Fraud and forgeries play a negative role in banking daily operations. However, they submitted that the risk management procedures put in place by the banks had assisted in reducing various risks facing banks and recommended that the Nigerian government needs to reinforce the legal framework, which will enforce borrowers to pay back their loans upon loan maturity. They also advised that the Nigerian financial regulator needs to embrace risk management methods that are in compliance with international standards, while focusing on operational and financial risks confronted by banks in order to prevent any risks associated with banking operations.

Olamide, Uwalomwa and Ranti (2015) examined the influence of risk management on the bank’s financial performance. The study made use of secondary data extracted from the corporate annual reports of fourteen (14) banks among the banks listed on the floor of the Nigerian Stock Exchange (NSE) for the period of six (6) years (2006 – 2012).

The study adopted the ordinary least squares regression to test their formulated hypothesis, and their results revealed that risk management does not usually translate to the banks’ positive financial performance. Though effective risk management in financial institutions lessened the existence of systemic and financial failure, it did not guarantee an increase in the returns on equity. Therefore, the authors concluded that the increased drive for risk management had limitations on the earning capacity of Nigerian banks. However, the research did not cover those critical success factors for effective risk management practices, which is an area this present study will also explore.

Dugguh and Diggi (2015) review risk management strategies adopted by financial service institutions in Nigeria with focus on commercial banks in order to proffer solutions for more efficient, effective and profitable operations. Relevant literature on risk management, strategies and reduction were reviewed to investigate risk management strategies developed by various risk management experts and specialists. Their reviews showed that risk is one of the most significant challenges facing commercial banks in Nigeria, and needed to be given top priority. The paper also revealed that Nigerian commercial banks had not been properly implementing their risk management strategies, which had led to various financial difficulties experienced by the banking industry. Hence, Dugguh and Diggi (2015) recommended that bank managers seek the support of top management and consider risk management as an integral part of corporate strategy. They advised that risk factors should be assessed from time to time and an appropriate strategy should be embarked on to mitigate the identified risk for the efficient, effective, and profitable performance of commercial banks in Nigeria. Also, there is a need for banks to consult risk management specialist in order to assess the type of risk and take timely actions to avoid future losses to improve banks' profitability.

The study conducted by Fadun (2013) uses primary sources of information to highlight the importance of effective risk management to prevent risk management failure in business enterprises in Nigeria. The study explored the benefits and importance of effective risk management to business enterprises and highlighted the reason why enterprises manage risks. On the basis of the result generated from the literature, the study concluded that there was sufficient data to establish the rationale, importance and benefits of risk management and the need to avoid risk management failure in business enterprises in Nigeria. Moreover, risk management was an essential part of the decision-making process, while managing risk could effectively improve business performance and thereby reduce business failure in Nigeria. Also, the author established that there were both external and internal factors that influenced risk management practices in business enterprises, although the study did not go further into examining them. Such factors need to be given more considerable attention by way of evaluating their influence on risk management activity within organisations. This is an area that this present study attemps to explore, particularly for commercial banks in Nigeria.

All these studies highlight the imprtantance of investigating risk management across foreign, local, incorporated, commercial and Islamic banking and the significance of effective risk management in banking performance and business enterprises. Through systematic literature reviews, case studies or survey approaches, the studies identified the various types of risks, risk management techniques and proffered recommendations to improve risk management practices. Therefore, to improve risk management practices, identifying and considering the salient factors is critical for successful implementation, particularly in commercial banking. The identified areas that require further investigation will be explored by this current study. The contextual investigation not only identifies these factors for improved banking performances in terms of risk management practices, but also examines in detail the major risks and risk management challenges facing commercial banks in Nigeria.

2.2 Critical Success Factors (CSFs)

The concept of Critical Success Factors (CSF) was first defined by Rockart (1979, p. 84) and reported by Chen (1999), as the limited number of variables or elements required for the successful competitive performance for an organisation to achieve its objectives. Chen (1999) argued that CSF were those key factors which required on-going management attention if the organisation intended to remain competitive. It was also an element needed by a company to achieve its mission, strategies and organisational objectives (Freund, 1988).

Leidecker and Bruno (1984) emphasised that identifying these elements can help top management to ascertain that there is relevant information for the organisation to perform at the highest possible level of excellence, and also achieve its planned overall objectives. In addition, Bullen and Rockart (1981) highlighted that top management should seriously consider these Critical Success Factors also known as Key Result Areas (KRA) as an essential tool in assessing data needs to ensure that an organisation achieves both effective and efficient performance.

Critical Success Factors (CSF's) are crucial in guaranteeing the success of the business. The phrase was at first used in the space of data analysis as well as business analysis. It has been utilised to signify key factors that businesses should focus on in order to flourish (Alazmi and Zairi, 2003). Before looking at CSFs, it is crucial to know the factors that are relevant to the business. These factors differ from business to business and on a case-by-case basis. The fundamental point of using CSFs efficaciously is to guarantee that a factor of a specific business activity, which is essential to its future income, and return of investments will always apply. There are different types of CSFs; namely, industry critical success factors; strategy critical success factors; environmental critical success factors; and temporal critical success factors.

According to Gadenne (1998), Industry Critical Success Factors pertain to some CSF's that ensure that all companies operating within the same industry. Various industries will have unequal, industry-specific critical factors. The industry's characteristics specify its own CSF's. Various industries have contrasting CSF's, for instance, research into the CSF's for the business processing outsourcing, retail, manufacturing, healthcare and business services sectors. Different sectors have their CSF's that are industry orientated, entrepreneurial management styles and flexible structures. In actuality, each business has its own unparalleled goals, so that while there may be several industry standards, it may not be true that all firms in one business will have indistinguishable CSF's. Several trade associations provide benchmarking crosswise feasible common CSF’s (Gadenne, 1998).

Strategy Critical Factors denote quality of place in the marketplace or the strategy for increasing market share yields to CSF’s (Bullen and Rockart, 1981). Various strategies and viewpoints have different CSF’s. Not all of the unwavering in an industry will have identical CSFs in a specific industry. A firm’s actual position in the industry, where it is proportional to other rivals in the industry, and also the leader in the market, its scheme, and its rootage and capabilities will specify its CSF’s. The belief of an organisation, its point of reference in the market will all blow the CSF’s that are appropriate at a particular point in time (Bullen and Rockart, 1981; Chin, Chan and Lam, 2008).

Environmental critical success factors are an economical, restrictive, governmental, and demographic occurrence that creates CSFs for business (Osei-kyei and Chan, 2015). While temporal factors are those that tie into short-term postulates and frequent crises, these CSF’s may be essential but generally short-lived. Temporal factors are short-lived or one-off critical success factors consequent upon a special event involving their inclusion (Bullen and Rockart, 1981).

Rockart (1979) argued that critical success factors are the key areas in which results can be deemed satisfactory, and ensure successful competitive performance for the organisation. Studies have shown that there are various methods of investigating and identifying critical success factors. While some researchers adopt quantitative approaches others espouse qualitative ones. For instance, Umble and Umble (2001) and Usman and Shah (2013) used literature reviews, while Holland and Light (1999) adopted case studies and Rockart and Van Bullen (1986) used surveys and interviews, to name a few. Though the case study and survey approaches are the most commonly employed to identify critical success factors, this does not imply that they are the most effective approaches. This research starts with the identification of CSFs for improving risk management practices using a combination of literature review and a survey approach. The CSFs from extant literature are documented in the next section.

2.3 Previous Research on Critical Success Factors (CSFs)

In a study of Critical Success Factors in the banking process, that is re-engineering in order to meet the requirements of e-banking services in Iran, Salimifard et al. (2010) identified nine (9) key factors. These include egalitarian culture, use of information technology, customer involvement, change management, top management commitment, less bureaucratic structure (flatter structure), project management, adequate financial resources and quality management system. From their study, they found that top management commitment and adequate financial resources were highly important factors for the implementation of the banking process re-engineering (BPR) projects in Iran. They further recommend that these key factors be effectively considered in a bid to migrate from the traditional banking process to BPR.

In a study of Critical Success Factors in IT service management in Australia, Tan et al. (2009) identified six (6) Key CSFs namely, senior management support, project champion, relationship with vendors, change in corporate culture, project governance and execution, and realisation of benefits. They adopted a case study strategy for studying Queensland Health, a large Australian government agency. They advocated that commitment of senior management was crucial to the success of projects, while championing projects and the recognition of the appropriate change in management strategy would move the culture from technology to a service-oriented focus. They concluded that all these factors would facilitate implementation success in IT service management.

In a study of Critical Success Factors of Business Process Management (BPM), Trkman (2010) used a combination of three underlying theories to identify critical success factors using a case study strategy. This strategy was used to show the connection between the theories in the identification of case-specific critical success factors for the banking sector. In relation to contingency theory, strategic alignment, level of investment, performance measurement and level of employees' specialisation were identified. The critical success factors associated with dynamic capability theory identified organisational changes, the appointment of the process owners, implementation of proposed changes, and use of continuous improvement systems. For the task-technology fit theory, standardisation of processes, informatisation, automation, training and empowerment of employees were identified as critical success factors. The researcher concluded that the critical success factors should not be considered in successive order but simultaneously as a set of interrelated pointers.

In a study of critical success factors for commercial bank risk management in Slovakia, Pilkovà (2010) classified the critical success factors into three groups of factors: first, bank operation under a relevant risk management system. This involves adequate evaluation of institutional risks, holding adequate capital and the implementation of relevant risk management processes and adequate organisational structure. The second critical success factor is the involvement of Bank governing bodies and readiness to widely support changes in bank management. This comprises the governing body's involvement in the process of change to advance to new situations using effective methods and approaches. The third critical success factor is the Chief Risk Officer (CRO) leadership role and key risk management activities. This constitutes the role of the CRO, its competence characteristics, clear vision strategy for effective risk management activities. The study concluded that it is crucial to identify the right key success factors because they can serve as a basis for further discussion on how to build efficient and effective operating commercial bank risk management system, which could serve for both prevention of crises and management if a crisis occurs.

Usman and Shah (2013) sought to understand the factors that can critically strengthen fraud prevention systems in electronic banking, which is an aspect of operational risks. They identified four groups of factors: strategic, managerial, operational and technical. They identified eight (8) drivers associated with strategic factors, six (6) drivers associated with managerial factors, six (6) drivers associated with operational factors and seven (7) drivers associated with technical factors. They found out that, apart from technical factors being most critical, strategic and managerial factors were also important.

Employing factor analysis technique to analyse the collaborative study of the Central Bank of Nigeria (CBN) and Nigeria Deposit Insurance Corporation (NDIC), Okpara (2009) investigated the significant factors influencing the performance of the banking system in Nigeria. From the literature review, he found out that bad loans, fraudulent practices, under capitalisation, changes in government policies, bad management, lack of adequate supervision and undue reliance on forex were key factors affecting banking performance. The author concluded that undue interference from board members, political crises, undercapitalization and fraudulent practices were the most critical factors inhibiting the efficient performance of the Nigerian financial institutions. These are potential risk exposure areas that can be associated with credit, operational risk and need to be considerably mitigated to improve performances.

Grabowski and Roberts (1998) investigated the problem of risk mitigation in a virtual organisation. Their research draws on a variety of research in which risk propensity in virtual organisations was discussed. The study identified four critical success factors which may enhance reliability and suggested a process designed to support the high level of performance in high and conventional reliable organisations. The factors identified were organisational structuring and design; communication; organisational culture; and trust.

The aforementioned studies identified various critical success factors relevant to effective banking performances and effective risk management in the banking industry and virtual organisations. The critical success factors identified cut across key areas in banking where there can be potential risks exposure: Banking governance bodies, IT service management, Banking process re-engineering, Business process management, risk management, and E-banking. From the review of these studies from both developed and developing country perspectives, it is found that critical success factors are fundamental to achieving implementation success in management practices in the banking sector. However, it is also clear that studies on critical success factor are context-dependent. In total, thirty-five (35) critical success factors were identified from different kinds of literature and are summarised in the table below:

Table 2.1: Summary of critical success factors identified from different literature

	CSFs	Publication
1	Egalitarian culture	Salimifard et al. (2010); Grabowski and Roberts (1998)
2	Use of information technology	Salimifard et al. (2010); Usman, A. K., & Shah, M. H. (2013).
3	Customer involvement	Salimifard et al. (2010); Usman, A. K., & Shah, M. H. (2013).
4	Change management	Salimifard et al (2010); Usman, A. K., & Shah, M. H. (2013).
5	Top management commitment	Salimifard et al. (2010); Usman, A. K., & Shah, M. H. (2013).
6	Less bureaucratic structure	Salimifard et al (2010)
7	Project management	Salimifardet al. (2010); Usman, A. K., & Shah, M. H. (2013).
8	Adequate financial resources	Salimifard et al. (2010): Usman, A. K. & Shah, M. H. (2013).

9	Quality management system	Salimifard et al (2010)
10	Senior management support	Tan et al (2009); Usman, A. K., & Shah, M. H. (2013).
11	Project champion	Tan et al (2009)
12	Relationship with vendors	Tan et al. (2009)
13	Change in corporate culture	Tan et al. (2009); Usman, A. K., & Shah, M. H. (2013).
14	Project governance and execution	Tan et al. (2009)
15	Realisation of benefits	Tan et al. (2009)
16	Strategic alignment	Trkman (2010)
17	Level of investment	Trkman (2010)
18	Performance measurement	Trkman (2010)
19	Level of employee's specialisation	Trkman (2010); Usman, A. K., & Shah, M. H. (2013).
20	Organisational changes/structure	Trkman (2010); Usman, A. K., & Shah, M. H. (2013); Grabowski and Roberts (1998)
21	Appointment of the process owners	Trkman (2010)
22	Implementation of proposed changes	Trkman (2010)
23	Use of continuous improvement systems	Trkman (2010)
24	Standardisation of processes	Trkman (2010)
25	Informatization	Trkman (2010)
26	Automation	Trkman (2010)
27	Training and Development of employees	Trkman (2010)
28	Bank operation under a relevant risk management system	Pilkova (2010)
29	Involvement of Bank governing bodies and readiness to widely support changes in the bank management	Pilkova (2010)
30	Chief Risk Officer (CRO) leadership role and the key risk management activities	Pilkova (2010); Usman, A. K., & Shah, M. H. (2013).
31	Strategic involving policy procedures and communication	Usman, A. K., & Shah, M. H. (2013); Grabowski and Roberts (1998)
32	Managerial involving management support	Usman, A. K., & Shah, M. H. (2013).
33	Operational involving internal audits and control	Usman, A. K., & Shah, M. H. (2013).
34	Technical factors involving system security and performance	Usman, A. K., & Shah, M. H. (2013).
35	Trust	Grabowski and Roberts (1998)

Table Source: Self designed

2.3.1 Brief Discussion on Each Identified Critical Success Factors (CSFs)

1. **Egalitarian Culture**

The impact of the financial crisis of 2008 has led to the entity holders demanding greater oversight of key risks facing organisations to ensure preservation and enhancement of stakeholder value (Walker, Shenkir and Barton, 2002). Apart from the stakeholder's demands, various regulatory framework reforms, such as the Sarbanes-Oxley Act of 2002, are significantly expanding public policies regarding risk management and corporate governance. Such growing expectations have resulted in a new paradigm, that is, enterprise risk management (ERM) designed to enhance stakeholder's ability to oversee and proactively manage uncertainties facing an organisation. Specifically, ERM offers a vital source of competitiveness for organisations that can show a strong capability and discipline regarding ERM (Stroh, 2005). However, organisational culture plays an integral role in ERM, particularly in the implementation of key initiatives, the speed at which organisations react to market changes, and whether an organisation can optimally navigate necessary changes in the business environment (Kimbrough and Componation, 2009). Specifically, organisational culture is a crucial factor in the successful implementation of business process re-engineering (Salimifard et al., 2010). However, coordination, cooperation, and empowerment of the workforce are the major characteristics of an innovative organisational environment. While egalitarian culture is supportive of these attributes, it should be developed in an organisation for successful implementation of organisational change (Ahadi, 2004).

2. **Use of Information Technology**

The advent of the Internet and advances in information technology offer many Web-based applications as a new way for organisations to retain customers and offer new products and services (Tan and Teo, 2000). Such innovations offer an organisation the opportunity to process its information to fulfil its mission efficiently. However, effective risk management is a vital part of a successful information system (Conrow, 2005). Specifically, the major goal of the risk management process of organisations is to protect the organisations and enable them to perform their mission (Tohidi, 2011). Thus, organisations should not overlook risk management in their operations. Risk management should be considered as a major operational management component of the organisation. While evidence abounds of many failures of information technology over the years, most failure could be attributed to unrealistic expectations and inability to recognise the limit of information technology (Alhawari et al., 2012). However, the identification of risk associated with the use of information technology can be challenging for organisations, as there are multiple ways it can be described and categorised. Specifically, risks vary in severity, nature, and consequences, and it is crucial that identified high-level risks are identified, understood and managed (Baccarini, Salm and Love, 2004).

3. Customer Involvement

There are increases in innovative ways of doing business in an informative environment, such as banking. Why such innovative ways include electronic banking, an innovative organisation requires customer involvement during baking process re-engineering, as organisations require customer information gathering to drive such projects (Ahadi, 2004). However, empirical evidence shows the perceived risk influences customer involvement (Dong-Fei, 2015). Customer involvement is increasingly becoming an integral factor in the risk management chain in banks. Thus, customer involvement in banks' risk assessment and decision analysis should form part of their decision-making process. It will aid in identifying key factors of the risk and the potential risk, as well as determining the risk consequences and risk level (Ergu et al., 2014).

4. Change Management

Change management is an integral part of a successful business process re-engineering. While such re-engineering is part of change management, there is specific risk involved even with a systematic approach to change management in an organisation. The risk assessment during change management is premised on the assumption that organisational risk has an inverse relationship with change readiness (McKay, Kuntz and Näswall, 2013). Thus, the increased readiness of the organisation to change lower the risk of failure of the change initiative. However, such business process re-engineering may fail due to resistance by key persons whose activities would be affected. Specifically, the manager involved in such a process may lose power due to flattening of management layers, thus disrupting the status quo and shifting responsibility (Ahadi, 2004). Similarly, resistance may be due to the fear of losing jobs as such re-engineering eliminates unnecessary tasks and jobs, as well as team-oriented approaches.

5. Top Management Commitment

Top management is saddled with the daily running of all organisational activities (Singh, and Kant, 2008). Thus, top management should provide a clear vision to assist the team in handling the business process re-engineering to be directed toward the desired results. Management commitment is crucial for all activities and processes within an organisation. Specifically, top management commitment is a vital support for new product development and other entrepreneurial activities within an organisation (Cereola, Wier and Norman, 2012). Management commitment hinges on the collective nature of management influence on the organisational risk-taking behaviour (Rachdi and Ameur, 2011). It needs to be emphasised that management is crucial to the norms and values attached to risk in an organisation. In particular, management with strong commitment will often improve high risk-taking behaviour in areas such as the taking up of huge debts to enhance the returns from opportunity maximisation. Such a commitment is premised on the direct reflection of the propensity for risk-based decision-making. Similarly, top management commitment concretises the willingness of top management to exploit any risk for organisational benefits. Furthermore, the supportive risk nature of the top management offers an organisation-wide risk-taking support (Knight, 2000). Furthermore, top management commitments shape the perception of risk and influence this perception, thereby deeply impacting on organisational behaviour.

6. Bureaucratic Structure

Evidence abounds about many financial organisations that have run into financial problems due to failures in internal controls and monitoring systems, rather than lack of risk management (Wallgren and Lindé, 2012). Thus, the organisational structure impacts organisational risk management. Specifically, organisational structure impacts organisational actions in two major ways. Apart from offering a foundation for operating procedures, it determines the extent of people's involvement at various organisational levels in the decision-making process (Jacobides, 2007). However, individual involvement and the degree of their involvement can be categorised into two structures: horizontal and vertical structure. While the traditional vertical structure allows an organisation to be compartmentalised into different departments, functions and tasks, horizontal organisations refers to taking decisions closest to them, although the structure is flatter than the vertical structure despite the hierarchical level. Given this, the organisational structure should be flexible to enable bank process re-engineering to encourage creativity and innovation in the organisation. Thus, the less bureaucratic and participatory structure there is, the greater the possibility of avoiding failure of business process re-engineering implementation (Ahmad, Francis and Zairi, 2007).

7. Project Management

Project management is the process of identifying, analysing and responding to any risk that occurs over the project's life cycle, thus assisting the project to remain on track and accomplish its goal. While risk management is not only reactive, it should also be part of the planning process to ascetain the risk that might occur in the project and how to control the risk if it occurs. It is noteworthy that risk could potentially affect the timeline, budget or performance of a project. Although risks are potentialities, they become realities in risk management, and they are classified as issues that must be addressed. Thus, risk management entails the identification, analysis, prioritisation and plan for risks before they evolve into issues. It needs to be emphasised that project management is vital for the planning and management of the bank process re-engineering to be implemented correctly (Al-Mashari and Zairi, 2000).

8. Financial Resources

The need for an enhanced risk management system in a financial institution is highlighted by the financial crises. This points to the way financial resources are adequately managed in the financial system. It is worth recalling that risk management focuses on rational decision-making under uncertainty, and financial returns probability distribution, and that asset pricing and market agent preferences are at the core of theoretical foundations of rational decision-making in an uncertain environment (Mertzanis, 2014). It needs to be emphasised that financial resources are an integral part of banking, and the lack or impairment of them could trigger risk and hinder the risk management process.

9. Quality Management System

It needs to be emphasised that quality is difficult to define as the notion varies individual to individual. While quality can be viewed as a judgement about the goodness and management of the interpersonal exchange between an organisation and the client, five spheres can be measured in order to judge the level of quality: employee satisfaction, client satisfaction, the stability of the workforce, organisational outcome, consumer satisfaction and regulatory performance. The quality management system is a driver for enhancing competitiveness (Lengnick-Hall, 1996; Cummings and Worley, 2014).

10. Senior Management Support

Senior management support is an integral part of organisational success. Specifically, senior management support includes a broad range of organisational activities and comprises developing banking procedure, support quality management and policy formulation. Similarly, senior management formulates, decides objectives and strategies for organisational risk management activities and overall objectives (Henriksen and Uhlenfeldt, 2006). Specifically, organisations adopt risk management to foresee the probability of a negative impact and risk management requires senior management support.

11. Project Champion

A project champion plays a crucial role in the successful implementation of a capital project (Lefley, 2006). A project sponsor is an individual or body that assumes the role of the primary risk taker and on whose behalf the project is undertaken (Bryde, 2008). Such individuals or body represent the clients and act in their interest in the daily management of the project. The individual is saddled with activities that span across the project lifecycle, and this includes enumerating business requirements and benefits, crafting project strategies, agreeing on the project definition and objectives, enumerating project success criteria and taking decisions on the project cancellation (Office of Government Commerce, 2007). As a focal point between the project manager and the client, the role of a project sponsor can be categorised into two broad categories. Apart from the project focussed on behalf of the client, it offers the project manager and team the necessary support to fulfil their role (Bryde, 2008). Given such a critical role, it could be surmised that a project sponsor plays a vital role regarding the risk impact of the project. Thus, the project sponsor is a key driver in risk management practices.

12. Project Vendors

Vendors are significant partners in a project as they may create, deliver, maintain or support critical project components. It must be emphasised that the relationship between vendors and the organisation is vitally crucial to successful projects. Evidence abounds that shows that a better fit between user organisation and vendor is positively linked with the implementation success of a software (Somers and Nelson, 2001; Tan et al., 2009). Thus, the organisation needs to maximise its compatibility with their vendors. Specifically, the relationship between an organisation and its vendors should be strategic to enhance its efficiency and competitiveness. Deepening partnership with the suppliers has been identified as a critical enabling factor that is necessary for project management success (Somers and Nelson, 2001; Tan et al., 2009; Ram, Corkindale and Wu, 2013).

13. Change in Corporate Culture

Organisational or corporate culture is a dominant concept in organisational theory and research, and it refers to how the organisation meets the requirements of its customer and the degree to which organisational members fit within an organisation (Harris and Ogbonna, 2002). It could be viewed as a pattern of shared values and beliefs that assist individuals in understanding the functioning of an organisation and accordingly offer them with behavioural norms in the organisation. However, changes in corporate culture could impair organisational success if they are not well handled. Change in corporate culture could be considered a risk factor and the management of such risk could affect organisational success.

14. Project Governance and Execution

While a successful project improves productivity and organisational value, the effective project governance structure is a major success determinant (Lechler and Dvir, 2010; Lee, Swink and Pandejpong, 2011). Project governance seeks to create viable conditions for collective action and ordered rule by offering a formal representation of the organisational arrangements surrounding a specified project (Zwikael and Smyrk, 2015). The temporary nature of projects requires a unique governance structure, which co-exists with them despite being distinct from the relatively stable structure of the organisation. However, the allocation of accountability to specific entities in the project governance model is vital as it assists in bridging the gap between the expectation of roles and the way such roles are fulfilled by attaching rewards and sanctions to performance levels (Zwikael and Smyrk, 2015).

15. Benefits Realisation

“Benefits realisation” is defined as the process of managing and organising that realises the benefits to ensure the potential benefits arising from the investment are achieved (Peppard, Ward and Daniel, 2007). This process is enacted to ensure that expected profits of capital investment are realised. It is noteworthy that many benefits linked to technology during the investment appraisal process are overstated to ensure its adoption. Specifically, many benefits enumerated in the business case are often not expected to materialise, as the success of an IT project is measured based on whether the system delivers within budget, on time, or meets technical specifications

(Peppard et al., 2007). However, ensuring that benefits of the IT project are realised requires several approaches, with the Plan-Do-Check-Act (PDCA) cycle central. While benefits change over time and are determined by strategic and business contexts, all outcomes represent a potential source of value, and this requires the proactiveness of the organisation to ensure the realisation of considerable benefits (Nogeste and Walker, 2005).

16. Strategic Alignment

The advent of globalisation and trend towards globalisation of the business environment has spawned profound internal and external transformation as most organisations are increasingly re-creating their value chain and striving for closer relationships with their business partners and customers (Bergeron, Raymond and Rivard, 2004). Given this, most organisations are increasingly deploying information technology to respond or anticipate changes in their business environment. The notion of strategic alignment emanates from a strand of literature whose proposition is that organisational performance is consequence upon the fit between two or more factors, including such factors as structure, strategy, culture, technology, and environment.

17. Level of Investment

Although projects are managed by organisations daily, their implementation requires the deployment of varied methods for their successful completion. However, organisations must implement adequate methods, tools and techniques to enhance efficiency in project management. The workforce is trained in project management, with the development of career paths and the need for specialised software. While organisational structures require suitable modifications to support project execution, these require a high level of investment. Although organisations manage a significant number of projects, project success is often closely related to the success of the entire organisation from both the strategic and operational perspectives. While organisations need to enhance their knowledge in project management, the assessment of maturity levels in project management is the commonest method of enhancing the activities related to project management (Spalek, 2014). This allows organisations that receive their assessment results from identifying gaps in different areas for potential enhancement. However, the question is often when to start and in what sequence?

18. Performance Measurement

Performance measurement plays an integral part in ensuring project success and its usefulness to the sponsoring organisation (Pillai, Joshi and Rao, 2002). The project and organisational performance in a controlled environment are sensitive to the metrics of measurement. Thus, it is crucial to devise an appropriate performance measurement system to suit the organisational and project environment. The notion of performance measurement implies the identification of certain performance criteria and metrics for their computation. While several metrics have been developed for project evaluation during the selection phase, there are well-developed metrics for project performance measurement during the execution phase. Similarly, there appears to be no explicit association between the performance factors measured during the project execution phase and factors that may determine the project performance during the implementation phase (Pillai et al., 2002). However, there are issues on the nested method to evaluate a project during its execution, as well as the use of the available project knowledge to forecast project failure and initiate its closure to prevent additional drain of resources (Pillai et al., 2002; Trkman, 2010).

19. Employee's Specialisation

Job specialisation comprises a breakdown of the task into different parts and the designing of jobs around each part. It is contended that this creates employee specialisation and expertise, as well as enhances quality. Job specialisation design in the workplace is often seen as when an employee focuses on one specific task and skill during the entire work shift (Adeyoyin et al., 2015). While job specialisation enables the significant build-up of expertise in a specific task, this is accompanied by enhanced learning and faster production. Specifically, the job does not involve complex processes and can be taught faster to new employees. While this may impair quality control, it nevetheless enhances efficiency of production (Thibodeaux, 2012; Adeyoyin et al., 2015). However, the issue with such employee specialisation is the tendency to require the workforce to specialise in one task while being trained to handle multiple tasks. This may lead to a loss of critical expertise and, in turn, hinder the process. Similarly, specialised employees do not have an array of applicable skills, and it becomes difficult for such a workforce to adapt to a new organisational function (Adeyoyin et al., 2015). Thus, there is an inherent risk when the level of employee specialisation is not adequately catered for.

20. Organisation Changes/Structure

Change management is viewed as the process of continual renewal of organisational direction, capabilities, and structure to serve the continuous changing needs of internal and external customers (Moran and Brightman, 2001). It is noteworthy that change is a prominent feature of organisational life both at the strategic and operational level (Burnes, 2004). Thus, every organisation must identify where its future position lies and the management of changes required to get there. However, organisational change is interwoven with organisational strategy (Burnes, 2004). Similarly, the successful management of organisational change is considered a necessity for organisations to succeed and survive in an evolving and highly competitive environment (Luecke, 2003). Evidence abounds about the high failure rate in adapting to change, while the low success rate suggests that there is a fundamental lack of a valid framework for the implementation and management of organisational change (Burnes, 2004).

21. Process Owners

The existence of process owners is the most visible difference between a traditional organisation and a process enterprise (Trkman, 2010). Specifically, all processes must have a clearly defined owner who reviews process performance and is responsible for its continuous improvement. It is noteworthy that advanced organisations appear to have a higher proportion of process owners often at the supervisory and senior executive. A process owner must have a permanent role with real responsibility for and authority over designing the process to ensure success and measure its performance and train the performing frontline workers. Similarly, the continuous update and review of the performance measurement system should be considered a process with a defined process owner that is in charge of required skill development. Thus, the process owners are saddled with assuring the dynamic improvement of business process capabilities. Similarly, the appointment of process owners can enhance the commitment and inclusion of middle management to business process management. However, the reluctance of middle management is considered one of the major reasons for the lack of success of such projects (Terziovski et al., 2003; Trkman, 2010).

22. Implementation of Proposed Changes

The successful implementation of organisational changes depends on the quality of the implementation process. Specifically, it requires a collaborative effort between the change agent and the manager. Although uncertainty in the pre-implementation stage centred on strategic change, it majorly relates to the required procedures to implement changes. Specifically, the uncertainty over management of the middle managers is crucial in helping their workforce in the transition period to change (Herzig and Jimmieson, 2006). The focus is often on limited key processes as the simultaneous project renovation for all identified processes are bound to fail.

23. Use of Continuous Improvement Systems

The underlying premise of dynamic capabilities theory is that continuous improvements are vital, and both the formal structure and organisational culture should encourage them. Evidence shows that change management is vital in both business process management programmes and assuring the payoff of information technology investment, although few organisations are able to achieve continuous enhancement (Trkman, 2010). Hence, a proper system requires a design with the integration of various quality and process-oriented improvement approaches. Given this, top management must be assertive and supportive, while process owners should be the driving force for popularising the concept. Thus, it is suggested that the process be partly formalised, and each workforce should get a response from the process owner, and that the workforce must be able to access updated versions of business process models.

24. Process Standardisation

Process standardisation is a desirable element that offers technical interchangeability, regulation compliance and enhanced customer confidence (Wüllenweber et al., 2009). More so, standardised processes offer uniform tasks that can be supported by an ideal technological solution. Theoretically, a business process management system leads to an increase in standardisation as the processes are executed by rules and specification (Küng and Hagen, 2007). However, the imposition of rigid rules on the process could impede innovation, hamper accountability and harm performance (Trkman, 2010). Thus, organisations should avoid over-standardisation of their artistic processes (Hall and Johnson, 2009).

25. Informatisation

Informatisation is the degree to which society, a geographical area or an economy is becoming information-based. That is the increased size of its information workforce forces. The task-technology fit theory posits that process and technology must be renovated to reap the desired result (Trkman et al., 2007; Trkman, 2010). Similarly, a certain level of process renovation should be involved in software adoption, as there might be an incompatibility between the packaged software and the current needs and organisational business processes (Ngai, Law and Wat, 2008; Trkman, 2010). However, a careful cost-benefit analysis must be conducted to evaluate the economic viability of informatisation, to obtain financial and top management support (Hur, Mabert and Hartley, 2007; Trkman, 2010).

26. Automation

Apart from informatisation, process automation is the deployment of information technology to assist or replace the workforce in the business process performance (Harmon, 2003; Trkman, 2010). While many routine tasks can be automated, other tasks still require human intervention. Generally, a task can be either manual or fully/semi-automated (Shi, Lee and Kuruku, 2008; Trkman, 2010). However, business process modelling and its automation enhances business activity performance and enables enterprise-wide coordination and monitoring (Nikolaidou et al., 2001; Trkman, 2010). While an automated system offers high speed, lower cost with a better result, its development can be very costly, and the required automation might sometimes not be possible due to inherent technological limitations (Reijers and Mansar, 2005; Trkman, 2010). In the event of unautomated tasks, the workflow management system (WFMS) can be introduced to support and enhance the processes. There is evidence to suggest that WFMS offers an enhancement to the considerable business process regarding service time, lead time, resource allocation and waiting time (Reijers and Van Der Aalst, 2005; Trkman, 2010).

27. Training and Development

Organisations must continually ensure that their workforce learn and develop to remain competitive. Training and development activities enable organisations to compete, adapt, innovate, excel, enhance service, produce and reach goals. Organisations invest in training on the premise that a skilled workforce enhances organisational competitiveness (Salas et al., 2012). Hence, the decision on how to implement and evaluate training, as well as how and what to train on should be based on information science. Although there is no specific method for developing employee training, appropriate employee training and development programmes must be an amalgam of knowledge, goal setting and career development (Jehanzeb and Bashir, 2013). That will ensure that programmes are more useful for the organisation and employee.

Similarly, organisations are increasingly adopting information technology systems for their training and development programmes. Knowledge and information systems are increasingly evolving. Specifically, task training must be given to the workforce to cope with the new task. It is the responsibility of the organisation to ensure that the workforce has skills, knowledge and abilities, and these skills must be based on the required job level (Jehanzeb and Bashir, 2013). Similarly, the required employee skills and knowledge should be provided at the right time.

28. Bank Operations

There is an increasing effort by banking institutions to build relevant risk management systems systematically, and this has seen the institutions being among the first to apply for an advanced model for capital requirements calculation and deployment of the ICAAP tool, which can be considered an alternative to enterprise risk management (Pilková, 2010). While ICAAP is popular within commercial banks as a regulatory requirement, it is not widely accepted by bankers as a good development framework of the internal risk management system.

29. Bank Governance Bodies

The bank governance bodies play a vital role in the adjusting to complications in the key bank system, such as risk management (Pilková, 2010). Such bodies bring consensus to the entire bank and apply a common approach to manage new situations. Specifically, the bank governance bodies are involved in the change process to prepare the bank for a foreseeable new situation. Their key responsibility regarding general managerial areas includes approving newly projected risk profiles and risk-taking capacity; communicating projected risk profiles, and risk-taking capacity to key shareholders to evaluate their enthusiasm for risk and readiness to support with capital (Pilková, 2010; Pilkovà, Holienka and Munk, 2013).

30. Chief Risk Officer Leadership Role

The chief risk officer (CRO) is an authority who is accepted by the other top management due to his/her characteristics, communication skills, professional capabilities, as well as capabilities to encourage others to accept a risk management vision (Pilková, 2010). The CRO needs to be flexible and capable of managing under a high level of uncertainty and should be conservative regarding decisions on expected risk parameters, minimum capital levels, provisions, and capital cushion. CRO is very transparent and has a corporate social responsibility mindset when embracing or proposing risk management solutions. Similarly, CRO has a clear vision, own strategy and plans for reviewing the risk management system to identify risk drivers at every level of the process and their effect on the bank's risk profile and risk-taking capacity (Pilková, 2010; Pilkovà, Holienka and Munk, 2013; Usman and Shah, 2013).

31. Policy Procedures and Communication

The banking institution is increasingly moving towards increased communication about its policy decision and procedures, as well as the target sought to achieve those decisions (Woodford, 2005; Usman and Shah, 2013). The importance of communication strategy for policy effectiveness is an offshoot of a fundamental feature of the problem that banking is called upon to solve. As a key player in the economy, the banking institution substantially impacts the economy. Thus, its policy and procedures must be communicated effectively to reduce its risk on the economy.

32. Management Support

Organisations must adapt appropriately to the rapidly changing and challenging business environments (Nijstad, Berger-Selman and De Dreu, 2014). However, the most influential group in an organisation on decision making and innovation implementation is the management team, and it is charged with crafting strategy and ensuring organisational effectiveness. Effective management support is a critical factor for effective implementation of the information system. There is evidence to show that management support is vital due to the implementation of innovation of the information system.

33. Internal Audits and Control

Reliable reporting is crucial for parties that have contractual relations with an organisation, and effective internal audits and control are vital in achieving reliable reporting (Schneider and Church, 2008; Usman and Shah, 2013). Internal audits and control are designed to offer reasonable assurance regarding financial reporting reliability and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles (PCAOB, 2004). Similarly, effective audit and internal controls are fundamental drivers of quality of earnings (Doyle, Ge and McVay, 2007a; Usman and Shah, 2013). There is evidence that shows that lower quality earnings are linked to weaknesses in internal controls (Doyle, Ge and McVay, 2007b; Usman and Shah, 2013). Similarly, empirical studies show that auditors' reports impact on the judgement or decision of the lenders (Schneider and Church, 2008; Usman and Shah, 2013). Furthermore, uncertainty regarding modified audit reports influence the risk assessment of lenders, interest rate premiums and decision on granting of loans.

34. Technical Factors on System Security and Performance

Information security comprises both technology and people. While advances in technology have enhanced the business climate, the human factor is the achilles heel of information security (Gonzalez and Sawicka, 2002; Usman and Shah, 2013). There are two data sources reflecting the interplay between technology, human behaviour and work environment in information security systems: field studies and experiments in simulated microworlds.

35. Trust

Although there has been a proliferation of studies on the concept of trust, there have been questions on the dimensionality of trust. Trust is considered a psychological state consisting of the intention to accept vulnerability based on the positive expectation of the behaviour or intentions of the other (Earle, 2010). A survey of the empirical literature identified two types of trust: relational trust and calculative trust. The relational trust is based on the link between a trusting person and the other, while the calculative trust is based on the past behaviour of the other and constraint on future behaviour (Earle, 2010). However, there are two theories regarding trust in risk management. One is based on normative considerations and claims that trust is premised on universally applicable factors, such as objectivity and fairness, while the other theory, socio-psychological theory, posits that trust is premised on similarity or agreement and that it is context-specific (Earle, 2010).

Although there are extensive studies in critical success factors for improving banking performances, critical success factors in risk management practices for commercial banking, particularly in Nigeria, are rare. Therefore, in order to identify the critical success factors for risk management in commercial banking in Nigeria, contextual investigations are expedient.

2.4 Critical Analysis

A comprehensive review of the existing literature on risk management shows that risk management practices are critical for reducing financial losses, improving decision-making, enhancing resource allocation and potentially galvanising communication with the stakeholders (Hubbard, 2020; Kliem & Ludin, 2019; Smart & Creelman, 2013). However, despite a huge body of literature on risk management practices, one noticeable feature of these studies is that there is no consensus on the widespread identification of a set of critical success factors (Butaru et al., 2016; Osei-Kyei & Chan, 2015). This hiders various organisations from replicating these factors in their organisations. More so, these factors cut across industries, and there appears to be no industry-specific factors (Gatzert & Martin, 2015). With various industries facing different types of risk, it is important to be able to narrow down certain types of risk to a specific industry. This will assist in crafting effective risk management practices for that industry.

Although various critical success factors on risk management practices are identified, the existing literature does not quantify the degree of each factor required for optimal risk management practices (McNeil, Frey & Embrechts, 2015). The inability to quantify these factors goes to the heart of the methodologies used in these studies. More often than not, a qualitative research approach is utilised in these studies. While such methodology has its benefits, the magnitude of such critical factors would enable the organisation to prioritise their resources on the most salient critical success factors for risk management practices. The few studies which adopted the quantitative approach often failed to provide justification for its adoption and the few that provided such justification were not industry specific (Bromiley et al., 2015). By using the inherent benefits of qualitative and quantitative research approaches, it will be shown that adopting a mixed-method approach will be more effective and beneficial for this study.

Another noticeable feature of the extant literature on risk management practices is that the determination of the critical success factors is determined by the way these constructs are defined in those studies (Aven, 2016). Specifically, there appears to be a lack of agreement on the definitions of these critical success factors. This raises a fundamental issue on the data collection techniques in most of these studies. With most studies adopting qualitative approaches, the interview is the commonest data collection technique that is utilised. Despite most studies claiming the use of semi-structured interviews, the utility of such types of interviews, which would ideally allow the researcher to ask a follow-up questions in the case of ambiguity, is not duly employed. If this had been done, some of the ambiguity relating to the definitions of the critical success factors would have been resolved. Moreover, the few studies that utilised questionnaires often replicated the same set of constructs without noting the limitations inherent in previous studies (Mikes & Kaplan, 2015). Thus, it is essential to adopt both semi-structured interviews and questionnaires, as well as highlight the limitations inherent in the existing studies to galvanise effective critical success factors regarding risk management practices.

Similarly, most of the studies focused on developed economies while the few studies regarding developing economies replicated the critical success factors identified in studies relating to the developed economies. However, the location and types of economy are critical drivers of risk management practices since the level of investment is often driven by location and types of economy. While there is a dearth of literature on risk management practices in developing economies, it is almost non-existing in Nigeria. The few available studies on Nigeria are not banking-related, while those banking-related studies focus on other areas of risk management. To the extent that the banking industry is the mainstay of the Nigerian economy, it is crucial to explore risk management practices in Nigerian banks. This is even more important for the commercial banking sector since it controls over 80% of the Nigerian banking industry.

Furthermore, the existing literature tends to focus more on credit risk, and places limited emphasis on other types of risk, especially operational risk. It needs to be stressed that the Nigerian banking industry, especially commercial banks, faces various types of risk, and each of the risks has an enormous impact on the effectiveness of the risk management practices in the bank. In addition, these various risks are complementary in nature and dwelling on certain types of risks might prevent the study from taking into consideration the cofounding effects of the other types of risks. Thus, the robustness of any study regarding risk management practices will be dependent on giving consideration to various types of risks in the study.

2.4.1 Research Gap

Overall, there appears to be a lack of coverage on Nigerian commercial banks, emphasis on credit risk factors to the detriment of operational risk factors, the omission of some risk factors or control variables, and lack of consensus on effective methodology and data collection techniques. In particular, most of the reviewed scholarly works discussed critical success factors from a range of perspectives and in different ways. Some of the scholars specified the factors that are significant and those important factors in relation to effective risk management. However, none appeared to look at the concept from the perspective of commercial banking in Nigeria. There is, therefore, a significant knowledge gap in terms of our understanding of whether, and if so, in what ways these concepts can be relevant or applicable to the Nigerian commercial banking industry. It is this identified knowledge gap that the study herein seeks to fill through the examination of the critical success factors that contribute to effective risk management practices in the commercial banking industry in Nigeria.

2.5 Conclusion

Having discussed in detail various drivers of risk management practices and critical success factors by reviewing literature from different scholars on risk management practices, it is evident that there is a need for contextual investigations to identify those factors that contribute to effective risk management in Nigerian commercial banks. It was also evident that those critical success factors are fundamental to achieving success in implementing management practices in the banking sector. Therefore, the next chapter (chapter three) will discuss further the Nigerian banking industry, highlighting different themes under risk management, which include types of risks in banking, risk management in banks and its justification, that is, the need for a study on risk management in commercial banks in Nigeria, as well as risk management procedures and Basel accords.

Chapter Three: Banking Industry and Risk Management Practices in Nigeria.

3.0. Introduction

In order to contextualise the study, this chapter presents definitions of terms, and traces the evolution of commercial banking in Nigeria. In addition, risk management overview and procedures are presented. It then covers risk management in banks, the rationale for risk management in banks, risk management issues in Nigeria, as well as Basel accords and risk management practices in the commercial banking industry.

3.1 Definitions, Functions and Roles of Banks

Bank refers to a financial institution authorised by a government to receive deposits, provide loans, act as an intermediary in financial transactions and provide other financial services such as wealth management, safe deposit boxes and currency exchange to its customers (Cannan, 1921; Beatty and Ritter, 1986; Oluduro, 2015).

Considering the definition above, the major role of a bank is to provide intermediation services between borrowers and depositors such as lending money to individual and business organisations on request and accept a deposit that can be withdrawn on demand. Banking industry appears to be superior compared to other financial institutions in different aspect because they offered a variety of services to their clients (Bhattacharya and Thakor, 1993). Banking institutions accept deposits and lend money directly to their borrowers than other financial institutions such as Insurance Companies or Pension Fund (Kent and Thompson, 2008). In addition, banks also perform a payment agency role to their customers by providing additional services in shape of accepting cheques, issuing the letter of credit and other guarantees (Heffernan, 2005; Kent and Thompson, 2008). The aforementioned indicates that a bank facilitates business activities and play a major role in the economic development of a country. Molyneux and Wilson (2007) assert that “banks are of central importance for economic growth, financial stability, credit allocation, and the competitiveness and development manufacturing and service firms" (Molyneux and Wilson, 2007). Hence, because of the strategic role of banks, banking can be seen as an important and fundamental part of any economy, in which without it, economic activities might be practically impossible (Oluduro, 2015).

There are various types of banks, and each one of them specialises in different areas. Some of the most common types of banks are retailed/commercial banks, investment banks, credit unions banks, central/federal/national banks, industrial/development banks, Mortgage banks, indigenous banks, co-operative banks and Merchant banks. In Nigeria, being the country under consideration, the major types of banks are central banks, investment banks, retail/commercial banks, and micro-finance banks. A central bank is a federal bank that provides financial and banking services for its country's commercial banking system and government. The bank also implements the government's monetary policy and issuing currency, as discussed in chapter one, section 1.2.2.1. Retail/commercial banks are established to provide services to the general and to help businesses. The bank collects deposit from the public in the form of saving and give short-term loans to businesses/companies by way of cash credits, overdrafts, and so on. Investment banks, on the other hand, help businesses work in financial markets. Businesses make use of investment banks if they intend to go public or sell the debt to investors. Micro-finance banks are licensed by the Central Bank of Nigeria (CBN) to provide microfinance services such as savings, loans, domestic funds transfer, and other financial services that are needed by small and medium enterprises in order to expand their businesses. Also, to an economically active individual who is willing to start their own business (Levine and Barth, 2001; Anyanwu, 2004; Soludo, 2004; Sanusi, 2010; Oluduro, 2015).

The commercial banks are considered for this study because of their major and immense contribution to the economic growth of Nigeria (Schumpeter, 1961; Okoye and Okpala, 2001; Achua, 2008; Sanusi, 2010). Some of the commercial bank's roles are:

- They provide the capital needed for development – individuals and businesses obtain loans and overdraft from commercial banks to start a new industry or to engage in other development efforts.

- Commercial banks provide direct loans to individuals and government for investment purposes.
- They help to enhance the development of international trade by acting as referees to importers, providing traveller's cheque to those travelling abroad, and opening letters of credit for export.
- They also create money as an instrument to the Central Bank for all its activities.

3.1.1 Evolution of Commercial Banking in Nigeria

Fight (2004, p.7) explained that commercial banks in most of the world are referring to as “retail” or “clearing” banks, but in Europe, it is known as “universal banks”. These banks provide a wide range of services through an extensive branch network and generate larger part of their funding from the public in the form of retail deposits. Most of the commercial bank's clients range from individuals to corporate organisations.

The history of the commercial banking industry in Nigeria can be dated back to August 1891, when a local agent - Elder Dempster & Co., a Liverpool based shipping company persuaded African Banking Corporation (ABC) which was operating in South Africa to open an office in Lagos state – Nigeria. The management of the bank was so excited about the invitation because they believed that Elder Dempster & Co. would ensure the successful operation for the bank to be established in Lagos. However, the initial excitement was inhibited by the delay in granting the bank the right to import silver coins from the Royal Mint in London for distribution in Nigeria as Originally planned (Adekanye, 1982).

In January 1892, barely two months after securing the right, Lagos experienced a trade depression, and under the deteriorating trading relations, the management of ABC regretted their decision to operate in Lagos. As a result, ABC management did not hesitate to welcome Elder Dempster & Co.’s offers to buy over the bank, a deal, which was concluded in March 1893. However, the bank was later absorbed by the Bank of British West Africa (BBWA), which was incorporated in March 1894. At this period, BBWA had the monopoly of importing silver coins into Nigeria and by 1908; this monopoly had been extended to cover entire West Africa. It was in 1908 that BBWA monopoly of the banking business was challenged with the establishment of the Anglo-African Bank. Remarkably, the new bank, which was later, renamed Bank of Nigeria, could not endure the aggressive competitiveness posed by BBWA and was eventually bought over in 1912. BBWA remained the only bank in Nigeria until when the Colonial Bank was established in 1917. Though BBWA made three different acquisition proposals between 1917 and 1938 to absorbed Colonial Bank, the management of the Colonial Bank turned it down.

In 1925, Barclays Bank absorbed the Colonial Bank to form an integrated international banking group with several largely autonomous entities, and the new bank was named Barclay Bank (Dominion, Colonial and Overseas (D.C.O)). This new bank remains BBWA's greatest competitor, and the two banks dominated Nigerian banking until 1948 when the British and French Bank, was incorporated as United Bank for Africa Limited (UBA), to join the scene. In 1956, BBWA dropped the word "British" in its name to reflect the emerging independent status of West African countries where it did business. The bank new name became known as Bank of West Africa (BWA), and in 1969, the name changed to Standard Bank of Nigeria Limited. Ten years after, the bank's name became First Bank of Nigeria Limited. It has since reflected its limited public status by adding the letters Plc in place of limited. On the other hand, following the political rift between the parent bank, Barclays bank PLC of UK, and the Nigerian government, under the leadership of General Olusegun Obasanjo in 1979, Barclays (D.C.O) also changed its name to Union Bank of Nigeria Limited.

In 1929, a group of Lagos-based Nigerians established the first indigenous bank, called Industrial and Commercial Bank. This was incited by the resentment of Nigerian businessmen to the policy of the expatriate banks, which, though solicited deposits from them, declined their credit requests. However, this newly established indigenous bank came to a hitch soon as the bank tried to do what expatriate banks were unwilling to do - lending money to indigenous businessmen. Due to the bank's liberal credit policy, the bank ran into problems and liquidated after about a year of operation. In 1931, another indigenous bank called the Nigerian Merchantile Bank was set up, headed by the same Managing Director under whom the Industrial and Commercial Bank had liquidated the year before. However, due to adverse business conditions, the bank also failed in 1936.

The first surviving Nigeria indigenous bank, National Bank of Nigeria came into existence in 1933. This bank was established by a group of businessmen but was later taken over by the Western Regional Government of Nigeria. The survival of this bank for a long period was ascribed to the support of the Regional Government and its superior management quality. The success of the National Bank of Nigeria largely encourages indigenous banking interest in Nigeria, as a result, in 1945, another surviving indigenous commercial bank, Wema Bank Plc, was established as Agbonmage Bank. African Continental Bank which was established in 1946, began with buying over the entire shares of Tinubu Properties Limited, a Lagos based company owned by late Nnamdi Azikwe – who later became the first president of an independent Nigeria, the company was transformed into a bank known as Tinubu Bank Limited and was later renamed in 1947 as African Continental Bank. It is important to note that the success of all these earliest mentioned indigenous banks (African Continental Bank, Wema Bank and National Bank) could be associated to the involvement of the regional governments in those days. The success of these banks continues until the 1950s, a distinct decade of an exceptional boom of banking registration in Nigeria. During this era, several indigenous banks were registered, but most of them folded up in no time due to high demands of credit from customers.

The histories of indigenous banking before independence in 1960 are known with more failures than success, as shown in Table 3.1 below. Twenty-one (21) out of the twenty-five (25) newly established indigenous bank folded up in

1954, in which 15 of these banks were liquidated in 1954 alone. Adekanye (1982) recorded that none of the banks established in the 1950s survived beyond 1960 and the failure of these indigenous banks in Nigeria was due to lack of managerial expertise, acute capital inadequacy and the problem of liquidity. However, Banking Ordinance of 1952 was introduced to scrutinised unplanned effects of the banks' registration boom. According to Adekanye (1982), the Bank ordinance of 1952 specified some requirements the indigenous banks and foreign banks have to meet, among them are, the banks must maintain an adequate degree of liquidity satisfactory to the monetary authority; the minimum capital requirement; and the banks must provide for bank examination and supervision. This policy serves as a guide to regulate banking practices in the Nigerian banking industry.

Table 3.1: The History of Failed Commercial Banks in Nigeria

S/N	Name of Bank	Year of establishment	Year folded up
1	ABC – African Banking Corporation	1892	1893
2	Anglo-African Bank (Bank of Nigeria)	1899	1912
3	ICB – Industrial and Commercial Bank	1929	1930
4	NMB – Nigerian Mercantile Bank	1931	1936
5	NPB – Nigerian Penny Bank	1940	1947
6	NFCB – Nigerian Farmers and Commercial Bank	1947	1952
7	PNB – Pan Nigerian Bank	1951	1960
8	Standard Bank of Nigeria	1951	1954
9	Premier Bank	1951	1960
10	Nigerian Trust Bank	1951	1954
11	Afroseas credit Bank	1951	1954
12	Onward Bank of Nigeria	1951	1954

13	Central Bank of Nigeria	1951	1954
14	Provincial Bank of Nigeria	1952	1954
15	Union Bank of British Africa	1952	1954
16	United Commercial (Credit) Bank	1952	1954
17	Cosmopolitan Credit Bank	1952	1954
18	Mainland Bank	1952	1954
19	Group Credit and Agric. Bank	1952	1954
20	Industrial Bank	1952	1954
21	West African Bank	1952	1954
22	The Merchants Bank	1952	1960
23	Muslim Bank	1958	1965

Table Source: Adekanye (1982)

3.1.2 Nigerian Commercial Banking since 1965

Banking services in Nigeria have been in existence for almost sixty-six (66) years without any regulatory body to control banking operations until when Central Bank of Nigeria (CBN) was established in 1958. There is a turning point in the Nigeria banking system when the CBN fully commenced operation in 1959. However, in order to harness the banking activities for national development and growth, CBN spring into action by supervising and regulating the banking activities. As a result, only twelve (12) commercial banks were able to survive the depression and financial crisis up to 1960 (Adekanye, 1993; Ikhide and Alawode, 2001).

The main aim of the regulatory body was to restore confidence in the banking system and safeguard depositors and investors' money. CBN introduced money market instruments such as product bills, treasury bills and call money scheme in order to control the banking activities of the foreign-owned banks, which were primarily operating like divisions of their overseas parent bodies, by actively investing in the financial markets development of their countries of origin. There was a great impact of introducing money market instruments, which lead to an increase in foreign-owned banks investment in Nigeria by the equivalent of almost N13million naira and significant dropped in their investment in the overseas market from the equivalent of over three million nairas in 1960 to less than a million naira in 1962. The number of commercial banks also increased from 1960 to 1965 from 13 to 15, with a total branch network of 240 (Adekanye, 1993; Okpara, 2009).

In order to strengthen the government's control of the banking activities, the Companies Act was publicised in 1968, which mandated all foreign-owned companies in Nigeria to integrate locally under the new company law. This Act forces the foreign-owned banks to register as Nigerian companies. In 1969, the Nigerian Banking decree, which later changed to Banks, and Order Financial Institutions Decree (BOFID) was put in place to establish the authority and to control of CBN over banks firmly. In this same year, CBN issued the first Monetary Policy Circular for supervising and monitoring Nigerian banking operations, which has now become an annual document to be submitted by banks to CBN. By 1980, the total number of commercial banks rose to 20 with a total of the branch network of 800. The number of commercial banks expanded to 28 in 1986, with a total branch network stood at about 1,297 (Adekanye, 1993; Ikhide and Alawode, 2001; Okpara, 2009). However, following the liberalisation of entry restrictions, the banking industry witnessed a period of unprecedented physical expansion, as shown in Table 3.2 below:

Table 3.2: The growth of Commercial Banks between 1960-1992

Year	Number of Banks	Number of branches
1960	13	192
1965	15	240
1970	15	273
1975	17	445
1980	20	779
1985	28	1297
1989	47	1844
1990	58	1939
1991	65	2023

1992	65	2269

Table Source: Adekanye (1993)

In 1989, the total number of commercial banks stood at 47 with branch offices of 1,844. Eleven (11) new banks were licensed in 1990, bringing the total to 58 with a branch network of 1,939, as shown in Table 3.2 above.

Since 1952, numerous banks in Nigeria came on board despite the challenge of the new management and banking system. From 1960 – 1992, bank growths soared high, and the banking sectors needed specific reform to handle the nation's rising posture (Corkin, 2011). In the end, Nigerian banks sought their potential to grow and to be the economic power in Nigeria. Indeed, the banking ordinance and the Banking Act 1979 helped change the structures of the banks.

As of 1991, there was a massive increase in the number of banks with not less than one hundred and twenty-one (121) commercial banks and Merchant banks in Nigeria. This was made up of fifty-six (56) merchant banks and sixty-five (65) commercial banks. Twenty (20) new banks were given license to operate in 1991 alone, arising from the deregulation of the economy by the federal government, which brought an enhanced free-market enterprise and the liberation of the banking licensing scheme (Oluduro, 2015). Soyibo and Adekanye (1992) cited in Yauri, Musa and Kaoje (2012) highlighted that between 1930 and 1958; over 21 bank failures were recorded in the Nigerian-banking sector. The authors claimed that the banking failures during that era might be caused by the domination of foreign banks in terms of exclusive patronage by British firms. The problem of banking distress was also recorded both in the 1990s and in the early parts of 2000s (Yauri, Musa and Kaoje, 2012).

The figure 3.1 below shows that the total number of banks in Nigeria stood at 115 in 1995. The number of distress banks increases from 15 in 1991 to about 55 in 1994; in 1995, 60 banks were recorded to be distressed and reduced to 47 in 1997.

Figure 3.1: Ratio of Total Banks to Distressed Banks between 1990 – 2006 in Nigeria.

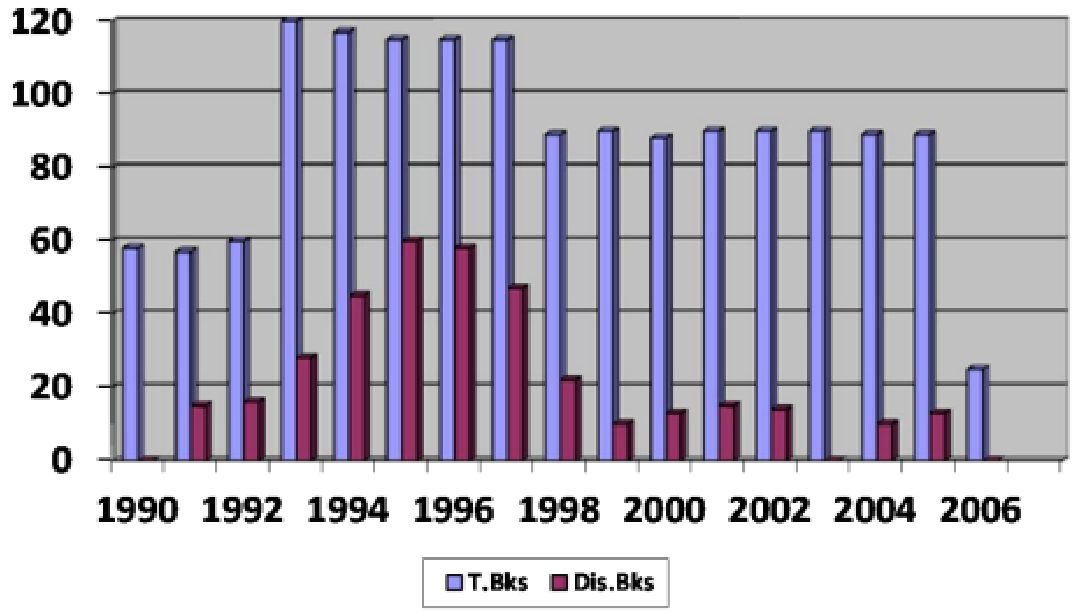


Figure Source: Yauri, Musa and Kaoje (2012)

Oluduro (2015) explains that bank distress alone claimed the lives of twenty-seven (27) banks between 1994 and 2003, which resulted in the loss of wealth and public confidence in the banking system. Hence, this necessitated drastic regulatory measures to be taken in the succeeding years to curtail the wave of failure, which was on the high side, and to restore public confidence in the banking sector. In late 2004, the Central Bank of Nigeria (CBN) issued a directive ordering banks to jerk-up their capital base (paid-up) from Twenty-five (25) billion Nigerian Naira by December 2005 (That is, bank consolidation era) in Nigeria banking system.

At the end of the forced consolidation on December 31, 2005, twenty-five banks (25) emerged from seventy-five (75) banks out of eighty-nine (89) banks in the system, which means that fourteen (14) banks fell by the way. The successful consolidation process helps the banking institutions to scale up quickly, gain a large number of new customers, and build more trust from the existing customers. It gives the banks more capital to work with when it comes to lending and investments and helps the banks to achieve their growth goals quicker. Financially, the consolidated bank has a lower aggregated risk profile since a larger number of similar-risk complimentary loans decrease the overall institutional risk. However, there is no perfect process, some of the issues that were raised were that the consolidation process failed to assess cultural fit (not just financial fit), and that many of the employees struggled to adapt to the changes. Another emergent issue during the consolidation process was the risk and compliance culture of each bank involved. Every financial institution handled banking compliance and federal banking regulations differently. As a result, this could negatively affect the profitability of the business for some banks that failed to come up with a working solution.

The banks that scale through are shown in Table 3.3 below:

Table 3.3: Commercial Banks as 31 December 2005

S/N	Emerging Banks	The makeup of Emerging banks
1.	Access Bank Plc	Marina Bank, Capital Bank International, Access Bank
2.	Afribank Plc	Afribank Plc, Afrimerchant Bank.
3.	Diamond Bank Plc	African International Bank, Lion Bank, Diamond Bank.
4.	Ecobank	Ecobank
5.	Equitorial Trust Bank Plc (ETB)	Devcom, Equitorial Trust Bank

6.	First City Monument Bank (FCMB)	Co-operative Development Bank, Nig-American Bank, Midas Bank, FCMB.
7.	Fidelity Bank Plc	FSB, Manny Bank, Fidelity.
8.	First Bank of Nigeria Plc (FBN)	MBC, FBN Merchant Bankers, FBN
9.	First Inland Bank Plc	IMB, Inland Bank, First Atlantic, NUB
10.	Guaranty Trust Bank Plc (GTB)	GTB.
11.	IBTC Chartered Bank Plc	Regent, Chartered Bank, IBTC
12.	Intercontinental Bank Plc	Global, Equity, Gateway, Intercontinental
13.	Nigerian International Bank Ltd. (NIB)	Nigerian International Bank
14.	Oceanic Bank Plc	International Trust Bank, Oceanic Bank
15.	Platinum Habib Bank Plc	Platinum Bank, Habib Bank
16.	Skye Bank Plc	Bond Bank, Co-Op Bank, Prudent Bank, Reliance Bank, Eko International Bank
17.	Springbank Plc	Citizen Bank, Fountain Trust Bank, Omega Bank, Trans International Bank, ACB, Guardian Express Bank.
18.	Stanbic Bank Ltd	Stanbic Bank Ltd
19.	Standard Chartered Bank Ltd.	Standard Chartered Bank Ltd.
20.	Sterling Bank Plc	Magnum Trust Bank, NBM Bank, NAL Bank, INMB, Trust Bank of Africa.
21	UBA Plc	STB, UBA, CTB
22.	Union Bank Plc	Universal Trust Bank, Broad Bank, Union Merchant Bank, UBN
23.	Unity Bank Plc	Pacific Bank, Bank of the North, NNB, First Interstate Bank, Intercity Bank, Societe Bancaire, Centre-Point Bank, Tropical Commercial Bank, New Africa Bank.
24.	Wema Bank Plc	National Bank, Wema Bank
25.	Zenith International Bank	Zenith International Bank.

	Plc	

Table Source: Soludo et al., (2007).

The fourteen (14) banks that failed to meet the requirements are shown in Table 2.4 below:

Table 3.4: List of 14 Failed Commercial Banks in Nigeria as at Dec. 2004.

S/N	Bank Name
1	Hallmark Bank
2	Trade Bank
3	Societe General Bank
4	All States Trust Bank
5	Lead Bank
6	Metropolitan Bank
7	African Express Bank
8	Gulf Bank
9	Fortune International Bank
10	Liberty Bank
11	Triumph Bank
12	Assurance Bank
13	Eagle Bank
14	City Express Bank.

Table Source: Otiti, (2007, p.9).

The on-going consolidation of the Nigerian banking industry has become imperative so as to evolve a strong and resilient banking system that will put the national economy on the path of sustainable growth (Otiti, 2007, p.9). As at present, there are 22 commercial banks in Nigeria and the CBN categorised them into three groups: Tier 1 – International, Tier 2 – National, and Tier 3 – Regional banks respectively as shown in the table below:

Table 3.5: Commercial Banks in Nigeria as at 31 July 2018.

Name of Commercial Banks and Categories			
S/N	**Tier 1 (International)**	**Tier 2 (National)**	**Tier 3 (Regional)**
01	Access Bank	Citi Bank	Providus Bank
02	Diamond Bank	Ecobank Nigeria	Suntrust Bank
03	Fidelity Bank	Heritage Bank	
04	First Bank of Nigeria	Jaiz Bank	
05	First City Monument Bank	Keystone Bank	
06	Guaranty Trust Bank	Stanbic IBTC Bank	
07	Skye Bank	Standard Chartered	
08	Union Bank	Sterling Bank	
09	United Bank for Africa	Unity Bank	
10	Zenith Bank	Wema Bank	

Table Source: Research data collection in May 2018.

3.2 Risk Management Overview

The origin of modern risk management was traced to late 1940s and early beginning of 1950s by Lintner (1965), Crockford (1982), Williams and Heins (1995), Markowitz (1999), Scholes (2000), and Dickinson (2001). It was observed by Snider (1956) that as at that time, no universities offered courses in the subject, and there were no books on risk management. The content of the first two academic books published by Mehr and Hedges (1963) and Williams and Heins (1964) covered pure risk management, which does not cover corporate financial risk. However, Owojori et al. (2011) emphasised that there has been growing risk management concerns within the financial institutions in the last few decades, especially the banking industry in Nigeria.

Carey (2001) highlighted that the financial services sector had witnessed an increase in conditions of uncertainty regarding its operations because the industry has been unstable in the recent financial crisis. Financial activities within this industry are exposed to a huge number of risks. As a result, management of risk is more vital in the financial institutions most especially the banking industry than in any other industry, as reported by Carey (2001)

3.2.1 What is Risk?

Risk, according to Hopkin (2014, p.15), can be described as something that affects the achievement of the corporate objectives of an organisation. Klein (1996) considered risk as those events with the potential to hurt business objectives. Anderson (2014) described risk as a structure and process directed towards the achievement of the potential opportunities and threats affecting the realisation of the objectives of the organisation. He explained further that risk could not be avoided, but it must be managed.

Risk is also a probability or threat of damage, negative occurrence, liability, or loss, which is caused by external or internal exposures and may be avoided through preventive action (Bessis, 2015). “Risk” is commonly referred to as negative, but its consideration should not stifle innovation. Hence, managing the risk is about exploiting potential opportunities as preventing potential problems. Therefore, managing the risk effectively is a fundamental principle of Corporate Governance. (Saunders et al., 2006).

Several studies affirm that banking is one of the most complex activities in any economy that faces a large number of both financial and non-financial risk factors (Ishfaq, 2006; Hussain, 2006; Wood & Kellman, 2013; Shafique, Hussain & Hassan, 2013). The nature and complexity of these risks have changed over time and become more threatening not only for banking operations but also for the bank’s survival (Bessis, 2010; Rahman et al., 2012). It is imperative that banking institutions should not only be efficient but also secure (Pastor, 1999). Hence, Al-Tamimi and Al-Mazrooei (2007) argued that it is essential for a bank to understand its risks exposures and ensure adequate management. Abu Hussain, & Al-Ajmi, (2012) emphasised that the understanding of different types of risks is necessary for effective risk management practices in banks and these institutions ought to accept only those risks which are distinctively a part of their array of services. However, Soludo et at (2007) and Sanusi (2010) believe that effective risk management promotes stability in financial institutions and the industry itself by protecting institutions against market, credit, liquidity, operational and legal risks. The protection is obtained primarily through the maintenance of an appropriate level of risk (or economic) capital by financial institutions.

a) Risk in Banking

In recent years, different investigators have extensively probed the term risk in banking (Kim and Santomero, 1988; Ghosh, 2012; Bessis, 2010; Rahman et al., 2012; Schroeck, 2002; Gallati, 2003) and yet, there is no any universal definition agreed. However, different scholars apply a different approach to define the scope of this term. Rahman et al. (2012) and Kim and Santomero (1988) described risk in banks as those risks the bank particularly exposed in its operations. The duo defined it as potential loss that arises because of unforeseen events such as adverse changes in trade and fiscal policy, unfavourable changes in foreign exchange rates or interest rates, or fall in equity prices or economic downturns.

According to Anderson (2014), Bessis (2010) and Schroeck (2002), the term risk in banks is interpreted to be adverse effects on returns due to numerous distinct sources of uncertainties. These definitions incorporated the limitation that risk in banks depends on the real-world circumstances; also predominantly involve the combination of situations in the external environment. Mtaki and Ganesh (2016) defined risk in the banking industry as the likelihood that an outcome of an event or action could bring adverse effects. The outcome can result in the imposition of limitations on the bank's ability to meet its organisation objectives, or it may result in a direct loss of earnings.

b*) Types of Risks in Banks*

Sharpe (1964), Black (1986), Markowitz (1999), Al-Tamimi and Al-Mazrooei (2007) among others classified risk into systematic and unsystematic risk. The systematic risk also referred to as un-diversifiable risk, is inherent to the entire market, not just a particular industry or stock. On the other hand, the unsystematic risk is a type of risk that is associated with individual assets, which can be reduced through modification. This type of risk is also referred to as a “residual” or “diversifiable” or “specific” risk.

However, the following literature described different types of risks that exist in banks:

- Bessis (2015) emphasises on various types of risks such as liquidity risk, market risk, credit risk, solvency risk, performance risk, operational risks, settlement risk, foreign exchange risk, interest rate risk and country risk, which are the most important types of risks in banks.
- Abu Hussain & Al-Ajmi (2012) in their review of extant literature in risk management of financial institutions found out that credit risk, foreign risk, liquidity risk, legal risk, reputation risk, residual risk, rate of return risk, regulatory risk, solvency risk, strategic risk, price (equity) risk, interest rate risk or operational risk are common risks in the banking sector.
- Santomero (1997) finds operational risk, legal risk and systematic or market risks as types of risks associated with the banking industry.
- Basel Committee (2013) in their report, classified banking risks into operational risk, credit risk and market risk.

In order to understand all these risks as identified by different scholars, a brief explanation is provided as follows:

Market Risk: This type of risk in banks according to Saunders and Cornett (2014) occurs from different sources such as instruments and equities, securities portfolios, or in shape of foreign exchange rate or interest rate. It is a type of risk associated with an adverse change in the market value caused by market movements in interest rates. For instance, this risk emerges if the assets of a bank have a significant longer maturity compare to its liabilities (Heider, Hoerova and Holthausen, 2015).

Solvency Risk: This is a risk associated with a bank inability to absorb losses caused by all other types of risks with the available capital. Iyer et al. (2016)

characterised solvency risk as a risk in which a bank cannot have adequate capital to meet maturing obligations as they come due for the full value (or to settle at some time in the future) even when the bank dispose of all its assets.

Interest Rate Risk: This type of risk arises due to an increase in interest rate. Gambacorta and Mistrulli (2014) describe interest rate risk as the risk of falling of banks earnings or capital emerging from movement or change in interest rate. Some scholars (Crouhy, Galai and Mark, 2006; Mtaki and Ganesh, 2016; Saunders and Cornett, 2014) believe that interest rate risk arises from repricing due to timing mismatch between the bank's assets and liabilities.

Liquidity Risk: Saunders and Cornett (2014) describe liquidity risk as the risk associated with a bank inability to meet its short-term financial demands or obligations. The liquidity risk, according to Drehmann and Nikolaou (2013) arises due to several reasons including the inability of the bank to convert its hard asset or security into cash without losing income or capital in the process. Also, it could be because of inadequate market disruption and an increase in the depositor's sudden demand. Kim and Santomero (1988) argued that many banks experience liquidity because they are unable to meet their anticipated cash needs, and such banks engage in borrowing more funds when required.

Foreign Exchange Risk: This is also referring to as currency risk or FX risk. It is a risk that occurs when a bank holds assets or liabilities in foreign currencies, which have significant impacts on the bank's capital or earnings due to unfavourable changes in the exchange rates (Cenedese et al., 2014). Foreign exchange risk, according to Bessis (2015), can be described as bearing losses that resulted from adverse fluctuations in the foreign exchange. These losses may occur due to the difference between the market value of particular assets or liabilities in local currency and foreign currency. Crouhy et al., 2006 emphasised that the foreign exchange risk can be categorised into either Translational Risk or Transactional Risk. The Translational Risk is referring to the accounting risk that arises due to the translation of the assets held in foreign currency, and Transactional Risk occurs when there are unfavourable changes in the exchange rate because of various transactions in foreign currencies.

Operational Risk: Sturm (2013) defines operational risk as the direct or indirect losses experienced by the banks because of its failed or inefficient internal procedures, employee errors, policies or systems failures, or negatives factors emerging from the external environment. Operational risk, according to Ames, Schuermann and Scott (2015), is any activities that can negatively affect the bank business processes. However, Dutta and Babbel (2014), Saunders and Cornett (2014) and Abu Hussain & Al-Ajmi (2012) emphasised that banks have been making efforts to reduce and control the operational risk by taking some strategic steps to invest in systems capacity building (advanced technology) and developing backup systems for any unforeseen circumstances. The banks also invest in staff capacity building by developing training programmes for their employees.

Regulatory and Legal Risk: These types of risks, according to Laeven and Levine (2009) emanate from non-fulfilment of legal and regulatory requirements by banks. The duo argued that these types of risk come from non-fulfilment or violation of regulations, procedure, legal requirements and ethical standards. Sokolov (2007) in his report on e-banking risk management practices, explained that this types of risks have the potential to create an adverse effect on the status of the bank, which may affect the growth of the bank, generate liquidity problems and lower the banks' business opportunities. He explained further that banks involved in e-banking could experience regulatory and legal risk with regard to the issues relating to customers' privacy protection disclosure. Banks may face great financial loses such as payments of damage, rescinding of contracts, civil money penalties and fines, if they failed to provide adequate privacy protections.

Credit Risk: This type of risks, according to Colquitt (2007), is the most important types of banking risk. It is defined as the risk arising from default on debt as a result of the borrower inability to meet its obligation or unwillingness to make the required payments (Schroeck, 2002; Colquitt, 2007 and Bessis, 2015). Imbierowicz and Rauch (2014) explained that this type of risk occurred in banks when the bank failed to recover the money the borrower borrowed from the bank. Colquitt (2007) and Bessis (2015) emphasised that credit risk is a threat to the bank because the bank may not be able to recover the securities and loans from the borrowers as agreed. These loans and advances are viewed as the most obvious and most prominent factors that cause credit risk in most of the banks. McNeil, Frey and Embrechts (2015) argued that credit risk can be eliminated through effective risk management that covers a detailed credit risk analysis by monitoring the most reliable loan applications, the loan portfolio, the degree of collateral and the borrowers repay ability.

Counterparty Risk: This type of risk occurred when each party of a contract failed to fulfil its contractual obligations. It is a non-performing risk of a trading party, and it is a risk to both the lender and the borrower, which both parties need to consider when evaluating a contract (Duffie and Zhu, 2011; Heider et al., 2015). This type of risk, according to Jarrow and Yu (2001), is also known as default risk in most financial contracts. However, it is a temporary banking risk compare to the typical default risk of creditors.

Technology Risk: Owojori et al. (2011) refer to this type of risk as a risk of ineffective or inadequate operating information technology in banks causes by virus attack, lack of skills personnel, network or system failure and poor system integration, which may threaten the assets of the bank, impact negatively on the bank profitability and can prevent compliance with regulations.

Commodity Price or Equity Risk: This type of risk occurs if there is an undesirable change in the market value of commodities or equity reserved by the banks (Linsmeier et al., 2002). Bessis (2015) highlighted that this risk is either systematic or unsystematic in banking operations. The systematic is linked to the price instability of portfolio’s values because of change in the full equity prices, while the unsystematic is associated with the sensitivity of portfolio’s value based on the specific characteristics of the bank.

Sovereign/Country (Political) Risk: This type of risk is associated with foreign transactions. Uhlig (2014) defines this type of risk as a risk that a foreign counterparty will default on its debt and may not be able to fulfil its financial commitments due to cross-border limitations on agreed foreign currency convertibility. Commonly connected with investing in a particular country, or providing funds to its government. It can also arise due to political instability and economic unrest or fall in the home foreign currency (Rose and Spiegel, 2010).

Off-balance Sheet Risk: Lewis (2013) emphasised that Off-Balance Sheet (OBS) risk is associated with the financial transaction of the banks. It is the probability of losses the bank is facing due to a contingent asset or debt or financial activities not on the bank’s balance sheet.

Strategic Risk: Mikes (2009) define strategic risk as the unexploited prospects and uncertainties surrounded the bank’s strategic intent and how those strategies are implemented. This type of risks, according to Van Greuning and Brajovic-Bratanovic (2009), is one of the most important types of banking risk, and it is associated with the bank’s strategic decisions. Strategic risk, according to Bessis (2010), might occur from the pursuit of an unsuccessful business plan, from making poor business decisions or inability to respond to changes in the business environment.

Reputational Risk: This type of risk, according to Fiordelisi, Soana and Schwizer (2013), is a risk of loss associated with the damages to the bank’s reputation, or destruction of shareholder’s value. It is the likelihood of losses arising from a negative view of customers and other stakeholders. This risk can have an undesirable effect on the bank's ability to develop new business or sustain existing business or customers in order to maintain continuous profitability or source of funding (Gillet, Hübner and Plunus, 2010).

Stan-Maduka (2010) in his paper on the impact of risk management practice, emphasised that in order for the banks to deal with various possible risks, it is imperative to understand the concept of risk management. Hence, the concept of risk management in banks is described in the next section.

3.2.2 What is Risk Management?

There are several definitions of risk management by different scholars. Tufano (1996) and Andersen (2006) defines risk management as a tool, which can be used to reduce, control, eliminate risks, enhance risk benefits, and avoid potential losses from projected exposures. However, some problematic risks can have an adverse effect on the quality, time, cost, and performance of the system. Hence, to minimise the probability of future loses and maximise the potential of success is the main objective of risk management. (Tufano, 1996)

Risk management, according to Ghosh (2012, p.45), is a process involving identifying, measuring, monitoring, controlling and managing of risks that may arise during the course of the bank's business and effectively dealing with them to eliminate any loses that may occur. However, Bessis (2010, p.38) argued that the aims and objectives of risk management are to control the risks. This control can only be feasible when the qualitative and quantitative assessment of risks exist. The process is to ensure a clear understanding of managing the risk so that the business strategy and objectives of the organisation can be fulfilled (Stulz, 1996). In support of this, Santomero (1997) stated four phases of the risk management process; this includes reports and standards; rules or position limits; compensations and contracts incentives; and investment strategies or guidelines.

Schroeck (2002, p.26) in his book on risk management and value creation in financial institutions defined risk management concept as a distinct process, which involves set objectives. This process is divided into the following: definition, identification and categorising of an organisation risk exposure and the source of risk (risk factors); analysis and measurement of the risk exposure; and allocation of (risk) capitals to the business as a common currency of risk.

In summary, from the definitions above, the risk could be described as the possibility or occurrence of an event, which has a negative effect on the achievement of the set objectives and the consequence or likelihood of something occurring. While the concept of risk management involves the process of controlling, reducing and eliminating of risks; identifying, measuring, monitoring the risk and risk analysis; reduce the emerging & negative occurrence; and enhances achieving the organisation strategy, objectives and goals.

3.2.3 Risk Management in Banks.

The importance of effective risk management in banks according to Arunkumar and Kotreshwar (2005) cannot be over-emphasised, as the future of banking undeniably depends on risk management dynamics. The way and manner banks address and handle their risk drives the success and failure of the banks (Baldwin, Irani and Love, 2001; Ackermann, 2008; Crotty, 2009; Berg 2010). However, risk management in banking is a mixture of procedures, policies and persons assigned to control the potential loss (Greenawalt and Sinkey, 1988; Green, 1992; Bessis, 2015).

Bessis (2015) argues that risk management comprises all the methods and tools needed for planning, measuring, monitoring, analysing and controlling various types of risks. Hence, the concept of risk management in banks was further described by Schroeck (2002) as:

> *"A strategic process that comprises both the measurement and the mitigation of risk, with the objective of minimising the risk of bankruptcy and maximising the value of a bank" (Schroeck, 2002, p.28).*

In order for the banks to prepare for eventualities, risk management is essentially a method to identify different type of uncertainties and steps needed to overcome them. Therefore, risk management includes risk planning, risk identification, risk analysis, response planning and risk control (Santomero, 1997; Raz and Michael, 2001; Schroeck, 2002).

The fact that banks are generally exposed to different types of risks in quest of their business aims, which includes operational risks, liquidity, market and credit risks, and if such risks are not effectively managed, it may lead not only to financial losses to the banks but also the survival of the bank as business entity. Therefore, in order to achieve the goals and objectives of the banking institutions in Nigeria, the Central Bank of Nigeria (CBN) set up policy guidelines for developing risk management framework for individual risk elements in banks. These policy guidelines include the following:

- All banks need to develop and device suitable and operative systems and actions to manage and control their risks in line with its risk management policies.
- Board and management of banks must take overall responsibility to ensure that acceptable policies are set up to manage and mitigate the adverse effects of all risk elements in its operation.
- It is mandatory for all banks to submit a copy of its Risk Management Framework to CBN and NDIC, highlighting assessment of each risk element and any amendments for an appraisal (Sanusi, 2010).

The CBN stated further that:

- Individual who manage risks in banks must understand various types of risk involved in their operations.
- The board and management of the banks should be accountable for their risks, and the bank risk exposure should be within limits set by the board and management.
- There must be sufficient capital available as a cushion before taking a risk
- Any risk-taking decisions should be in line with the bank's business strategies and objectives as recognised by the board and management (Sanusi, 2010).

In view of this, it can be suggested that good risk management leads to good business decision. Hence, it can be summarised that risk management in banks is a complex procedure, starting from the formulation of a framework to its definition, identification, measurement, analysing risks, and then implementing certain strategies to minimise inevitable losses.

3.2.4 Justification for Risk Management in Banks

The existing literature from many scholars (Stulz, 1984; Koehn and Santomero, 1980; Oldfield and Santomero, 1995; Smithson, Smith and Wilford, 1995; Crockett, 1996; Allen and Santomero, 1997; Santomero, 1997; Tufano, 1998; Holmström and Tirole, 2000; Hudin and Hamid, 2014; Hopkin, 2017) provides some of the important theoretical considerations to defend the acceptance of risk management practices in banks. These theories include institutional theory, financial-economic approach, stakeholder theory and agency theory:

3.2.4.1 Institutional Theory

This theory has been incorporated by various disciplines and academic studies (Keohane and Martin, 2014). The process of institutionalisation legitimises organisations by adopting formal structures and rules promulgated by actors outside of the organisation. Such rules are either formulated or imposed by government banking regulators and developed through the socialisation process within the banking industry. Another fundamental principle of the institutional theory is its inclination toward homogeneity. Since formal rules are implemented in an applicable setting and to applicable individuals and organisations and that non-adherence to such rules would merit legal and economic sanctions, institutionalisation creates uniformity and stability. Institutionalisation also consolidates best practices and produces new norms based on norms previously institutionalised (Thornton, Ocasio and Lounsbury, 2012).

The institutional theory is a helpful paradigm in risk management. The norms and practices, which are currently observed today, are based on practices and norms institutionalised into national laws and international agreements such as the Basel Accord. The supervision on whether the provisions of such formal rules are performed by actors also considered as institutions such as government authorities and supranational governing bodies (Wolke, 2017).

In as much as the institutional theory provides the rationale for risk management practices, it can also serve as a framework for identifying the causes of risk management failures. When banks suffer rather than benefit from complying with domestic banking laws and the Basel Accord, this is likely a result of one or more of these factors:

- ✓ Failure of internal mechanisms of banks to implement the prescriptions of relevant rules.
- ✓ The provisions of banking laws and international norms are not compatible with the current practices, capabilities and resources of banks, and
- ✓ Failure of bank laws to keep up with current trends in the industry.

All these causes of risk management can be addressed institutionally (Kaplan and Mikes, 2012).

3.2.4.2 Financial Economics Approach:

Financial economics is the branch of economics that focuses on real variables to guide institutions in making decisions under situations of uncertainty. An econometric model is devised to predict future scenario with present trends. The application of financial-economic in risk management practices is largely a result of the work of Modigliani and Miller (1958), which states that conditions for the irrelevance of financial structure for corporate value. It is the most widely used theory, although evidence to support the predictive power of this theory to risk management is lacking (Klimczak, 2007). This theory maintains that the presence of a risk management system within banks leads to higher debt capacity (Modigliani and Miller, 1963), progressive tax rates, lower expected costs of bankruptcy (Smith and Stulz, 1985), securing internal financing (Froot, Scharfstein and Stein, 1993), information asymmetries (Geczy, Minton and Schrand, 1997), and comparative advantage in information (Stulz, 1996) as cited in Klimczak (2007). Studies have already pointed out how risk management reduces corporate variability (Tufano, 1996). However, the other hypotheses of the financial economics approach related to risk management have not been empirically supported. Klimczak (2007) mentioned that Tufano (1996) found no empirical support for the financial hypotheses underlying risk management and pointed to the effect of managerial preferences instead. Moreover, this approach also stipulates that hedging lead to the lower volatility of cash flow and therefore, lower volatility of firm value. However, studies found positive proof on other hypotheses such as higher debt capacity hypothesis (Nguyen and Faff, 2002), internal financing hypothesis (Guay, 1999), financial distress hypothesis (Judge, 2006) and tax hypothesis (Nance, Smith & Smithson, 1993).

3.2.4.3 Stakeholder Theory:

This theory, according to Freeman (1984), views risk management as a necessary tool to uphold the interest of different stakeholders. The theory places a premium on stakeholder interest when devising corporate policies, including risk management practices. The main assumption of this theory is that factors such as expected tax payments, probability of financial distress and business failure or bankruptcy are detrimental to the interest of stakeholders and that failure to manage these risks effectively will erode the trust of stakeholders. The erosion of trust will lead to a reduction in sales and capitalisation (due to some stockholders pulling out of the company).

Shareholders, for examples, are heavily sensitive to corporate failures, either real or speculative as it reduces the value of their stocks. Shareholders, like all stakeholders, intend to maximise their gains and logically will demand that firms operate efficiently to maintain and even increase sales. As such, anticipated losses due to vulnerability in the market and some volatile corporate features must be foreseen and handled through an effective risk management system. Another group of stakeholders is the consumers. Companies who have already established brand identity and loyalty still have to institutionalise an effective risk management system since consumer trust, regardless of how strong it is, is sensitive to market condition and individual household capacity. Consumers who have long trusted a particular brand are still likely to reduce their volume of purchase due to economic stress and other factors. This will reduce the revenue of the company, and in order to avoid disastrous impact, firms must have recognised beforehand the possibility of this scenario from happening and devise appropriate risk management model to prevent the risk from materialising or minimising and its impact on the company once it materialises (Freeman et al. 2012)

3.2.4.4 Agency Theory:

Agency theory can be argued to be the opposite of institutional theory. While the latter focuses on formal rules and structures influencing the practices and behaviour of banks on risk management, the former stipulates the opposite that actors involved in bank operations can have a potent role in defining future rules on risk management that will be implemented internally within the banks or internationally through the codification of international agreements (Ballwieser et al., 2012).

The central focus of this theory is on managerial motivations. It argues that it is often that bank managers differ in views and analyses with shareholders and other stakeholders (including the debtors) insofar as corporate planning is concerned that includes the identification of the best risk management system. If this incompatibility of interest is not met, the firm will be taking a substantial risk, which may cause its disadvantages (Cuevas-Rodriguez et al., 2012).

Agency theory has been employed by studies, which found empirical support for hedging as an effective tool to reconcile the conflicting interest of bank managers, shareholders and bank debtors. It is also important to note that the conflict in interest is also a result of the asymmetrical earning distribution, which puts the different players in an unfair playing field, which later leads to conflict. In order to address this conflict, banks devise plans to gather the sentiments and financial preferences and positions of all the stakeholders and undertake a comprehensive analysis on how can these be reconciled with the analyses of the bank (Dunham, 2012). One means to do this is giving the discussion on risk management significant attention during the annual shareholders' meeting and in different avenues for the other stakeholders.

3.2.4.5 Theory Guiding The Research:

The researcher considered four important theories (institutional theory, financial-economic approach theory, stakeholder theory and agency theory) to justify the acceptance of risk management practices in banks. However, it is the financial economic approach theory that primarily motivated and guided this research, not just because it is one of the most widely used theories, but also because it gives us a better insight into why banks need to adopt risk measurement and risk management processes and procedures in order to guarantee their risk-adjusted return in their business. In most cases, the focus is often on risk management practices in the banking industry to manage an institution's exposure to losses or risk and protect the value of its assets, as well as the core concept of banking risk management to ensure the profitability and safety of the banking industry. However, the financial economic approach theory uses an econometric model to predict future consequences in relation to present trends in order to guide institutions in making decisions under uncertainty circumstances. Therefore, the theory maintains that the presence of a risk management system within banks leads to lower expected costs of bankruptcy, progressive tax rates and comparative advantage in information. This approach also stipulates that hedging leads to lower volatility of cash flow and, therefore, lower volatility of firm value. For these reasons, the financial economic approach is deemed the most appropriate for the purposes of the Thesis.

3.2.5. Risk Management Issues in Commercial Banks in Nigeria.

Every business has its unique way of handling risk management issues that they are facing them. Often, managers seek the advice of specialists or experts to resolve the issues as fast as possible without compromising the quality of goods or services they are providing to their clients (Schroeck, 2002; Saunders and Cornett, 2014). Commercial banks in Nigeria are facing different risk management issues, which can be people related, policy-related, and resources related (Soludo, 2004; Adeleye, Annansingh and Nunes, 2004). People related risk management issues are those concerns with the workforce, particularly human behaviour, which might include corporate governance; nepotism by senior management; inexperience risk managers; lack of commitment; conduct and unethical employee activities. Policy related risk management issues can be associated with lack of robust risk management framework; non–compliance with laid down risk management policies; regulatory oversight; ineffective risk management framework; poor and unfavourable economic policies; corrupt and delayed legal system; and strategic risk management. While the resources related risk management issues come from effects of macroeconomic environment; rapid technological advancement; data availability, quality, and analytics; knowledge gap; inadequate investment in information technology infrastructure; weak governmental support; information sharing; credit culture; and liquidity. Thus, the significant factors to consider in managing business-related risks are people concerned, existing policies, and adequacy of resources (Soludo, 2004; Best, De Valence and Langston, 2007).

3.2.5.1. People Related Risk Management Issues

The utmost risk management issues that most banks in Nigeria are facing are concern with people-related factors. For example, the demand for sound corporate governance will depend on how effective the corporate governance committee of banks do their job (Williamson, 1988; Wood, 2000). Their focus is more on the banks' financial risks such as credit, liquidity or market risks, and operational risks. At the start of the financial crisis, many reports emphasised the risk governance in banks such as the reports conducted by the Basel Committee, Group of Thirty, Institute of International Finance, and others that supervise banking (Tsingou, 2007, p.90; Kirkpatrick, 2009). They identified several good practices and offered recommendations that would sustain further improvements in the same manner that they have exposed certain risk governance weaknesses associated with the roles and responsibilities of the corporate board of directors, the business-wide risk management purpose, and the individual assessment of risk governance.

Due to lack of proper checks and balances by the board in their functions, excessive risk-taking and control were able to infiltrate many of the banks, specifically in Nigeria. According to Central Bank of Nigeria (CBN), aside from developing or intensifying current guidance or regulation, supervisory expectations should be raised for the risk management function and a constant engagement with the board and management in order to assess the accuracy and effectiveness of the information given to the board that will allow effective fulfilment of their responsibilities. More explicitly, the CBN emphasised on the effectiveness of the bank's risk governance framework, particularly their risk culture to achieve sound corporate governance through the economic cycle. Also, managers need to strengthen their risk governance frameworks to contain an incorporated view through every aspect of the framework (Sanusi, 2010; Organization for Economic Cooperation and Development, 2014). Thus, risk governance frameworks will not be effective enough if the risk managers are inexperienced. However, risk managers in commercial banks in Nigeria need to engage in continuous learning in order to gain confidence in supporting innovations within the company in term of risk management issues.

However, in order to minimise banks' losses due to inadequate risk management in commercial banks in Nigeria, it is an expectation that experienced managers should be exemplary in the most significant part of banking operations. As a leader, it is highly necessary to perform periodic and regular loan reviews to identify weaknesses integral to the loans facilities given to their customers, which may allow speedy intervention or corrective measure to avoid and/or minimise losses. Managers are advised to pin necessary tools that would establish dependable internal rating systems, which allows identification of risky credit portfolios, and allocate for risk-weighted capital ratio (Spekman and Davies, 2004; Sanusi, 2010). It is possible for any customer or bank staff to fabricate information or provide false documents for fraudulent purposes intentionally. In the end, experience determines how prepared banks were to meet the challenges of operational risk during the post-consolidation period especially at the time many forgers provide and acquire value on checks with similar characters with the real ones issued to clients. Several banks in Nigeria have failed, and others are distressed due to managers' poor attitude towards risk. Understanding the responsibility to recognise major risks and resources will enable early mitigation, which is often a step for strategic risk management (Owojori, Akintoye and Adidu, 2011).

Another aspect senior manager in commercial banks in Nigeria is well known for, which also affect risk management practices is the issue of nepotism. Corkindale (2008), in her interview, said that nepotism holds an organisation back from being as possibly creative as it might be. Managers may become a target of discrimination claims when others knew that a person had been hired or promoted due to friendship or family relationship rather than hiring or promoting a more qualified employee on merit. Exhibiting favouritism to an individual's family or friend can cause other employees to complain regarding special treatment and eventually lower employee's morale and productivity. In addition, employees experiencing despotism are more likely to be more focused on complaining rather than satisfying the customers and concentrating on the given task. This experience slowly affects the smooth flow of a company's operation since the employees are feeling unappreciated and unrecognised. They often lose the motivation to attain the company's goals and objectives to manage risks (Corkindale, 2008).

3.2.5.2. Policy Related Risk Management Issues

Resolving issues associated with people is more likely to be resolvable when combined with a robust risk management framework (O'Donnell, 2005). Greater focus on robust risk management frameworks is placed as external focused are placed on better capital adequacy, consumer protection, liquidity, and transparency. The banking crisis has revealed blatant deficits in strategic risk management. As a result, a change in focus of the preliminary business model is needed, but this time; it is more customers driven and less product profitability driven. Regulatory oversight and management point out that the gaps lie on enhanced frameworks and guidelines (O'Donnell, 2005; Freixas, 2010). Financial services firms, especially banks, are under increasing pressure due to managing regulatory compliance and related risks (Shrieves and Dahl, 1992; Kirkpatrick, 2009). Attention should be given to risk management issues and its mitigation both at business and service levels. In order to comply with the existing regulatory requirements, banks, especially in Nigeria need to increase their governance in conformity with the new compliance requirements, improve the quality of information and optimise the gathering of new risk data (Gomes, 2014).

In Nigeria, determined and exhaustive regulators control banking industries. Due to these dynamics, financial institutions are getting a limited yet active evaluation from the regulators (Abiola, 2009; Idolor, 2010). Insufficient time to go over with the flow of the institution makes it more challenging for banks to find their way through the deficiencies that might eventually cause them many failures. Banks' business is to deal with risks associated with managing deposits, lending, and trading preferences. Too baggy lending practices and stroppy risk tolerance could mean losses. Nigeria bank asset management poses a substantial challenge in the contemporary environment. Credit is such a major asset that when failed the foundation of these financial institutions will definitely go weak. The Nigerian government through CBN in its full dedication on sanitising their banks protects the depositors and guarantees that no banks would be allowed to fail (Soludo, 2004; Soyemi, Ogunleye and Ashogbon, 2014). Their objective is to reinforce the financial system and stabilise the financial sector while inducing several adjustments in the executive management of certain banks. This, according to them, would be a strategic step in cleansing the banking industry.

Banking failures in Nigeria is due to high risk being taken by the banks. Several banks took more risks than its capital could allow, while others are prudent to the extent that they could successfully handle the crisis (Soludo, 2004). The Nigerian Central Bank, in order to help, provide necessary measures that would secure the entire banking industry and would stabilise the condition of banking, which will strengthen the public's confidence in them. Therefore, the CBN launched thirteen (13) points' plan that will reduce excessive banking industry's establishment. The object of the plan is to combine the banks via acquisition and mergers and to restore the sanity of the financial industry (Dugguh and Diggi, 2015; Njogo, 2012).

While policy-related issues are being addressed in the Nigeria banking industry, ethics sometimes is being compromised. It should be remembered that ethics is not crucial just because the law says so, but because business and ethics are partners in bringing out the best outcomes. On the other hand, building the impression that ethics is no longer important can be damaging to the firm and its prospects (Harvard Law School Forum on Corporate Governance and Financial Regulation, 2011). In general, the bank's quality is demarcated by the totality of its risk-taking decisions. Risks are the reason why banks need to have a sound credit culture. Risks deepened as new and improved financial products were developed, transaction volume flowed, and technology delivered real-time information and enabled the completion of transactions. Credit culture creates the foundation for taking the risk. The purpose of which is to provide and ensure quality and show integrity within their portfolio. History upholds that a sound credit culture can be achieved when the managers themselves lead cooperation and engagement because they are the one setting the actions, directions, tone, and words of the company. Credit system can be destabilised when credit disciplines and quality standards are compromised (Mueller, 1993; Kolapo, Ayeni and Oke, 2012).

3.2.5.3. Resources Related Risk Management Issues

In order to ensure that people and plan work effectively, it is important to consider those resources to execute the plan. Several resources related to risk management issues might hinder or delay the execution of the plan. Among these are the environment, technology, data, information sharing, culture, and liquidity (Ruozi and Ferrari, 2013). The environment, specifically a macroeconomic environment, can affect the banking industry. Banks' failure and profitability including their internal and external determinants depend upon the macro, and microeconomic factors available for the banking industry since the legal, macroeconomic, and social environment constantly changes (Anbar and Alper, 2011; Curak, Poposki and Pepur, 2012). Considering that the bank's profitability depends on both the internal determinants such as the asset, capital, cost, liquidity ratio, risk management, and size and the external determinants, which are associated with the economic, legal, and social environment that influence the overall banking industry performance. However, certain macroeconomic factors can also influence the banking industry at some point. This includes economic growth, inflation, and interest rates of the market.

Research has proven that inflation relates positively with bank performance while market interest rates adversely affecting it (Athanasoglou, Brissimis and Delis, 2008). Nigeria banking industries are operating on various economic, legal, and social environments; hence, most banks in Nigeria are having a series of transformations (Ayodele and Alabi, 2014). One of which is the increase in the capital base, which offers more funds that could be channelled to credit for profitable ventures. Aside from the fact that Nigerian banks are challenged to sustain the growth of their system and to comply with the international standard of operation, which has led them to a globalized business environment (Athanasoglou, Brissimis and Delis, 2008; Owoputi, Kayode and Adeyefa, 2014; Olamide, Uwalomwa and Ranti. 2015).

Rapid technological advancement has also become a risk management issue that faced with commercial banks in Nigeria, especially in some banks where their risk managers cannot go with the flow or lack the necessary skill to control the rapid technological issues. Technological advancement is necessary for enabling reports to be automated, centralised, and systematised (Spekman and Davies, 2004). These reports are referred to as data. Capturing the right data is crucial in the banking industry. Access to these data means a lot to business intelligence. Insufficient data makes it difficult for banks to achieve their objective. The solution to the problem is to have the bank’s databases separated (Lau, Chow and Liu, 2004; Crié and Micheaux, 2006). This practice eventually would deliver operational efficiency for the business. Limitations on data availability affect the holistic management of individual banks that switched into economic crisis and emerging liquidity. With the use of different and adequate technologies, data capturing, analysing, reporting would be achievable in order to sustain the bank's capability to perform well. Information gathered from these practices involves cooperation, supreme governance and infrastructure, risk data accumulation competencies, risk reporting competencies, and supervisory reviews and tools. The greatest challenge is to gather the necessary information that would address all the risk management issues, whether it is people-related, policy-related, or resources-related (Svatá and Fleischmann, 2011; Stewart, 2014).

In summary, three significant factors to consider in managing business-related risks are people concerned, existing policies, and adequacy of resources. Resolving one of these groups also calls for the resolution of the other two groups since people cannot go without resources and policies within the business. Any weaknesses among these three factors will mean risks for the business. Banks, just like any other businesses, are not exempted with risks. The more depositors and partners they accumulate, the more the banks become prone to risks associated with the transactions they acquire. Nigeria is just one of those countries that undergone transformations, most especially in the risk management area to save its banking industry from greater damages and loss (Okike, 2007; Rufai, 2013)

3.2.6. Risk Management Practices and Basel Accords

Banks serve as the skeleton of modern economies. It serves as the conduits between the saving and investing public on the one hand and persons, businesses and even governments in need of funds for different purposes on the other (McLeay, Radia and Thomas, 2014). Because of its involvement in lending and borrowing, banks face different risks. These risks emerge from credit transactions (credit risk), market conditions (market risk), organizational capability of the banks (operational risk), failure of one financial institution, which could trigger a chain reaction in the industry (systemic risk), innovations (business risk), substantial shift in the economy or political environment (strategic risk) or bank failure leading to damages on the company image (reputational risk) (Goyal, 2014). Since banks rely on depositors and subsequent and activities for capital, it is imperative that these risks be managed effectively in order to prevent losses that can jeopardise the trust and confidence of the customers.

Risk management practices had been merely guided by internal norms and procedures of banks and industry best practices until the promulgation of the Basel Capital Accord in 1988. This international agreement was designed by Central Banks and government monetary institutions through the Basel Committee on Banking Supervision (BCBS), which essentially consolidated existing best practices of risk identification and management and introduced improvements to address bank vulnerabilities. The objectives of the accord are: to attain stability in the international banking system; and build a fair basis for competition among international banks (Dionne 2013). The agreement was initially designed for internationally active banks; however, smaller banks consequently adopted the letter and spirit of the Basel agreement.

Since 1988, the accord has already undergone three changes. Each of the two succeeding versions is an improvement of the previous version. The three versions differ in terms of pillars, risks being targeted and the risk management approach. Basel I (the agreement that was promulgated in 1988) only had a minimum capital requirement as its pillar, with credit risk being the type of risk being targeted and the standard approach of measurement and capital calculation as the risk management approach (BCBS 1998). For Basel II (released in 2003), supervisory role and review and market disclosure were included as pillars in addition to minimum capital requirement. Two other risks were also covered in addition to credit risk-market risk and operational risk. In addition to this, Basel II also allows banks to use multiple approaches in measuring risks and calculating capital (BCBS 2003). Lastly, Basel III basically further strengthens the features of the previous versions in the following areas: enhanced capital requirement; introduction of liquidity standards; improvements in the provisioning norms; and better disclosures (BCBS 2011) (Rodriguez, 2003; Adeleye, Annansingh and Nunes, 2004; BCBS, 2011; Fei, Fuertes and Kalotychou, 2012).

3.2.6.1 Risk Management and Compliance with Basel I

As already pointed above, the Basel Accord is merely a consolidation of banking norms drawn from the best practices in the industry and analyses of prior vulnerabilities. As such, governments are not required to comply with its provisions. However, because of the acceptability of the provisions due to its compatibility with the resources and capacity of various banks, central banks have found it prudent to accept and implement the provisions of the accord in their operation (Wright, Sheedy and Magee, 2016). It was initially intended for banks that operate in international transactions but was consequently adopted by domestic banks. The accord has already undergone two revisions, with the subsequent version being an improvement of the preceding version. For Basel I, the risk management practices of banks focused on credit risks and meeting the minimum Capital Risk-Adjusted Ratio (CRAR) of 8 per cent (Karacadag and Taylor, 2000).

The two norms prescribed by Basel I are related. Meeting the 8-per cent minimum CRAR protects banks from acquiring a level of credit risk that could reduce its solvency. The rationale for the need to maintain a certain level of capital is to give banks a certain level of leverage in case an identified credit risk materialises such as when a debtor defaults on their loans (Tanaka, 2003). Based on these guidelines, banks should first identify their Tier I and Tier II capital and determine the risk weight for each capital. After this, they will have to compute for CRAR to determine whether it meets the required percentage.

Tier I capital pertains to bank assets that are considered as core capital (Nguyen, 2014). Four assets can be categorised in this level, namely: paid-up capital, statutory reserves, disclosed free reserves and capital reserves representing surplus due to sale proceeds of assets. Paid-up capital refers to the amount of capital received by banks or any company from investors in exchange for shares. Statutory reserves are liquid assets that banks and firms must maintain to remain solvent and gain partial safeguard from possible losses. It also reduces the need for insurance. Disclosed free reserves pertain to the amount of reserves that the bank may still lend to borrowers.

On the other hand, Tier II capital refers to assets that are considered supplementary to the core capital. These include undisclosed reserves and cumulative perpetual preference shares, revaluation reserves and general provisions and loss reserves. Undisclosed reserves, as the term implies, pertain to assets that are not published in public documents but are nevertheless real assets. Cumulative perpetual preference shares refer to the totality of shares which do not have a date of maturity. Revaluation reserves refer to the new insertion in the book after a revaluation was performed on the assets. Lastly, loss reserves refer to the liability of insurers from future claims (Demirguc-Kunt, Detragiache and Merrouche, 2013).
After the bank has identified its Tier I and Tier II capital, it needs to assign weights to each of this capital. A portfolio approach was used for the allocation of weights, which came in four buckets - 0 per cent, 20 per cent, 50 per cent and 100 per cent - depending on the classification of the debtor. Conventionally, the bank holdings of government-owned assets such as treasury bills and bonds have no capital requirement and therefore, are given the weight of 0 per cent. On the other hand, claims on banks are given 20 per cent weight while commercial loans are given the full 100 per cent. Basel I had a number of amendments, with the most important being the removal from the credit risk framework (and therefore, given capital charges) of trading positions in bonds, equities, foreign exchange and commodities. The amendment was introduced in the hope that the goals of the accord maintaining stability in the international banking system and establishing and maintaining fair competition will be better achieved (Cannata, Casellina and Guidi, 2012).

Prior to the introduction of the subsequent versions of the accord, more than 190 countries had claimed to have adhered to the provisions of Basel I. Countries have similar approaches in incorporating the provisions of the accord. This is through the enactment of domestic laws. In India, amendments were made on the 1949 Banking Regulation Act to reflect the provisions of the accord. The Reserve Bank of India even increased the minimum CRAR from 8 per cent to 9 per cent. The adoption of the accord provided the banking system of India with greater discipline in managing capital and a benchmark for appraisal of market participants (Banerjee, 2012). However, despite the effectiveness of Basel I in reforming the banking industry, particularly in terms of the capacity for risk management, a number of shortcomings were noted which eventually led to the codification of Basel II. These shortcomings emanate from the limited differentiation among the degrees of risk, which may lead to incorrect calculation of CRAR. Risk management also excludes other risks outside of credit risks.

3.2.6.2 Risk Management Practices under Basel II

Because of the limited coverage of Basel I; BCBC introduced the International Convergence of Capital Measurement and Capital Standards: A Revised Framework on June 26, 2004, popularly known as Basel II. The new version of the accord covered market and operational risks in addition to credit risks. Basel II prescribed three guidelines. First, it retained the minimum capital requirement provision of Basel I but included market and operational risks. Second, it prescribed for the supervisory review of central banks on the capital adequacy and internal risk management processes of banks within its jurisdiction. Third, it prescribed public disclosure to develop market discipline through sound banking practices (Hall 2012).

To address the limited differentiation of the degree of risks in the provisions of Basel I (which merely used the portfolio approach), Basel II prescribed a set of different approaches for each type of risk. For credit risks, three approaches were used. The first one is the standardised approach, which allocates fixed weight to assets depending on its degree of risk. The range of the weights is from 0 per cent to 150 per cent. Compared with the portfolio approach, the standard approach increased the risk sensitivity of banks by considering an expanded range of collateral, guarantees and credit derivatives. The second approach is the foundation internal rating-based approach, which used the internal rating of banks instead of the rating system of external agencies. It considers the probability of default, loss given default, exposure at default and maturity in the calculation of risk. Lastly, Basel II also prescribed as an option to the advanced internal rating-based approach, which is an improvement of the foundation IRB approach. It calculates the loss given default, exposure at default and maturity based on historical data (Bluhm, Overbeck and Wagner, 2016).

With regard to operational risks, Basel II prescribed basic indicator approach (banks must hold capital for operational risk equal to the average over the previous three years of a fixed percentage (denoted as alpha) of positive annual gross income), standardised approach (banking activities are divided into eight business lines, with the capital charge for each line computed by multiplying the gross income by the weight assigned to each line; the sum of all business line should be equal to the gross income of the bank), alternative standardized approach (the only difference with the standard approach is that the business lines of retail and commercial banking are computed differently) and advanced measurement approach (uses advanced statistical assumptions and tools) (McNeil, Frey and Embrechts, 2015). As for the market risks, Basel II prescribed the following methodologies: standardized approach (can either be maturity or duration-based) and internal risk management models approach (the internal mechanisms of banks must measure the value of risks (VaR) based on 5 years data on position to position basis) (McAleer, Jiménez-Martín and Pérez-Amaral, 2013).

Despite the vast improvement Basel II had created in the banking community, several challenges were noted, especially in the implementation of the accord in the United States. Banks in the US had mentioned the cost of implementation, competitive equity, and the treatment of operational risk. The limitations of Basel II were particularly more impactful in the United States when the 2008 financial crisis occurred. These observations were also shared by other governments (Das and Sy, 2012). As a result, BCBS deliberated anew on the state of implementation of the accord and in December 2010 released new guidelines to be known as Basel III.

3.2.6.3 Risk Management Practices under Basel III

Under Basel III, banks face stricter capital requirement. The capital requirement for Tier I capital was raised from 4 to 6 per cent starting in 2015. Additionally, Basel III also prescribes the need for banks to maintain a capital conservation buffer equal to 2.5 per cent. This will serve as fund resource for banks during times of stress such as recession and financial crisis. This new provision complies with one of the key recommendations of the Committee in the December 2009 Consultative Document “Strengthening the resilience of the banking sector” (Angelini et al., 2015). Another relevant improvement in Basel III compared to the previous version of the accord is that it also prescribes that banks should also maintain a counter-cyclical buffer, which can vary from 0 to 2.5 per cent. This mechanism protects national economies from the accumulation of debts. If the level of debts is increasing at a faster rate than GDP, bank regulators are given the power to increase the capital requirement of banks (Grosse and Schumann, 2014).

Moreover, under Basel III, banks are also advised to maintain an ideal leverage ratio and liquidity. The leverage ratio refers to the ratio of Tier I capital to the total asset. Basel III prescribes that Tier I capital must not be less than 3 per cent of the total asset of banks even in the absence of risk-weighting (Dermine, 2015). As for liquidity, the accord introduced the liquidity coverage ratio. It is calculated by computing the “available amount of stable funding” divided by its “required amount of stable funding. The ratio should not be less than 100 per cent (Hartlage, 2012).

3.2.7 Risk management procedures

Scholars from different perspectives have viewed risk management procedures in different ways (Ghosh, 2012). A risk management structure, according to Hopkin (2017), involves the process, scope, procedures and the system to manage the risks responsibilities and the individual roles associated with managing the risk. Risk management framework encompasses the procedures of managing the risk and risk management policies, which cover risk acceptance, identification, monitoring, measurement, control, and reporting (Bromiley et al., 2015).

The Enterprise-wide Risk Management Guideline according to Partnership BC (2005) describes the process and the model on how to manage risk based on the eight (8) sequential steps: establish the context; identify the risk; analyse the risk; evaluate the risk; risk mitigation strategy development; review and monitor risk mitigation strategy; risk enumeration; consulting and risk communication.

Both the International Organization for Standardization (2008) and Standards Australia and Standards New Zealand (2004) described the model on risk management procedures in a similar way to Enterprise-wide Risk Management Guideline but in five (5) steps as follows: risks identification; risks analysis and evaluation; treatment of risks; risks consultation and communication; risks monitoring and controlling.
The risk management procedure presented by both Standards Australia and Standards New Zealand (2004) and Berg (2010) is shown in figure 3.2.

Figure 3.2 – Risk management procedures

The process of risk management comprises of seven related sub-processes, as shown below:

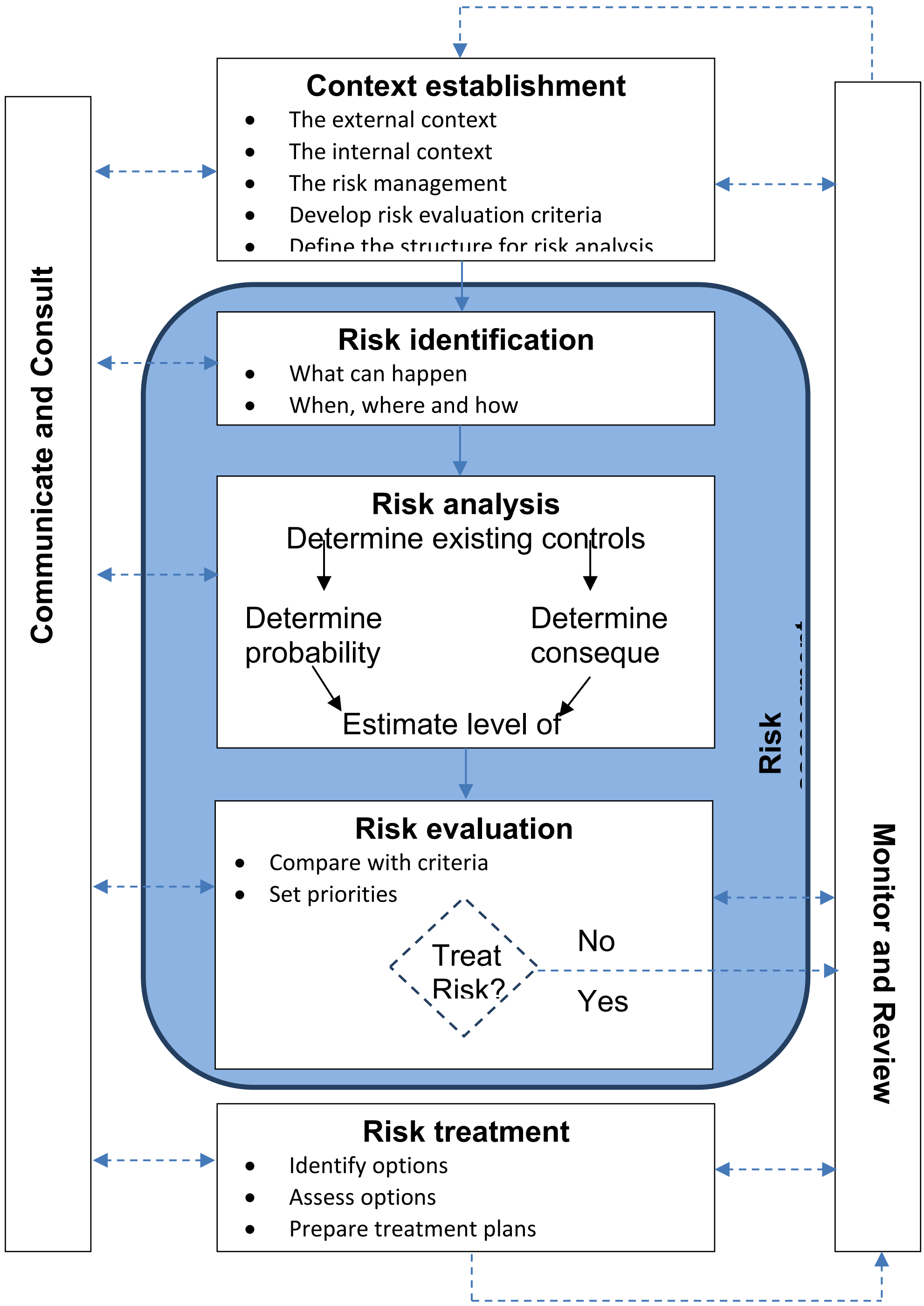


Figure Source: Standards Australia and New Zealand 2004

3.2.7.1 Communication and Consultation

Communication and consultation aim to be able to identify that individual who should involve in the assessment of risks, which include risk identification, risk evaluation and analysis, as well as those who should involve in the risk treatment, reviewing and risk monitoring. This set of people need to have knowledge of the decision-making process and the reason why certain actions related to decision-making is essential. (Standards Australia and Standards New Zealand, 2004).

3.2.7.2 Context Establishment

An organisation defines the factors to be considered in managing the risks by establishing the context (McNeil et al., (2015). By so doing, the organisation sets the risk criteria and defines the scope for the remaining risk management process. However, the above framework provides five (5) stages procedure as a guideline to help in the context establishment that an organisation can use for risk identification:

- The internal context – Internal environment where the organisation seeks for the achievement of its strategic objectives.
- The external context – External environment in which the organisation seeks the achievement of its strategic objectives.
- Risk management context – in this section, the organisation defines its scope, strategic objectives and the strategies to achieve them. It also identifies the area where risk management has to be established.
- Risk evaluation criteria development – The organisation develops the criteria needed for evaluating the importance of risk.
- Defining the structure of risk analysis – the structure highlights the depth and accuracy of risks identification that is significant (Standards Australia and Standards New Zealand, 2004).

3.2.7.3 Identifying the Risk

Identifying the risk is the elementary stage of risk management (Soyemi et al., 2014). Risk identification exposes and determines highly occurring risks and another potential risk that occur frequently. At this stage, the examination of risk takes place by considering the activities of the organisation in all aspects and attempt to introduce different exposure that may come up in the future due to change in environment. Identifying the right risk will ensure the effectiveness of managing the risk (Tcankova, 2002).

3.2.7.4 Analysing the Risk

This involves identification and assessment of potential risk that may affect the success of a project or achieving the goal. The effect of risk exposure needs to be carefully examined under four features (quality, time, people (resource) and benefit) (Cerutti, 2015). The risk analysis stage regulates the consequences, probability of a negative effect and estimates the level of risk by putting into consideration both the probabilities and the consequences of the risk. (Standards Australia and Standards New Zealand, 2004).

3.2.7.5 Evaluating the Risk

Risk evaluation deals with assessing the likelihood and impact of potential risks taking into consideration “risk appetite” or risk tolerance (the level of risk the organisation is prepared to seek, accept or tolerate) and any other factors outside the immediate scope under investigation, and decide upon unacceptable and acceptable risk (Slovic, 2016). This stage deals with deciding on the acceptability of risk or if the risk needs to be treated. However, evaluation of risk provides suitable material in order to make good decision (Vrijling et al., 1995).

3.2.7.6 Treating the Risk

According to Goetz et al. (2016), risk treatment deals with developing, choosing and applying a range of options for mitigating the risk. The above framework presented the certain options for treating the risk: Avoiding the risk; changing the probability of the risk occurring; changing the consequence, sharing and retaining the risk - (retaining the residual risk if it falls within the level of acceptance).

3.2.7.7 Risk Monitoring and Reviewing

McNeil et al. (2015) emphasised that one of the integral and essential stages in the risk management process is monitoring and review. The risk cycle is continuous and in order to ensure effective risk management process in both operation and design, such that changing the environment will not affect the risk priorities, the effectiveness of the risk controls must be adequately monitored and carry out a review on an annual basis. Over time, new risks may emerge, or existing risk may wane. (Tcankova, 2002).

Based on the theoretical reviews in both chapter 2 and chapter 3, the figure 3.3 below serve as a research framework, which forms the basis for the empirical discussion and research in the next chapters, which is chapter four and five.

Figure 3.3 shows that the existing literature on risk management practices is faced with three essential issues. One, the existing literature essentially explore risk management practices in banks in other countries, but not Nigeria. The limited study on Nigerian banks – such as Adeusi et al. (2014), Olamide, Uwalomwa & Ranti, (2015) and Owojori, Akintoye & Adidu (2011) – majorly focus on regulatory banks or general banking industry. There appears to be a death of study on the commercial banking sector despite being the mainstay of the Nigerian economy. Two, the existing studies majorly focus on factors relating to credit risk to the detriment of operational risk factors. However, operational risk is an essential risk factor, especially in commercial banks, where the banks do not have major control over their customers' operations (Cruz, Peters & Shevchenko, 2015). Three, evidence abounds that existing studies on risk management often omit some control variables, such as the influence of the board and commitment of management staff in the risk management process (Sharifi, Haldar & Rao, 2016). Such omission biases the result of the finding.

The issues galvanise the objectives of this study, and which is to:

- Identify critical factors of risk management practices
- Evaluate their impact on risk management practices in Nigeria
- Identify factors driving risk management practices in Nigeria

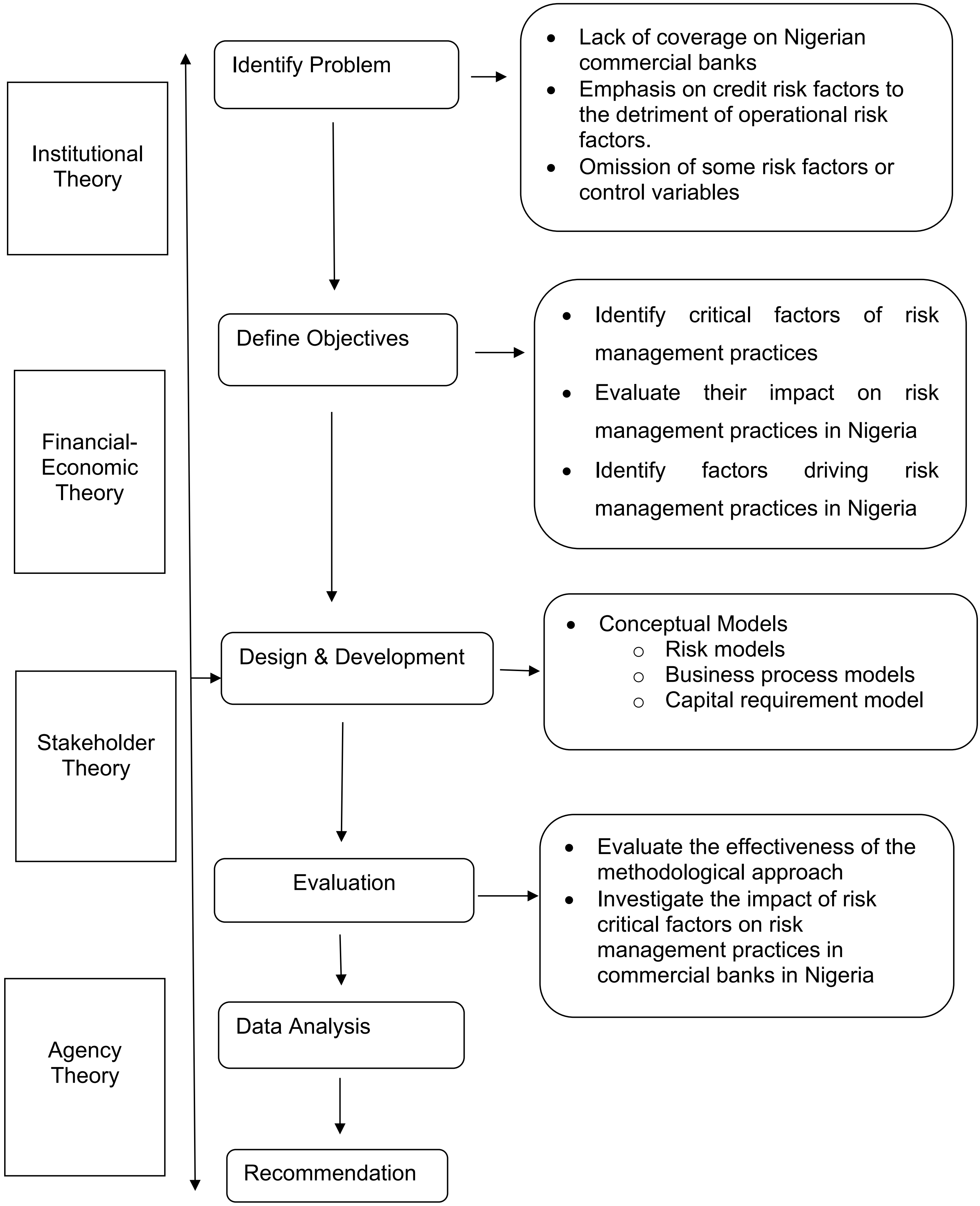
However, in achieving the study objectives, the study will utilised various theories and models identified in the existing literature. Although there is a proliferation of theories, this study focused on four theory: institutional theory, financial-economic theory, stakeholder theory and agency theory. The rationales for the selection of these theories are many folds. One, banking is a financial institution that requires the regulatory framework of an agency. Two, there are various stakeholders, notably, the customers and regulatory authority in Nigeria. Three, there is a principal-agency dichotomy at play, with the management and staff serving as the agents of both board and deposit customers.

On the other hand, various models will be utilised, and this includes risk models to evaluate the risk in commercial banks, business process models to explore the business process of banks and their customers, as well as the capital requirement model to investigate the capital requirement of banks and the effect on the risk and businesses of their customers. While the study utilised a methodology, the study will evaluate the effectiveness of the methodological approach and investigate the impact of critical risk factors on risk management practices in commercial banks in Nigeria. Furthermore, the data collected will be analyses using various techniques and justification will be provided for the techniques used. In addition, various recommendations would be made based on the findings of the research.

Figure 3.3 below shows the overview of the research framework

Figure 3.3 -Overview of the Research Framework

Figure Source: Self designed



3.3 Conclusion

This chapter discussed in detail the Nigerian banking industry: the definitions, functions and roles of banks, evolution of commercial banking in Nigeria and risk management. This discussion was facilitated by highlighting different themes under risk management, which include types of risks in banking, risk management in banks and its justification, risk management issues in commercial banks in Nigeria, risk management procedures, and Basel accords.

Having identified the gap in the literature in section 2.4.1, the study deployed a mixed-method approach involving an interview and a questionnaire to collect relevant data from randomly selected commercial banks in Nigeria. The data collected from the interviews was exclusively used to answer research questions 1 and 2, to identify the major risks facing the commercial banks in Nigeria, and the risk management challenges confronting these banks. While the respondents identified ten critical factors facing commercial banks in Nigeria, the regression analysis was carried out in chapter five to identify those critical success factors that contribute to effective risk management practices in order to answer the third research question, which is the main objective of the study.

The next chapter discusses in detail the research methodology and the procedures adopted to carry out the empirical study to identify those critical success factors that contribute to effective risk management practices in the commercial banking industry in Nigeria.

Chapter Four: Research Methodology

4.0. Introduction

The literature review in chapter two showed that there are gaps when carrying out a study on risk management practices in the commercial banking industry in Nigeria. This chapter outlines the research methods and the procedures adopted to address that gap and carry out the empirical part of this thesis. The chapter covers different sections, including research philosophy, research approach, research strategy, and research design. It also proposes and identifies relevant and rigorous ways of collecting and analysing data.

4.1 Research Philosophy

Slife and Williams (1995) emphasised that philosophical ideas, also refers to as scientific ideas, have been hidden in research for a period of time, but such ideas still have a great influence on research practice and need to be identified. Therefore, the researcher needs to make explicit their research philosophy upon which they espouse for their research work (Bryman and Bell, 2015). This philosophy has an impact on the research methodology, which helps to explain why the researcher chose any particular methods (quantitative, qualitative or mixed-method) for their research (Bryman and Bell, 2015). In this case, the researcher would be able to show the readers their adopted idea base on what they believe, and which idea best suit their study. Creswell (2009, p.6) term this view as "*a basic set of beliefs that guide action*", and refers to it as "*paradigm"*, while Crotty (1998) classifies the view as *"epistemology and ontology"*, which are the two key traditions of selection regarding research philosophy according to Saunders, Lewis and Thornhill (2012).

Trochim and Donnelly (2001) refer to the word epistemology as *"knowledge"*. In their definition, the term epistemology refers to the "philosophy of knowledge" which refers to "how we come to know", while ontology refers to the philosophy of reality. The terms epistemology, ontology and methodology, are interrelated in the sense that epistemology deals with how we come to know that reality, while methodology refers to a particular practice used to achieve the knowledge (Trochim and Donnelly, 2001). The next sections discuss in detail the epistemological and ontological considerations of the research.

4.1.1 Research Epistemological Considerations

Epistemology, according to Crotty (1998, p.8), is concerned with the “acquisition of knowledge and how we know what we know”. Epistemological questions look into the understanding of what human knowledge is (or should be) regarded as acceptable knowledge in a field of study, what is involve and how it is described (Crotty, 1998). Epistemology considers how social researcher may acquire acceptable knowledge in any particular discipline (Bryman and Bell, 2015). However, Sekaran and Bougie (2013) argued that the disagreement about what exists (reality), the definition of knowledge and knowledge acquisition (methods of acquiring knowledge) are not limited to business and management research only, but it has also enthralled theorists, philosophers and researchers of different fields of study for many decades.

The two leading scientific ideas about acceptable knowledge are Positivism and Interpretivism position (Weber, 2004; Finlayson, 2007; Sekaran and Bougie, 2013; Bryman and Bell, 2015). These two ideas are the opposite of one another. Weber (2004) referred to positivism as a “scientific” approach, which deals with objectivity with methods well organised, measurable through objective methods. Positivism argues that any accumulated knowledge through the application of five senses (touch, taste, smell, sound and sight) is the reality. Hence, it is necessary to base the inquiry on scientific research (as opposed to philosophical assumption), and therefore empirical in nature. Both the social and natural sciences use logic along with methodological principles in common to deal with facts rather than values (Gray, 2013).

According to Bryman and Bell (2015), positivism is an epistemological position, which advocates that the study of social reality has to be through the application of the methods of the natural sciences. That is, the positivist researcher will probably stand the philosophical position of the natural scientist (Saunders, Lewis and Thornhill, 2012). However, McGregor and Murnane (2010) stated that within the paradigm of positivistic research, the unique way of judging if knowledge is true or not will depend if such knowledge is made through the utilisation of the scientific method. Hence, the research should incorporate the empirical methodology, and the sources of the data have to be from experiment and observation. Johnson and Onwuegbuzie (2004) argue that positivism as philosophy thinks that phenomena, which can be measured or observed directly are significant, and things that cannot be detected with a scientific method are meaningless and invalid from a scientific viewpoint. Thus, researchers in this philosophy will work with observable social realities, and the results of such research can be law-like generalisations, which is similar to those generated by the physical or natural scientists (Saunders et al., 2012).

On the other hand, Finlayson (2007) argued that Interpretivist methodology involves the collection of qualitative data through methods such as participant observation or unstructured interview that provides such data. According to Weber (2004), interpretivism believes that good research must analyse how humans interpret activities in a unique and different method other than those employed by the positivist approach. It is on this note that Finlayson (2007) highlighted Interpretivism as "*an epistemology that advocates the necessity for the researcher to understand differences between humans, in the role as a social sector*". Also, interpretivism argues that reality is socially constructed and both social and natural sciences require different types of methods. It is concerned with individual actions to induce theory or laws (Finlayson, 2007; Saunders et al., 2012; Gray, 2013).

The choice of research philosophy, according to Saunders et al. (2012), follows a specific pattern of beliefs. Contrary to the positivism above, interpretivist approach adopts a different set of beliefs. Interpretivist is of the opinion that reality is subjective and socially constructed. Interpretivist thinks that social phenomena and subjective meanings are acceptable knowledge. Interpretivism as epistemological position concentrates on the particulars of a specific situation (Saunders et al., 2012). Interpretivism is the opposite of positivism, which advocates the essential of understanding the differences among people as social actors for researchers. It stresses the dissimilarities of conducting research among people instead of objects such as cars or computers (Saunders et al., 2012).

However, it was suggested that in order to answer the required research question(s), it is more beneficial for the social researcher to have different philosophical positions by adopting multi-set of beliefs (Johnson and Onwuegbuzie, 2004; Biesta, 2010; Niglas, 2010; Saunders et al., 2012). For a researcher in any particular field of study as advised by Tashakkori and Teddlie (2010), it is more beneficial to take the adapted beliefs as a continuum rather than opposite positions. Hence, this idea prompted the emergence of a new philosophical approach called pragmatic. This new approach emphasised on the needs to adopt strategies that are more appropriate in order to answer specific research questions. Feilzer (2010) argues that pragmatists are deconstructive paradigms that encourage the use of mixed methods in research by avoiding those contentious issues of truth and reality. He also describes that:

> *Pragmatism is a research paradigm that supports the use of a mix of different research methods as well as modes of analysis and a continuous cycle of abductive reasoning while being guided primarily by the researcher's desire to produce socially useful knowledge. It focuses on 'what works' as the truth regarding the research questions under investigation* (Feilzer, 2010, p.8).

Pragmatists, according to Sekaran and Bougie (2013, p.30), do not in any way, support a specific philosophical position on what makes good research. They believed that research on both observable phenomena, objective and subjective meanings tend to produce valuable knowledge depending on the research questions of the study. Adopting pragmatic approach as a researcher has a various number of advantages, which include encouraging collaboration among researchers with different philosophical positions, allow flexibility in researcher's investigation techniques and support to answer a wide range of research questions (Tashakkori and Teddlie, 2010).

The pragmatists according to Saunders et al. (2012) argue that no single philosophical approach can provide the whole idea when conducting the research study because there are multiple ways or traditions of conducting the research study. However, this assertion does not mean that pragmatists always employ several methods, Saunders et al. (2012) and Kelemen & Rumens (2008) argued that the researcher could use multiple or single methods to facilitate relevantly, substantiated, reliable and credible data to be gathered that proceed the study.

4.1.2 Research Ontological Considerations

The epistemological characteristics described above are indeed related to ontological research considerations (Meyer and Land, 2005; Cunliffe, 2011; Ormston et al., 2014). Gray (2013) refers to ontology as the study of being, which is concerned with the actual world and what constitutes reality. Similarly, Morse (1994, p.137) also emphasised that “Ontology is concerned with the nature and relations of being. Bryman and Bell (2015) also said that ontology is concerned with how a social researcher may interpret or evaluate a phenomenon in an unprejudiced way. In business and management research, the two main positions of ontology are objectivism and constructionism (Saunders et al., 2012: Bryman and Bell, 2015). In order words, Guba and Lincoln (1994) argued that ontological consideration is related to a fundamental question of whether social entities should be seen as subjective or objective (or positivism).

Objectivism position admits that the social entities exist in reality external to social actors concerned with their existence (Saunders et al., 2012; Gray, 2013). Objectivism, according to Bryman and Bell (2015), is an ontological position that affirms that social entities and its meaning have independent and distinct existence from its social actors.

On the other hand, subjectivism (also known as interpretivism or constructionism) ontological position perceives that social actors are continually accomplishing social entities and their meanings (Schwandt, 1994;

Saunders et al., 2012). This is evidence that social entities and categories are always in a persistent state of revision and are not only producing through social dealings. Subjectivism shows that it is necessary to review the details of the specific situations in order to develop a better understanding of the truth or occurrence behind its existence (Meyer and Land, 2005; Saunders et al., 2012).

4.1.3 Research Philosophy of this study.

Based on the research questions of this study in section 1.1, and in order to evaluate the importance of critical success factors in a practical context, the researcher adopts a pragmatic philosophical position. The main aim of this research is to examine those "*critical success factors*" that contribute effectively to risk management practices in the commercial banking industry in Nigeria, with an emphasis to gain a deeper and more detailed understanding of the risk management practices in Nigeria commercial banking system and to confirm its effectiveness. Therefore, this study may likely view research more like a "holistic effort" with an optimistic approach to mixed methods (qualitative and quantitative) (Onwuegbuzie and Leech, 2005; Creswell and Clark, 2017). The study utilised qualitative methodology through a structured interview to provide appropriate background and to inform new perception, which followed by quantitative methodology using a questionnaire to collect relevant data from commercial banks in Nigeria.

This study viewed Nigerian banks, as organisations with a restrictive force that applies to Nigerian banks managers. Nigerian banks formulate risk management procedures and policies, which all bank managers must follow strictly according to their needs. As a result, such restrictive policies put pressure on the banks' mangers. Such pressure varies from one bank to the other depending on the policies the banks put in place. Hence, in this study, the researcher is motivated towards objectivism (or positivism) position that a bank is a tangible entity and reality that is distinct from managers who manage it.

4.1.4 Justification for adopting positivism (objectivism) ontological position for the study.

As a starting point of any research, Crotty (1998) suggested that developing the proposal requires thinking seriously about justifying the methodology that is going to be used in the research. The purpose of the research determines the choice of the research philosophy that the researcher uses. Also, assumptions about reality that we bring to the research affect our justification for choosing certain methodologies (Kothari, 2004).

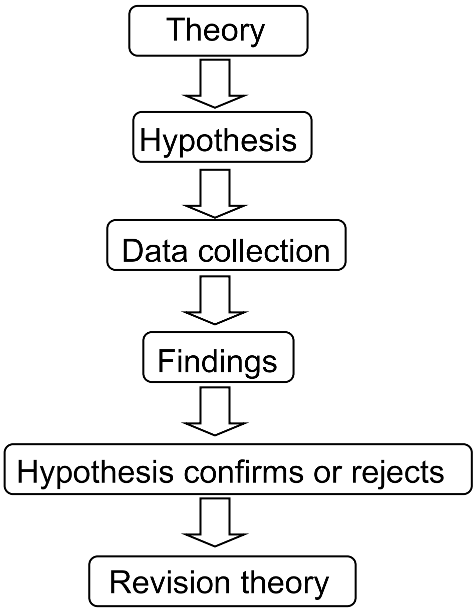
The decision to adopt the positivism research philosophy for this study is based on the following reasons. It is the dominant philosophical position of the risk management literature (Karatas-Ozkan et al., 2014); Its initiatives of risk management practices are relatively new to the Nigerian economy (Salem, 2014), which might need a wide range of quantitative and qualitative research to be done in order to build a reliable database. There is also lack of adequate studies in the field of risk management practices in Nigeria; and finally, in this type of research philosophy, the researcher will stay independent from the research data generation (Robson, 2011), which may help reduce bias. For these reasons, the researcher-embraced positivism as a philosophical position for this research project to conduct a simple structured interview and construct a questionnaire seeking to collect as much information as possible (that is, mixed methodology).

4.2 Research Approach

Bryman and Bell (2016) categorised business research primarily into two approaches: deductive and inductive. A deductive approach is a top-down approach, which means that one or more theories produce a hypothesis and aim at data collection. This approach, according to Gill and Johnson (2010), helps the researchers to deduce a hypothesis based upon a specific theory. The researcher collects certain data to accept or reject the hypothesis in order to answer the research questions. Finally, the theory itself will be confirmed or revised (Bryman and Bell, 2007).

In order to understand the steps of the deductive approach, Bryman and Bell (2007, p.11) describe the process of deduction, as shown below:

Figure 4.1: Process of Deduction



Source: Bryman and Bell (2007, p.11)

The inductive approach is the opposite of the deductive approach in that it is a bottom-up approach, in which the researcher starts with the empirical observation. The researcher, therefore, infers the implication of his or her findings. The theory is the outcome of this approach, according to Bryman and Bell (2007).

Gill and Johnson (2010) recommend that it is important to understand these two approaches for investigation in order for a researcher to be able to choose an appropriate research approach for their study. Table 4.1 below summaries the comparison between deductive and inductive approach.

Table 4.1: Comparison of Deductive and Inductive – From reason to research

	Deductive Approach	Inductive Approach
Logic	In deductive inference, true premises are used to generate true conclusions.	In inductive inference, known premises are used to generate unconfirmed conclusions.
Generalizability	In this approach, generalisation is made from a wide-ranging to the specific.	In inductive, generalisation is made from the specific to the general.
Use of data	Data is collected to test hypothesis linked to an existing theory.	Data is collected to explore a phenomenon to create a conceptual framework
Theory	Theory testing or verified	Theory building or generation

Source: Saunders et al. (2012)

4.2.1 Research Approach of the Study

The research started with a theoretical foundation by review existing theories and published articles. This step will lead to the formulation of the hypothesis based on the critical success factors identified. Then proceed to primary data collection through structured interview and questionnaires. The collected data will be statistically analysed by evaluating each of the identified critical success factors to confirm or reject the hypothesis. Finally, the result will either confirm or revise the theory. Hence, the nature of this study is empirical; therefore, the research approach will be based on deductive reasoning.

4.3 Research Strategy

A research strategy refers to a step-by-step general plan of actions formulated to give direction to business research. It enables a researcher to conduct research systematically and on schedule to produce a comprehensive and quality results and to report (Myers, 2013; Merriam, 2015).

Bryman and Bell (2015) divided the business research strategy into two main types: qualitative and quantitative. According to Bryman and Bell (2015), the quantitative research strategy (methods) involves the collection of numeric data; the data is usually collected using a questionnaire. It is connected with positivism philosophy and incorporates a deductive research approach. Its ontological consideration is associated with objectivism. On the other hand, the qualitative research strategy is not concerned with numbers. Instead, they emphasise words rather than quantification in data collection and analysis. Unlike the quantitative research strategy, qualitative research strategy is associated with interpretivism philosophy, which involves inductive approach and incorporated constructionism as its ontological consideration. A common form of qualitative research strategy tool is an interview (Myers, 2013; Sekaran and Bougie, 2013; Bryman and Bell, 2015; Merriam, 2015).

However, the difference between these two research strategies is not a conclusive one, as there are many studies that clarified that the features of one of the strategy may contain some of the characteristics of the others that may be recognized as mixed methods or multi-strategy research (Jick, 1979; Greene, Caracelli and Graham, 1989; Creswell, 2009; Bryman and Bell, 2015; Creswell and Clark, 2017). Malina, Norreklit and Selto (2011) argued that employing both qualitative and quantitative methods simultaneously or iteratively create a research outcome stronger than using either method individually.

The concepts of qualitative or quantitative can be unclear and open to different interpretation. However, the issue is not about qualitative versus quantitative techniques, but whether one is taking a logical process to understand the interaction of variables in a complex environment, or one is taking an analytical methodology to understand a few controlled variables (Salomon, 1991). According to Firestone (1987), quantitative research techniques encourage researchers through de-emphasising individual judgment and highlighted the use of recognised procedures that leads to outcomes, which may be used to generalise the population. On the other hand, qualitative research method according to Myers (2013) encourages researchers through a strategic comparison across cases or a detailed description, thus overcoming the fundamental perception in quantitative research techniques and allowing generalisation to theory.

The concepts of qualitative research methods tend to answer research questions that address “why” and “how” while quantitative research techniques usually address “how many” and “how often”. Hence, this suggested the reason why mixed methods (combining both quantitative and qualitative methods) can be productive for attaining profoundly new empirical understandings (Malina, Norreklit and Selto, 2011; Creswell and Clark, 2017). Also, Creswell (2014) suggests that mixed-method should be or can be practised if, in combination, the two methods accommodate the best understanding of answering the research question(s).

Bryman and Bell (2015) emphasised that the acceptance and the use of mixed methods have increased tremendously in the field of social science and commonly in business research. Many researchers have conducted a different number of study and found using mixed methods research techniques more significantly (Johnson and Onwuegbuzie, 2004; Creswell and Clark, 2017).

The below table shows a summary of various research articles on mixed methods techniques.

Table 4.2: Use of mixed methods approach in different fields by different researchers.

S/N	Researcher(s)	Field of Study	The proportion of mixed methods in total research
01	Hanson and Grimmer (2005)	Marketing	14%
02	Hummerinta-Peltomaki and Nummela (2006)	International Business	17%
03	Bryman (2008)	Business and Management	12% - 17%
04	Molina-Azorin (2008)	Operational Management	10%
		Entrepreneurship	8%
05	Molina-Azorin (2009)	Strategic Management	17%
06	Molina-Azorin and Lopez-Fernandez (2009)	Organisational Behaviour	7.5%
07	Grimmer and Hanson (2009)	Human Resources Management	11%
07	Alise and Teddlie (2010)	Psychology, Sociology, Nursing and Education	11%

Source: Ishtiaq (2015)

The above table 4.2 shows that there is a number of researchers that use mixed methods in a different field.

In this current study, the researcher adopted mixed method by taking quantitative method as the main component to provide detailed results in order to answer the research questions and to meet the research objectives, whereas the qualitative techniques serve as a foundation of the research.

The justification for adopting a mixed-methods approach is that integrating these two methods (quantitative and qualitative) provides a better understanding of the research problem than either one of the methods separately. Also, in mixing both qualitative and quantitative research and data, the researcher gains breadth and depth of understanding and corroboration, while offsetting the weaknesses inherent in using each approach by itself. Conducting mixed methods research enables triangulation, that is, the use of several means (methods and data sources) to examine the same phenomenon. Triangulation allows the researcher to identify aspects of a phenomenon more accurately by approaching it from different vantage points using different methods and techniques. It is for this reason that the researcher collected qualitative data through well-structured interviews. The interviews focused on the personnel in charge of risk management in Nigeria commercial banks, that is, Head of each risk management in different banks, followed by quantitative data collection using questionnaire. The questionnaire data collection were targeted at other risk management staff that are saddle with risk management responsibilities.

Thus, this research aims to contribute methodologically to the on-going discussion on the issue of effective risk management in developing countries particularly in Nigeria by using different methods of data collection to answer the research questions in a single study.

4.4 Research Design

Research design is the overall detailed plan choosing to integrate different mechanisms of the study in a logical and comprehensible manner in order to address the research questions effectively. It shows detailed plan how data is collected, measured and analysed based on the research questions (Check and Schutt, 2011; Saunders et al., 2012; Sekaran and Bougie, 2013; Bryman and Bell, 2015). The research design provides a link between the research objectives and the activities (collection of data and analysis) needed to achieve the study objectives (Edelson, 2002; Collins, Joseph and Bielaczyc, 2004). Therefore, it is a framework created to find appropriate answers to research questions. However, the design of a study defines the type of the study (experimental, semi-experimental, correlation, descriptive, meta-analytic, review) and sub-type (for example, experimental design, hypotheses, descriptive-longitudinal and case study design) and if necessary, data collection and statistical data analysis plan (Johnson and Onwuegbuzie, 2004; Creswell, 2014).

Bryman and Bell (2016) emphasised that there are several ways to classify research designs, but sometimes, different designs are combined and other times distinction are artificial. Bryman and Bell (2016) stated that research design is a procedure of collections or conditions. Hence, the following list provides useful distinction between some possible research designs: experimental (experiment with random assignment), semi-experimental (quasi-experiment, field experiment), correlational (observational study, case-control study), descriptive (survey, naturalistic observation, case study), meta-analytic (metal analysis), and review (systematic review, literature review) (Edelson, 2002; Saunders et al., 2012; Sekaran and Bougie, 2013; Bryman and Bell, 2015).

Experimental research design denotes a conceptual framework within which the experiment is conducted (Cobb et al., 2003). Cooper, Schindler and Sun (2006) refer to experimental research design as a plan of the procedures, which help the researcher to carry out hypothesis testing in order to reach valid conclusions about relationships that exist between dependent and independent variables. There are different types of experimental research design including laboratory experiments, field experiments and quasi-experiments, which are undertaken in the modern scientific research (Cooper, Schindler and Sun, 2006; Sekaran and Bougie, 2013; Bryman and Bell, 2016).

Mitchell (1985) refers to correlational research design as a quantitative method of study in which two or more variables from the same group of participants are put together to determine if there exists relationship (or co-variation) between them. Example of this type of research includes observational study and case-control study. Whereas, the descriptive research design is a research designed that accurately describe the participants. The three most common ways to collect this type of information include through case study (an in-depth study of a group of individuals or an

individual), observational (methods of recording or viewing the participants) and survey (brief discussions or interviews with individuals about a specific topic) (Lambert and Lambert, 2012; Sekaran and Bougie, 2013). While, the meta-analytic research design is also referred to as a formal, quantitative and epidemiological design, which is used to analytically assess previous research results in order to conclude that body of research. This type of research is usually but not necessarily based on randomised controlled clinical trials.
Furthermore, the purpose of the review research design is to succinctly analyses recent progress in a certain topic. Such a review can be carried out systematically to summarise the existing state of knowledge on a particular topic. It also enables the reader to understand the topic while deliberating on the findings presented in recent research papers (Littell, Corcoran and Pillai, 2008; Sekaran and Bougie, 2013).

The choice of any particular research approach involves many factors depending on the objectives of the study, the purpose of the study and the techniques for analysis (Robson, 2011; Creswell, 2014). Sometimes, a distinction can be made between "fixed" and "flexible" designs. In some cases, these types of research correspond with quantitative and qualitative research designs, respectively (Anderson, 2001; Cooper, Schindler and Sun, 2006).

A quantitative research design is commonly associated with the deductive approach. However, it can also incorporate inductive approach in order to develop a new theory. It deals with numerical data collection and analysis in order to examine the relationships between variables using statistical techniques. Whereas, qualitative research design, according to Yin (2009), is generally connected to the inductive approach. The deductive approach can also be incorporated into many qualitative studies in order to test the existing theory at the beginning of the study. This type of research deals with non-numerical data in the form of words to analyse the relationship between participants of the study using different analytical techniques (Yin, 2009; Creswell and Creswell, 2017).

Creswell (2014) explained that there is another type of research design known as mixed-method (multi-strategy) research design, which incorporates both quantitative and qualitative research design to collect and analyse a data in a single study. Either deductive or inductive approach may be used in this type of research design, or the two can be combined in mixed-method research design (Johnson and Onwuegbuzie, 2004; Saunders et al., 2012, p.164; Creswell, 2014).

4.4.1 Research Design of the Study

Considering the research question of the study in section 1.1, the focus is on Nigeria commercial banking industry to examine those critical success factors contributing to effective risk management practices, the research questions aim to gain comprehensive knowledge and a general view of the risk management systems of Nigeria commercial banking in order to establish the effectiveness of risk management. In addition, this research probes more questions to provide the empirical justifications vis-à-vis risk management practices and those factors that contribute to its effectiveness by adopting mixed-method research design. The study started with qualitative data collection through well-structured interviews of personnel in charge of risk management in Nigeria commercial banks, followed by quantitative data collection using questionnaire and analysis. For this purpose, the research deals with primary data collected through both interviews and questionnaire.

4.5 Research Population and Sampling

The purpose of using sampling in research is to find representative samples from the whole population in order to avoid bias. Sometimes, it is often impossible and undesirable to study the entire population due to certain problems such as cost, time constraints and other logistics (Cooper, Schindler and Sun, 2006; Sekaran and Bougie, 2013). Hence, the researcher uses sampling techniques to find representative samples to avoid bias due to problems of studying the entire population. Therefore, the following sections provide detail about the population and sample selection required for this study.

4.5.1 Research Study Population

The population of a study is generally a large collection of units from which sample can be selected, which is the focus of a scientific query (Kothari, 2004; Cooper, Schindler and Sun, 2006). The researcher relied on the sampling method because it is difficult to research the entire population due to time-consuming and too expensive cost (Bryman and Bell, 2015). The population of a study is also referred to a well-defined collection of items or individual with similar characteristics (Cooper, Schindler and Sun, 2006; Bryman and Bell, 2015). The research population of this study comprises of three different classes of commercial banks in Nigeria, namely, Tier 1 (International), Tier 2 (National) and Tier 3 (Regional).

There are many banks in Nigeria and the Central Bank of Nigeria (CBN) is the chief of all the banks. The CBN is a regulatory body for all the banks and other financial institution in Nigeria, hence, serve as the bank of Bankers. Therefore, the CBN monitors and controls the activities of all banks in Nigeria. Because of merger and acquisition that took place in recent time, due to the CBN action to strike out some banks with no solid financial foundation, there are twenty-two commercial banks in Nigeria at present.

As earlier mentioned above, commercial banks in Nigeria are of different categories. The CBN approved and licensed some of them as international operations, while others are licensed as national and regional. These are referred to as Tier 1, tier 2 and Tier 3, respectively. Jaiz bank (an Islamic bank) is the only and first commercial banking in Nigeria having non-interest banking license with national (Tier 2) approval. Table 4.3 below shows the list of commercial banks in Nigeria and their categorisation.

Table 4.3: List of Commercial banks in Nigeria and their Categorization.

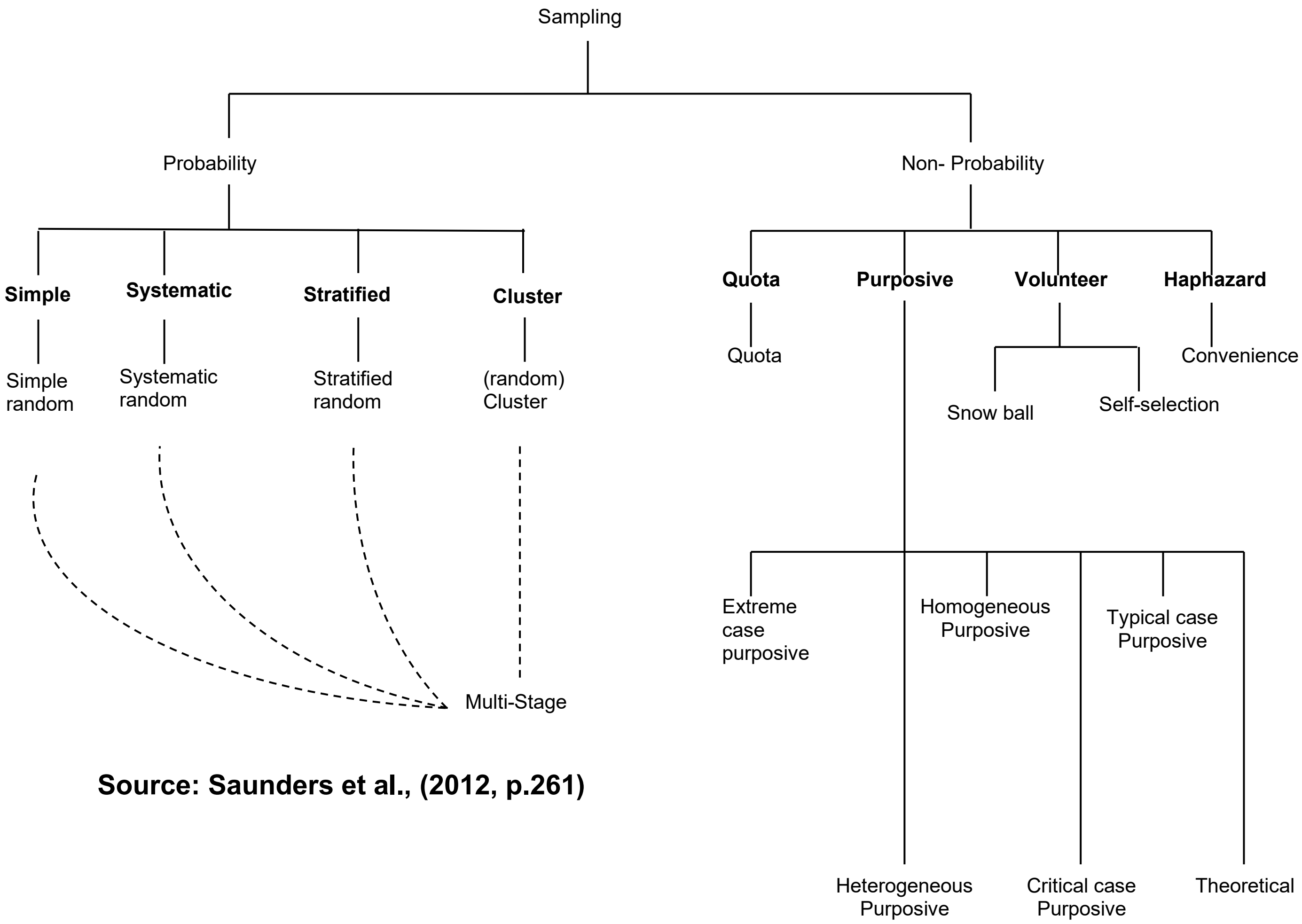
Name of Commercial Banks and Categories			
S/N	**Tier 1 (International)**	**Tier 2 (National)**	**Tier 3 (Regional)**
01	Access Bank	Citi Bank	Providus Bank
02	Diamond Bank	Ecobank Nigeria	Suntrust Bank
03	Fidelity Bank	Heritage Bank	
04	First Bank of Nigeria	Jaiz Bank	
05	First City Monument Bank	Keystone Bank	
06	Guaranty Trust Bank	Stanbic IBTC Bank	
07	Skye Bank	Standard Chartered	
08	Union Bank	Sterling Bank	
09	United Bank for Africa	Unity Bank	
10	Zenith Bank	Wema Bank	

Source: Self designed

4.5.2 Research Sample Selection

The selection of sample in this research is centred upon two fundamental sampling techniques, namely, probability sampling techniques and non-probability sampling techniques. In probability sampling techniques, each member of the population has an equal chance of being chosen as a representative sample. Whereas, in non-probability sampling techniques samples are being chosen by the researcher based on subjective judgment, rather than random selection. That is, some units have more chance of being selected as a representative sample of the population than the other (Kothari, 2004; Sekaran and Bougie, 2013; Bryman and Bell, 2015). Both probability and non-probability sampling techniques are further divided into different categories, as shown in the diagram below.

Figure 4.2: Probability and Non-Probability Sampling Techniques



Source: Saunders et al., (2012, p.261)

This research used stratified random sampling to ensure that the selected samples are arranged universally and represent a definite proportion of total banks from each commercial bank category (Tier 1, Tier 2 and Tier 3). Stratified sampling refers to a type of probability sampling techniques in which the population is divided into different smaller groups called strata, and then the researcher randomly selects the final sample proportionally from the strata (Yates, 1946, Kothari, 2004). However, the choice of banks selected for this study was based upon availability and the responses from the targeted audience.

According to Ruane (2005) and Fowler (2013), any targeted population size of 500 or less should have a sample size of 50% of the population in order to deduce statistically valid generalisations about a specific representative of the population.

Hence, for interview data collection, the researcher targeted the head of the risk management unit from each bank in the first phase of analysis. The study was able to conduct an interview and collected data from Nineteen (19) head of risk management department from nineteen (19) different banks out of the twenty-two commercial banks in Nigeria, which formed 86% of the population. Based on the banks' head of risk management unit availability and time constraint, the researcher was able to successfully conducted interview with all the ten (10) banks from tier 1 (International) and eight (8) out of ten (10) from tier 2 (National), which formed 100% and 80% of the population respectively in each category. In addition, one interview was conducted with one bank out of the two banks from tier 3 (Regional) category forming 50% from that category. The results of this first phase of the research were considered a great representative of the entire population under consideration.

From the researcher previous survey from the interview (1st phase of data collection), it was discovered that the total number of risk management staff in some of the banks in Nigeria are not more than seven (7) staff while other banks have more than seven (7). Hence, in order to ensure consistency across the board for the second phase of the data collection, the researcher targeted five (5) risk management staff from each of the twenty-two (22) commercial banks in Nigeria in order to gauge their responses. This is because, the risk management is not restricted with the sole responsibility of the head of risk management in banks, but everyone who works for the bank is responsible for it (Barth, Caprio and Levine, 2001; Aebi, Sabato and Schmid, 2012).

The researcher distributed five (5) copies of questionnaire each to all the twenty-two banks with the expectation of getting 110 respondents from the 22 banks. However, five (5) targeted staff from 19 banks, and three (3) staff from one other bank returned the completed questionnaires to make 20 banks (98 respondents) in total, resulting into 89% of the entire population. The researcher found the results of the second phase of the study to be an excellent representative of the entire population under consideration.

4.6 Data Collection Method

There are two categories of data: primary and secondary data. Primary data refers to raw data collected directly from first-hand sources. This type of data can be obtained using survey, experimentation, observations, interviews and questionnaire (Bryman and Bell, 2015). Secondary data, according to Bryman and Bell (2015), refers to data collected by someone other than the primary user. This type of data may be either published data or unpublished data. Examples include data that was originally collected for other research purposes, technical and trade journals, public records, and statistical or historical documents (Bryman and Bell, 2015). Unlike primary data, secondary data is inexpensive to collect and tends to be readily available for researchers or people that needed it. However, the type of data chosen by the researchers for research purposes or other reasons depends on several factors, which include their budget, available resources, research question and their skills. Based on these factors, the researcher may choose to use secondary data or primary data or both. Many researchers generally collect primary data when the secondary data is unavailable or insufficient or inappropriate (Check and Schutt, 2011; Sekaran and Bougie, 2013; Bryman, 2016).

This study employed both semi-structured interview and a questionnaire to collect primary data in order to answer the research questions. The adopted methods of data collection are discussed extensively in the next sections below.

4.6.1 Interview Method

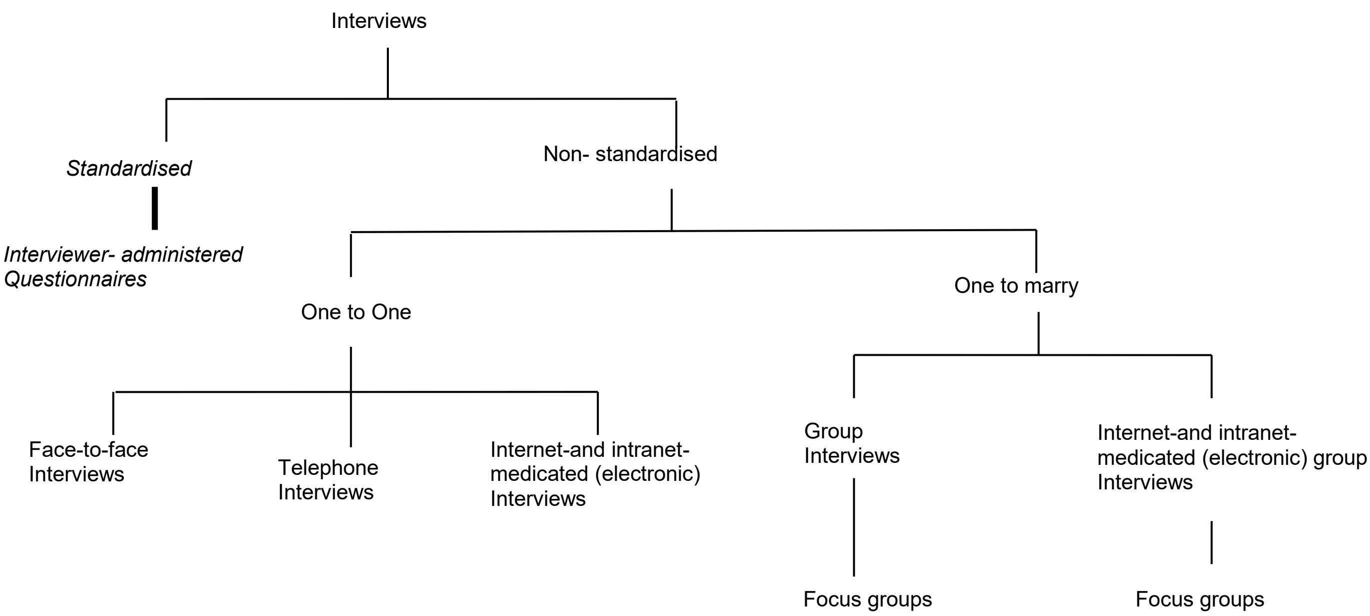
In this type of method, the researcher collects specific information through a conversation with the respondents. This method involves the presentation of oral verbal stimuli and response in terms of oral (Weller and Romney, 1988; Trochim and Donnelly, 2001; Bryman and Bell, 2015). The classification of an interview depends on the nature of the interaction between the researcher and the respondent(s). Hence, the interview method of collecting data can be achieved in two ways: Personal interview and Telephonic interviews.

The personal interview generally requires the interviewer to ask questions face to face with the respondent, through direct personal investigation (interviewer collect information personally from the services concerned); indirect oral examination (interviewer cross-examine people who have knowledge about the problem); structured interviews (this involves the use of pre-determined questions and high standard techniques of recording); semi-structured interviews (this combines a pre-determined set of open questions with an opportunity for the interviewer to explore further responses on the research topic); unstructured interviews (this does not involve a system of pre-determined questions, which is characterized by a flexible method of questioning); focused interview (in this type of method, the interviewer may decide to ask questions in any sequence in order to explore the respondent motives and reasons, in which interviewer focus attention on the given respondent experience and its effect); clinical interviews (this method is used to elicit information from the participant(s) in the interviewer direction. It is concerned with the individual's life experience, motives or feeling); and non-direct interview (this involves a bare minimum of direct questioning in which the interviewer encourages the participant(s) to talk about the given topic) (Weller and Romney, 1988; Sturges and Hanrahan, 2004; Rubin and Rubin, 2011; Saunders et al., 2012; Bryman and Bell, 2015).

Telephonic interviews involve a process whereby the interviewer collects information by contacting the participant(s) on the telephone and asking questions or their opinion on certain issues orally (Sturges and Hanrahan, 2004; Rubin and Rubin, 2011).

As earlier mentioned, interviews can also be divided depending on the mode of communication between the interviewer and the participant(s) as shown in figure 4.3 below.

Figure 4.3: Classification of Interview method



Source: Saunders et al., (2012, p.375)

The researcher has made use of the face-to-face semi-structured interview to conduct the first stage of primary data collection from the head of the risk management unit in Nigeria commercial banks. The reasons to adopt this method include the following:

- It gives the risk managers the freedom to express their views in their terms.
- It also assisted the researcher to explore more information on the research topic, which also provides the opportunity for learning.
- It encourages two-way communication between the interviewer and the participant. The participant(s) has the opportunity to ask questions for more clarity if the question asked is not clear to them.
- It allows the researcher to approach and network with quite several participants of different banks across the country.

The researcher targeted the head of the risk management department in each of the commercial banks in Nigeria because of their in-depth knowledge about the whole idea of risk management practices in Nigeria. Each of this head of risk management is in a responsible position of authority as top management personnel. By considering their seniority position, the researcher prepared a well-defined set of interview questions, which includes both closed-ended as well as open-ended questions. The Interview questions consist of two parts:

Part 1: consists of five (5) questions both open-ended and close-ended questions. The first three questions tend to find out the respondent years of experience working in risk management as head of risk management unit, expectation from risk management in their banks and how critical is risk management within their banks. The last two questions from this part tend to identify various types of risks currently faced by the banks and to ascertain common major risk facing commercial banks in Nigeria in order to answer the first research question of this study.

Part II: the first three questions in this section was designed to be open-ended questions to allow the respondents to express their views in order to gain a better understanding of critical risk management issues in Nigeria, especially within the commercial banking industry. These questions were specifically designed to establish risk management challenges in commercial banks in Nigeria in order to answer the second research question. The last four questions designed to investigate those factors that contribute to effective risk management practices in Nigerian commercial banks based on the critical success factors extracted from literature.

The researcher sent e-mail participation requests to all the twenty-two (22) commercial banks in Nigeria and gave them a brief introduction and purpose of the interview. Twenty-one persons responded, and out of the total respondents, nineteen individuals showed willingness to participate. According to Rubin and Rubin (2011), a researcher must select participants who will be voluntarily ready to give participate and share relevant information. Hence, the researcher sent another email to arrange appointments (date and time for interviews) to the interested and willing participants based on their availability. The researcher conducted these interviews in two major cities (Abuja and Lagos) in Nigeria. This was because most of the banks' headquarters where their risk management office are located are in these two cities.

In order to encourage and motivate the participants to speak honestly and openly, the researcher assured them that all the information provided would be used solely for the research purpose only. For ethical reasons, the researcher also emphasised that neither their personal identity or the banks' identity would be disclosed to anyone without their prior permission, to which they all agreed. All the participants appreciated the main purpose of the study because risk management is one of the areas yet to be fully explored in financial institutions in Nigeria. The interviews were conducted in English, which is the official language in Nigeria and most of the interviews carried out lasted between seventy (70) to ninety (90) minutes. At the beginning of each interview, the researcher gave a twenty (20) minutes oral presentation to explain the research objectives and emphasised the significance of the interview. All the participants gave their consents to record and document all the interviews discussions except irrelevant issues discussed during the interview. After the 20 minutes presentatation, each interview lasted for 50 to 70 minutes. All the interviews were recorded in English, and verified by the supervisory team with an approval to proceed with the first data analysis. The results of the interview analysis were discussed in detail in the next chapter under research analysis. We can note that the result of the interview analysis concerning the identified ten critical success factors by the nineteen (19) Heads of risk management of the nineteen respondent banks were used to generate and design the questionnaire that was used to collect the quantitative data. This is discussed in greater detail in the next section below.

4.6.2 Questionnaire Method

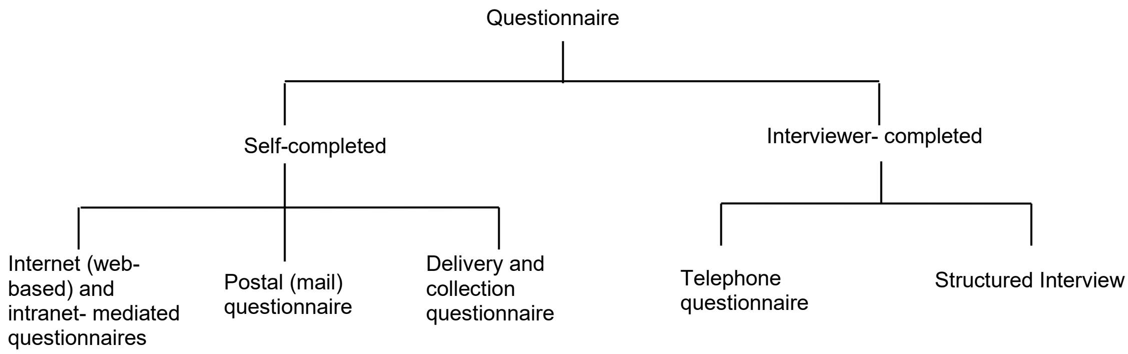
A questionnaire is one of the cost-effective ways of collecting data (Kent, 2007). It refers to a set of written or printed questions with a choice of answers in which every respondent is asked to respond for the purpose of a statistical study or surveying (Fink, 2012; Saunders et al., 2012; Fowler Jr, 2013). As a cost-effective and efficient technique of collecting data, the questionnaire is a widely acceptable and advantageous method to collect specific data from a large population in business and management research (Kothari, 2004; Saunders et al., 2012; Fowler Jr, 2013).

In order to answer the research questions and evaluate each of the critical success factors identified from the interviews, the researcher adopted and designed a questionnaire from a set of questions that enabled the gathering of information on each of the identified factors that contribute to effective risk management practices in commercial banks in Nigeria. The researcher considered the questionnaire as a method to collect the primary data based on the following:

- It serves as a great resource in the context of this study area because banks in Nigeria generally publish few details about their risk management practices in their annual reports (Soludo, 2004; Sanusi, 2010).
- It gives the participants adequate time to respond to the questionnaire at their own convenient time.
- The respondents are quickly and conveniently approachable
- It is the most effective and efficient techniques to approach the participants within the banking industry in Nigeria because most of the staff prefer the researcher to drop the questionnaire for them to complete it at their own convenient time.

Collecting primary data through a questionnaire can be done in various ways. The questionnaire can be distributed electronically, or by postal, or self-administered, as shown in figure 3.4 below. Each of these ways has its specific characteristics. In order for the researcher to make a suitable selection, each of these attributes needs to be considered (Kothari, 2004; Saunders et al., 2012).

Figure 4.4: Different types of Questionnaire



Source: Saunders et al., (2012, p.420)

A self-administered (or self-completion) questionnaire according to Bowling (2005) and Kothari (2004) refers to a questionnaire that was specifically designed to be answered by the participants without the involvement of the researcher collecting the data. These questionnaires can be sent and collected in different ways: through the internet (web-based) and intranet; delivered and returned by post; and self-delivery and self-collection ways. The most common form of self-administered questionnaires is the self-delivery and self-collection in which the researcher personally distributed the questionnaires to the targeted audience and collects them back later (Fowler Jr, 2013; Bryman and Bell, 2015).

The interviewer-completed types of the questionnaire are documented by a researcher based on the responses of a single participant on each question. This type of questionnaire is categorised into two: a telephone questionnaire; and a structured interview. In the telephone questionnaire, the telephone serves as a medium of communication between the researcher and the respondent. While, in a structured interview, the researcher physically approaches the targeted participants to obtain answers to the questions. The structured interviews are different from non-standardized (semi-structured and unstructured interviews), as this comprises predetermined planned questions in which the researcher strictly follows the prepared agenda of questions (Kothari, 2004; Dillman et al., 2009: Saunders et al., 2012).

The researcher has chosen the self-delivery and self-collection ways of collecting the primary data based on the following considerations.

- It enables the researcher to immediately explain and clarify the targeted participant's (banks staff) queries regarding any question(s) of the questionnaire.
- It motivates the respondents to give their unbiased opinions to each of the questions in the questionnaire
- It helps to increase the response rate from the busy banks' staff as they completed the questionnaire at their earliest convenient time.
- It gives the researcher the chance to explain the theme of the study to the participants.
- It gives the participants more time to think and provide appropriate answers to the questions.

4.6.2.1 Design Questionnaire

Oppenheim (2000) refers to questionnaire design as a design of questions used to obtain data needed for particular research. A questionnaire is a methodical data collection technique that comprises of a sequence of questions that participating or targeted audiences are requested to respond to in order to provide answers to specific research questions (Oppenheim, 2000; Fink, 2012; Bryman and Bell, 2015). According to Fink (2012), the format of any questionnaire influences the response, reliability and the validity of the data collected. Formulating questions in such a way that they facilitate the appropriate information from the targeted audience is one of the most critical parts of the study. Oppenheim (2000) argues that there are no scientific ideologies that assure a perfect questionnaire design. However, in order to improve the response rate, coupled with reliability and the validity of the data collected, certain steps need to be followed to ensure good questionnaire design (Oppenheim, 2000; Fink, 2012; Fowler Jr, 2013; Denscombe, 2014).

- **Specify the information needed** – in designing a good questionnaire, the first thing to do is to specify the information needed from the participating audience in order to achieve the research objective. It is important for the researcher to completely review the components of the problem, particularly the information needed, research questions and the hypothesis.

- **Define the target audience** – The researcher needs to identify the type of participating audience from whom the data will be collected. Hence, designing a specific questionnaire that is based on the targeted audience for the study must be appropriate to achieve the research objectives.

- **Specify the type of interviewing method** – the researcher needs to identify how the targeted audience can be reached. It could be face-to-face interaction, telephone conversation, or a questionnaire method (through email, by post or drop off & collect later). For the questionnaire, it has to be self-explanatory and contains clear and precise necessary information to achieve a complete response.

- **Determine the content of individual questions** – the next step after specifying the information needed and the type of interviewing method is to decide the content of the question. The questions must be tailored specifically for the study. The researcher must try as much as possible to avoid ambiguous questions that are not relevant to the research purpose. There is a need for the researcher to keep the language simple for clear and unambiguous understanding of the questions and instructions.

- **Overcome targeted audience's inability and unwillingness to answer** – The researcher needs to design the questions in a simple language easy for the participating audience to understand. Also, there is a need to avoid lengthy questions that can put the audience off to complete the questionnaire.

- **Make a decision on the question structure** – The researcher needs to decide on the structure of the questionnaire. The researcher must decide whether to use questions that are structured (closed-ended questions) or unstructured (open-ended questions) or both depending on the research questions and objective of the study.

- **Determine the wording of the questions** – For the targeted audience to quickly understand the instructions and the questions, the researcher must translate the desired questions into words that can be easily understood so that the information provided by the participating audience is similar to what was intended. The participant might decide not to answer any poorly written questions or might give an inappropriate answer, and this may affect the desired information been sought and increase the complexity of the data analysis.

- **Determine the order of the questions** – the order in which the questions must be asked must be decided by the researcher. In order to establish good rapport and participant involvement, the opening questions must be easy, non-threatening and interesting. Using an open-ended question at the beginning is usually considered as good because many people like to express their opinions.

- **Identifying the form and layout** – The spacing, format and positioning of questions have a substantial consequence on the results. However, for a self-administered questionnaire, the layout of the questions play a significant role, and it is important to divide the questionnaire into numerous parts with accurate numbering to clearly define the divisions of a question.

- **Reproduction of questionnaire** – the appearance and quality of the paper in which the questionnaire is printed gives some impression to the targeted audience. Questionnaire printed on a poor paper might give the participant a wrong impression to the effect that the research is unimportant. Hence, it is highly recommended to always reproduce the questionnaire on a good-quality paper with a professional appearance to give the participant a positive impression about the importance of the research.

- **Pretesting** – It is recommended that a pilot study be conducted to determine the suitability of the questionnaire. Testing the questionnaire on a few selected sample of the actual targeted audience will enable the researcher to identify and eliminate any potential problems. Therefore, the questionnaire design is a multi-stage method that needs the researcher's attention to many details.

In view of the above questionnaire design process and the objectives of this study, the researcher considered the following in order to adopt various items within the questionnaire of this research.

- In order to maximise the response rate, the researcher included clear, succinct but focused open-ended questions in the questionnaire.
- In order to maintain the interest of the participants and avoid unwillingness to answer, the researcher ensured that all the questions were transparent, coherent and designed in a simple language for the participating audience to understand.
- The researcher also ensured that the privacy and identity of the participants were strictly maintained in order to adhere to the confidentiality policy.

The research questionnaire comprises of two parts.

Part I: This part is concerned with the demographic characteristics of the respondents. The information obtained in this part consists of the name of the bank, gender, age group and years of experience in risk management of the participants.

Part II: This part is designed based on the ten factors identified from the interview section as independent variables and risk management practices as the dependent variable. These ten factors **(independent variables)** are culture, information technology, customer involvement, training and development, communication, top management support and commitment, internal audit and compliance, strategic alignment, organisational structure, and trust.

The **dependent variable**, in this case, is risk management practices. This part comprises of forty-seven (47) closed-ended questions. Apart from culture, information technology and customer involvement with five statements each, other themes have four statements each. Each factor is measured by five-Likert scale (from strongly disagree = 1 to strongly agree = 5), and this explains why the data evolves from 1 to 5 as depicts the minimum and the maximum values. According to Cox III (1980), Likert scaling refers to a bipolar method of scaling, which measures either negative or positive responses to a statement. The participants are required to select the appropriate statements that relate to their bank's risk management policies currently being practised based on their expertise, understanding and experience in risk management. A brief description of each scale used in the questionnaire is shown in Table 4.4 below:

Table 4.4: Explanation of the Five-Likert.

Scale Value	Explanation of the scale
1	**Strongly disagree** - means that the statement is highly not favoured and definitely not appropriate with the bank's risk management practices.
2	**Disagree** - means that the statement is inappropriate and not favoured with the bank's risk management practices.
3	**Neither disagree nor agree** - means that the respondent has no opinion regarding the statement, or the respondent is somewhere between agreeing and disagreeing.
4	**Agree** - means that the statement is appropriate, favoured and essential with the bank's risk management practices.
5	**Strongly agree** - means that the statement is definitely appropriate, highly favoured and very fundamental with the bank's risk management practices.

Source: Self designed

The full details of the research interview questions and the questionnaire can be viewed in Appendix 2 and 5, respectively. However, the researcher and the supervisory team led by the director of the study discussed, reviewed and approved all the research interview questions and the questionnaire before embarking on carrying out the interviews and administer the questionnaire to collect the required information from the banks. The university also issued two different letters of introduction to the banks for both the interview and the questionnaire (**see appendix 1 and 4**). These letters showed the legitimacy of this study and encourage the full cooperation of the bank's personnel.

In line with the questionnaire design process recommendation to conduct a pilot study to determine the suitability of the questionnaire earlier discussed above, the section below discusses the pilot study carried out by the researcher before embarking on the final data collection.

4.6.2.2 Pilot Study

A pilot study can be viewed as a feasibility study, which refers to a trial run carried out in preparing for the actual study. This can be a specific pre-testing of research instruments, which includes interview schedules or questionnaires (Lancaster, Dodd and Williamson, 2004; Thabane et al., 2010; Saunders et al., 2012). The purpose of a pilot study is to determine if the actual research can be accomplished. It is mini-version of a full-scale study to test research procedures, data collection instruments, sample strategies and other research techniques. Such study usually involves a smaller number of respondents and last for a shorter periods of time (Thabane et al., 2010; Saunders et al., 2012; Bryman and Bell, 2015).

A pilot study is seen as an essential phase in the research project carried out to detect if there exist any deficiencies in the research instruments and procedure and any potential problem areas before conducting the full study. Though usually connected with quantitative experimental design, but can be used in any methodological setting, particularly when trying to collect data in a new location before carrying out the full research work (Cooper, 1982; Lancaster, Dodd and Williamson, 2004; Sekaran and Bougie, 2013). The pilot study mostly fulfils a considerable number of roles according to several kinds of literature (Cooper, 1982; Oppenheim, 2000; Lancaster, Dodd and Williamson, 2004; Thabane et al., 2010; Saunders et al., 2012; Bryman and Bell, 2015).

- It helps the researcher to confirm if the research instruments will be suitable to answer the investigative questions of the study.
- It helps the researcher to identify any deficiencies in the research instruments in order to improve the instrument for achieving more acceptable responses.
- It helps the researcher to judge the appropriateness of the flow of questions in the research instrument and identify any improvement areas at an early stage of the study.
- It assists the researcher to judge the competence of instructions for the participants.

- It helps to identify any inappropriate questions contained in the research instrument.
- It assists the researcher to become familiar with the procedures in the research protocol and to decide between two competing study methods – whether to use self-administered questionnaire, or interviews or both.
- It is a crucial phase in the research project to assess the validity and reliability of the desired information before embarking on the main data collection.

Based on the points highlighted above, the researcher of this study also conducted a pilot study questionnaire and put its findings into consideration in order to develop the main questionnaire and interview questions to collect data for the research analysis. However, the data from the pilot study was not used as part of final data collection for the final data analysis.

The initial draft of the pilot study questionnaire was divided into three sections. The first section was designed to capture the respondent's demographic characteristics, the expectation of the staff from risk management in their banks, and how vital they consider risk management practices within their banks. The second section highlighted and designed to investigate various types of risks currently faced by the bank and risk management challenges faced in commercial banks in Nigeria; the third section was to establish those factors that contribute to effective risk management practices based on the thirty-five critical success factors extracted from different kinds of literature. The study was carried with ten (10) staff each from three (3) major commercial banks in Nigeria. The feedback from the participants serves as an eye-opener to refine and change the researcher’s idea on methods of data collection.

However, the researcher initial idea was to used questionnaire method of data collection only, but in agreement with the supervisory team after various reviewed and deliberation based on the participant's comments, we came into an agreement to separate the questions and use both the interviews and questionnaire methods of data collection to complement each other. The interviews focused mainly on each of the head of risk management personnel in all the twenty-two commercial banks in Nigeria and the questionnaire focused on other staff within the risk management department in the same twenty-two commercial banks.

The reason for this decision was due to an enormous number of questions contained in the pilot study questionnaire, which led to an average response rate of 50%. Thirty questionnaires were sent out via emails to ten staff each from three major commercial banks in Nigeria. Seven (7) responses received from bank 1, three (3) from bank 2 and five (5) from bank 3, which total to fifteen (15) responses out of 30. Though 50% response rate is acceptable according to Symon and Cassell (2012) and Saunders et al. (2012, p.421), it seems average, and the researcher envisages it might reduce further in the future study. Therefore, the researcher decided to use self-delivery and self-collection questionnaire method to increase the response rate.

The researcher used Cronbach's Alpha test base on the data collected from the pilot study to test its reliability. Cronbach's Alpha test is considered being the most effective and commonly used statistical tool to assess the reliability of various variables (Santos, 1999). While validity is concerned with the credibility of the research, reliability is concern with the repeatability of research findings. Table 4.5 below shows the results of the reliability test of the pilot study.

Table 4.5: Cronbach's Alpha Test

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.746	.747	11

It is remarkable to note that reliability measures the variance in a measured score, which is due to the variability in the true score. Hence, using

Cronbach's Alpha test to test the reliability of the pilot study, the results generated reliability coefficient of 0.746 (74.6%) as shown above. Based on the rule of thumb, research with a value of at least 0.5 (50%) is considered to be reliable as postulated by Mooi and Sarstedt (2011). Therefore, the pilot study research conducted is considered reliable. Hence, the researcher developed confidence in the content and the wordings in the questionnaire, which help to form the main data instruments for both the interviews and the questionnaire methods of data collection.

However, Bryman and Bell (2015) considered validity as most critical condition of research. Various authors reckoned with four major types of validity: interpretive validity, descriptive validity, theoretical validity and generalisable validity (Campbell, 1957; Trochim and Donnelly, 2001; Ghauri and Gronhaug, 2005). Interpretive validity has to do with the degree of good judgement, understanding research respondents viewpoints, intentions and interpretation of correctness, while descriptive validity is concerned with the accuracy in reporting descriptive information, that is, the degree in which the real narrative of the research holds true. Theoretical validity refers to the extent to which the developed theoretical explanations from the study fits to the data, while the generalisable validity is concerned with the degree for which the research findings in one setting applies to another. That is the extent of generalising the research findings to other areas.

It is worth mentioning that all the empirical data used in the pilot study were collected through a questionnaire sent via email to the respondents and the data is not included in the main data analysis for this thesis. Also, the data are analysed systematically using various statistical tools and analysis. Hence, the reports are true to a large extent, with a high level of degree of interpretation and judgement of exactness. Additionally, the theoretical foundation of this research is based on the underlying objective and research questions. Therefore, the pilot study conducted is considered to be valid.

Considering the results generated from the pilot study and the comprehensive feedbacks received from the banking experts and comments from various academicians, including excellent support from the researcher's supervisory team, the study discovered that the developed instruments (interviews and questionnaire) are sufficient enough and capable to answer the research questions and fulfil the objective of this study.

4.6.3 Data Analysis Techniques

The study adopted both descriptive and inferential statistical analysis to analyse the questionnaire data. The researcher utilised descriptive statistics to describe the data, and inferential statistical analysis to test the research hypothesis. A general-purpose statistical software package, STATA, has been used to perform various statistical analysis regarding descriptive statistics, multiple regression analysis, perfect multicollinearity, homoscedasticity, and reliability and validity.

4.6.3.1 Descriptive Statistics

The descriptive statistics helps to describe the basic features of the data in the study. It provides the simple summaries about the sample and the measures and enables the data to be presented in a more orderly and user-friendly way (Oja, 1983; Miles et al., 1994; Bickel and Lehmann, 2012). The descriptive statistics according to Groebner et al. (2005) involve a measure of central tendency (such as mean, median, and mode) and measures of dispersion (standard variation, variance, and range). In order to explain the basic features of the collected data in this study, the researcher utilises descriptive statistics to calculate the mean and the variance for the independent variables in the study. The mean is measured to observe the average response and the variance analysis is used to measure the data variability.

4.6.3.2 Multiple Regression Analysis

Regression analysis could be defined as a set of statistical process for estimating the relationship among independent variables and a single dependent variable (Gujarati and Porter, 2010, p.21). It consists of various techniques for modelling and analysing numerous variables when the emphasis is on the relationship between one or more independent variables and a dependent variable. Regression analysis enables one to understand how the value of the dependent variable changes when any of the value of the independent variable varied, keeping other independent variables constant. It also helps to understand which among the independent variables are correlated to the dependent variable, and explore the types of relationship between them (Gujarati and Porter, 2010, p.21; Dougherty, 2016, p.85).

There are various techniques to carry out regression analysis, but the common methods are the ordinary least squares and methods of moment, which are parametric. In this case, the regression is defined in terms of a set of a number of unknown parameters that are estimated from the data. Whereas, the non-parametric regression denotes the techniques, which allow the regression function to lie in a specified set of functions that may be infinite-dimensional. Considering the fact that the ordinary least square is generally and a well-accepted method, which is common in usage in many relevant studies (Al-Tamimi and Al-Mazrooei, 2007; Gujarati and Porter, 2010; Abu Hussain and Al-Ajmi, 2012). This study has adopted ordinary least square (OLS) technique to test the significance of the relationship between the **independent's variables (the ten identified critical success factors)** and the **dependent variable (risk management practices)**, which can be illustrated in the following multiple regression equations below:

$$\boldsymbol{Y_i} = \boldsymbol{X}_{ij}\beta + \epsilon_i \qquad (1)$$

Where $\boldsymbol{Y}_i$ represents the risk, management practices for respondent *i,* and $\boldsymbol{X_{ij}}$ represents each of the identified factors j driving the risk management practices for respondent *i.* β represent the regression coefficients, which indicate the contributions of each critical success factor to the risk management practices, and ϵ_i is the error term of each respondent *i*.

However, equation (1) is based on the following underlying assumptions, according to Asteriou and Hall (2007).

1. There is a linear relationship between the dependent variable and the independent variables.

2. The independent variables are non-stochastic (that is, fixed numbers in repeated sampling).
3. There are no exact linear relationships among the values of the samples of the independent variables (perfect multicollinearity).
4. The error term is normally distributed
5. The error terms are independent (serial correlation)
6. The variance of the error terms is constant (homoscedasticity)
7. The mean of the errors is zero
8. There is a variance among the independent variable

4.6.3.3 Perfect Multicollinearity

Collinearity refers to the association between two independent variables. Two variables are said to be perfectly collinear if there exists an exact linear relationship between the variables. Multicollinearity is a situation whereby two or more independent variables in the multiple regression model are highly linearly correlated. There exists perfect multicollinearity if the correlation between two or more sets of independent variables is equal to 1 or -1, that is, there are exact linear relationships among the independent variables (Farrar and Glauber, 1967; Groebner et al., 2005; Gujarati and Porter, 2010; Dougherty, 2016).

There are two common methods of testing the multicollinearity between the independent variables, according to Groebner et al. (2005). These are the correlation coefficient and variance inflation factor (VIF). Though there is no specific rule in the literature that stipulates the standard coefficient value for multicollinearity, Gujarati and Porter (2010) propose that if the value of variance inflation factor is less than 10, there is no problem of multicollinearity. Contrary to this, Groebner et al. (2005) suggest that the value of the variance inflation factor should be less or equal to 5 to avoid the problem of multicollinearity. However, the researcher adopted these two methods with tolerance values in order to test if there exists any multicollinearity among the identified factors (results can be found in the next chapter - chapter 5, called data analysis).

4.6.3.4 Homoscedasticity

Two or more random variables are said to be homoscedastic if they have the same variance. This is one of the standard linear regression model assumptions, and it is also known as homogeneity of variance. This assumption means that the variance around the regression line is the same for all values of the independent variable. Homoscedasticity problem occurs when the variance of the error terms is constant (Gujarati and Porter, 2010, p.274). In order words, if the error terms have the same value, it means that the variance is the same for different samples despite being taken from different populations.

Many studies have shown that heteroscedasticity is usually found in cross-sectional data. Therefore, in a cross-sectional data like the one adopted in this study, the error terms are usually heteroscedastic (Beck and Katz, 1995; Westerlund, 2007; Gujarati and Porter, 2010, p.275).

Homoscedasticity assumptions can be checked using the following test:

- Brown-Forsythe Test
- Hartley's Fmax Test
- The Breusch-Pagan Lagrange Multiplier (LM) Test
- Levene's Test

The researcher used the Breusch-Pagan Lagrange multiplier (LM) test because it is the most common and easy to understand, among others. (The results can be found in the next chapter - chapter 5 called data analysis)

4.6.3.5 Reliability and Validity

Bryman and Bell (2011, p.158) emphasise that for research and testing, the word reliability implies consistency of a measure or a concept, that is, the ability for research or test to be repeatable. The purpose of checking for the reliability of data is to reduce the possibility of obtaining biased results. There are several statistical tools used to check the reliability of measures, among them are Cronbach's Alpha (a measure of internal reliability for tests with multiple possible answers); and Kuder-Richardson 20 (measures internal reliability for the binary test – that is, one with right or wrong answers). Internal consistency is a measure of how well a test is measuring what it's intended to measure. It thus measures the consistency of responses across all the questions from the questionnaire. (Kimberlin and Winterstein, 2008; Gujarati and Porter, 2010; Saunders et al., 2012, p.430).

As earlier mentioned in the pilot study in section 3.6.2.2, Cronbach's Alpha test is considered the most effective and commonly used statistical tool to assess the reliability of various variables with alpha value lies between zero to one. The higher the alpha value, the better the reliability (Santos, 1999; Saunders et al., 2012). This study has utilised Cronbach's Alpha test to measure the reliability of the items used (The results can be found in the next chapter - chapter 5 called data analysis).

Validity implies that a test is accurately measured what it is supposed to. A test is said to be valid if it measures what it is supposed to (Golafshani, 2003; Borsboom, Mellenbergh and Van-Heerden, 2004). It is a way to measure if the research was done right? To ensure this, the distributed questionnaire was given to the respondents to complete it at their own comfort and ease in order to minimise the issue of errors. It also gives the respondents enough time to think about the questions and provide adequate answers.

4.7 Conclusion

This chapter specified the pathway by which the study research questions could be addressed. It described the research philosophy, the research approach, research strategy, research design, and research population and sampling. The chapter also justified different data collection methods and analytical techniques and procedures adopted for this study. The study embraced a pragmatic philosophical position and was motivated by objectivism. The research also adopted deductive reasoning and used mixed methods research strategy in which qualitative research has a supplementary role in facilitating quantitative research.

It is worth mentioning that the assumptions of multicollinearity and reliability focus on data screening and sorting that have also been fulfilled successfully. A detailed discussion on multiple regression analysis and results is presented in the next chapter, that is, research data analysis.

Chapter Five: Research Analysis

5.0. Introduction

The previous chapter outlined and discussed in detail the research methodology and the procedures used in this research. In this chapter, the empirical data collected from both interviews and self-completion questionnaires will be analysed and presented. This chapter focuses on both the qualitative and quantitative analysis of the data collected from the interviews conducted and the self administered questionnaires with commercial banks in Nigeria. The first section of this chapter covers the qualitative analysis to answer the first two research questions, and the later part extensively discusses and presents the quantitative analysis and results to answer the last research question of the research objectives.

The three research questions from section 1.1 in chapter one are:

1. What are the major risks facing the commercial banks in Nigeria?
2. What are the risk management challenges faced in commercial banks in Nigeria?
3. What factors contribute to effective risk management practices in the Nigerian banking system?

The next section discusses the analysis of the interview conducted with the heads of a risk management unit in nineteen (19) out of twenty-two (22) commercial banks in Nigeria.

5.1 Interview Data Analysis and results

As mentioned in section 4.6.1, the interview questions were purposely designed to answer the research questions and gain a better understanding of risk management issues in commercial banks in Nigeria. The researcher developed an exact list of interview questions. For the purpose of analysis, Table 5.1 below shows the question from the interviews conducted where the respondents were asked to indicate various types of risk faced by their bank. In order to answer the first research question, the respondents were asked to specifically identify five (5) major risks from the previous list they already highlighted.

Table 5.1: Question from the Interview

Q4. Please highlight by ticking either Yes or No the various types of risks currently faced by the bank

S/N	***Risk Type***	***Yes***	***No***		***Risk Type***	***Yes***	***No***
1	*Market Risk*			*10*	*Technology Risk*		
2	*Solvency Risk*			*11*	*Commodity Price/Equity Risk*		
3	*Interest Rate Risk*			*12*	*Sovereign/Country (Political) Risk*		
4	*Liquidity Risk*			*13*	*Off-balance Sheet Risk*		
5	*Foreign-Exchange Risk*			*14*	*Strategic Risk*		
6	*Operational Risk*			*15*	*Reputation Risk*		
7	*Regulatory / Legal Risk*				***Any Other (Please Specify)***		
8	*Credit Risk*						
9	*Counterparty Risk*						

Q5. Please position the top five risks in respect of bank's risk exposure from the above table.

I. ___________________________ ***II.*** __________________________

III. __________________________ ***IV.*** __________________________

V. __________________________

Table 5.2 shows the summary of the interview responses (Appendix 3).

Table 5.2: Summary of Interview Responses

Respondent	Top 5 Risks	Critical Risk Management Issues	Factors Peculiar to Risk Management Practices	Other Critical Success Factors	Comments or suggestions
R1	country risk, regulatory risk, operational risk, credit risk and legal risk	business failure, which can be attributed to bad infrastructures and cyber-attacks, poor economic policies, non-willingness to meet up with obligations on the part of the customer, bad management of resources and our judicial system as regards getting judgement on sticky risk assets, and nepotism by senior management, and corrupt legal system within the commercial banks in Nigeria.	customer involvement, change management, top management commitment, senior management support, level of investment, and trust.	insider connivance.	None
R2	Credit risk, operational risk, solvency risk, interest rate risk and liquidity risk.	The inability to effectively demonstrating the value of risk management to the Board	Use of IT, standardisation of processes, training and development, operational involving internal audits and control, trust, and level of employee's specialization	Sound corporate governance, lack of robust risk management framework, cyberattacks and unauthorised access to information resources, non-compliance with laid down risk management policies and procedures / complacency in carrying out risk related due diligence, nepotism by senior management and corrupt legal system within the industry, and lack of commitment from boards and senior management to risk management	Risk management practices should be a dynamic thing and it is important for all banks to have a periodic evaluation of their risk management process and respond to market requirement.
R3	Credit risk, liquidity risk, off-balance sheet risk, interest rate risk and solvency risk.	Governance, corrupt legal system in banking, regulatory oversight, cyberattacks and unauthorised access to information resources, impact of macroeconomic environment, bad credit culture and credit management, nepotism by senior management and impact of rapid technological advancement	Customer involvement, change management, top management commitment, senior management support, operation involving internal audits and control, trust, level	Insider abuse	CBN needs to increase their oversight function of the bank. This will be a step in the right direction in deepening risk management practices in

Respondent	Top 5 Risks	Critical Risk Management Issues	Factors Peculiar to Risk Management Practices	Other Critical Success Factors	Comments or suggestions
			of investment and standardization of processes		banks.
R4	Credit risk, liquidity risk, interest rate risk, foreign exchange risk and counterparty risk	Inexperience risk managers, corrupt legal system in banking, poor credit culture and its management, boards and management not committed to risk management, nepotism by senior management, ineffective risk management framework, staff in other units not embracing risk management cultures, cyberattacks and unauthorised access to information resources.	Change in corporate culture, customer involvement, information technology, trust and involvement of bank governing bodies and readiness to widely support changes in the bank management	Bankwide risk management culture	Management has a critical role to play cementing risk management practices in their banks
R5	Liquidity risk, credit risk, interest rate risk, operational risk and regulatory risk.	Executive buy-in and support, non-compliance with laid down risk management policies and procedures, nepotism by senior management, data availability, quality and analytics and cyberattacks, embedding risk management culture across the organisation - getting the business and process owners to take responsibility for risks issues and management, and availability of risk management technology that recognise local business dynamics.	Use of information technology, customer involvement, top management commitment, quality management system, change in corporate culture and trust	Board commitment and buy-in	It is vital for the CBN to have periodic audience with boards of various and sensitise them on the importance of risk management
R6	Credit risk, liquidity risk, interest rate risk, counterparty risk and reputational risk.	Paucity of capital required to enable business and economic growth, ccyberattacks that facilitate unauthorized access to critical information resources, conduct risks that indicate unethical employee activities that erode public confidence, delayed and corrupt legal system, non-compliance with laid down risk management policies and procedures, internal and external fraud leading to actual losses that impact negatively on earnings, unfavourable economic policies that culminate in stringent business environment and stifle growth, nepotism by senior management, lack of support and commitment from boards and senior management to risk management and lack of credit	Trust, operational issues involving internal audit and control, leadership style of chief risk officer, automation, and level of investment.	None	No

Respondent	Top 5 Risks	Critical Risk Management Issues	Factors Peculiar to Risk Management Practices	Other Critical Success Factors	Comments or suggestions
		management.			
R7	Market risk, interest rate risk, operational risk, regulatory and credit risk	weak corporate governance in banks and other financial institutions, poor Credit culture by Nigerians, weak Support from the Nigerian Government to enact acts that would improve the credit culture, delayed and corrupt legal system. lack of information sharing among Banks and cyberattacks, un-updated information and non-provision of quality data to the Credit Bureaus by the financial institutions, non-compliance with laid down risk management policies and procedures, inadequate oversight capacity of the regulator, nepotism by senior management, and not learning from previous mistakes by financial institutions.	Egalitarian culture, use of continuous improvement systems, use of information technology, customer involvement, trust, operations involving internal audits and control, and bank operation under a relevant risk management system	Ownership structure	No
R8	Market risk, solvency risk, interest rate risk, liquidity risk and operational risk.	Lack of effective Corporate Governance, management Override of Key Risk Management policies and nepotism by senior management. knowledge gap, inadequate investment in IT infrastructure and apathy to the concept of Risk Management especially by the business-facing personnel	Less bureaucratic structure, trust, operational involving internal audits and control, automation and level of investment	None	No
R9	Credit risk, operational risk, interest rate risk, liquidity risk and market risk.	Nepotism by top management, credit risk and operational risk including the emerging cyber risk, poor credit management, delay and corrupt legal system, lack of commitment from boards and senior management, and non-compliance with laid down risk management policies and procedures	Use of information technology, involvement of customer, investment level, bank operation under a relevant risk management system and trust	Credit score and Credit bureau	Risk management practices should the collective responsibility of everyone in the bank, not just those of us in this department.
R10	Market risk, operational risk,	Level of awareness and acceptable risk culture, nepotism by senior executives, non-compliance with laid down risk management policies	-Informatisation, trust, involvement of bank governing	Involvement of customers	Risk management practices is often

Respondent	Top 5 Risks	Critical Risk Management Issues	Factors Peculiar to Risk Management Practices	Other Critical Success Factors	Comments or suggestions
	credit risk, liquidity risk and interest rate risk	and procedures, qualified and experienced risk professionals, lack of support from boards and senior management to risk management, cyberattacks and unauthorised access to information resources, lack of credit culture and credit management, and varying levels of risk management practice and investment across industries	bodies, involvement of management, level of investment and operations involving internal audits and control		overlooked, but it is very essential. As such, it is vital for every bank to deepen their risk management strategies
R11	Market risk, credit risk, interest rate risk, legal risk and liquidity risk	Management of credit risk, capital adequacy, risk contribution, portfolio planning and management, operational Risk management/ Challenges in Operational Risk Management, cyberattacks and unauthorised access to information resources, delay and corrupt legal system in the banking sector in Nigeria, nepotism by senior management, management of Market & liquidity risk, and non-compliance with laid down risk management policies and procedures	Use of information technology, customer involvement, top management commitment, management support, trust, and bank operation under a relevant risk management system	Board support	No
R12	Credit risk, operational risk, liquidity risk, interest rate risk and operational risk	Changing regulatory landscape and intervention, credit risk with rising non-performing loans as a result of inefficient credit culture and management, non-compliance with laid down risk management policies and procedures, use of information technology , lack of support from boards and senior management to risk management, data privacy risk and poor legal system in Nigeria, cyber security risk, people risk and nepotism by top management, geopolitical issue/conflicts, vendor management risk, and possibility of litigation and legal proceedings on businesses	Trust, customer involvement, adequate financial support, management commitment, leadership role of CRO and operations of internal audits and control	Buy-in of other staff	No
R13	Credit risk, market risk, operational risk, interest rate risk, and foreign	Corporate governance, nepotism by senior management and executives, credit risk. delay and corrupt legal system, lack of management support and commitment, non-compliance with laid down risk management policies and procedures, cyber security risk and access to information resources, liquidity risk, and strategic risk	Customer involvement, role of CRO, trust, automation, process standardization, management commitment and adequate financial resources	Comprehensive customer database, especially those with credit facility	No

Respondent	Top 5 Risks	Critical Risk Management Issues	Factors Peculiar to Risk Management Practices	Other Critical Success Factors	Comments or suggestions
	exchange risk	management			
R14	Market risk, credit risk, interest rate risk, operational risk and regulatory risk	Credit risk, liquidity risk, reputation risk, operational risk, information technology risk, human resources risk / nepotism, legal risk & Regulatory risk, and market risk.	Egalitarian culture, use of ICT, trust, involvement of internal audit and control, customer involvement, standardise process, management support, and top management commitment	Modelling risk management	No
R15	Market risk, credit risk, operational risk, liquidity risk and interest rate risk	Nepotism by senior management, lack of operational risk management, lack of support from boards and senior management to risk management, corrupt legal system, poor credit culture and management of credit culture, non-compliance with laid down risk management policies and procedures, lack of commitment from top management and boards, cyberattacks and unauthorised access to information resources, and data availability.	Use of information technology, senior management support, change in corporate culture, strategic alignment, level of investment, trust, bank operation under a relevant risk management system, and automation	Legal framework and board involvement in risk management	No
R16	Market risk, interest rate risk, liquidity risk, regulatory/legal risk, and credit risk	Cyber security risk and access to information resources, delay and corrupt legal system in banks, nepotism by senior management, poor credit culture and management of credit culture, lack of support from boards and senior management to risk management, and non-compliance with laid down risk management policies and procedures.	Use of IT, customer involvement, trust, automation, involvement of the board, management support, CRO's leadership role and level of investment	Regulatory body involvement	Risk management is collective decision and all encompassing. So, all hands must be on deck to achieve effective risk management practices
R17	Credit risk, market risk, liquidity risk,	Lack of effective corporate governance, poor credit culture and management of credit culture, delay and corrupt legal system in banking sector in Nigeria, data availability and lack of information	Egalitarian culture, use of information technology, customer involvement, boar	Synergy among the bank's departments	No

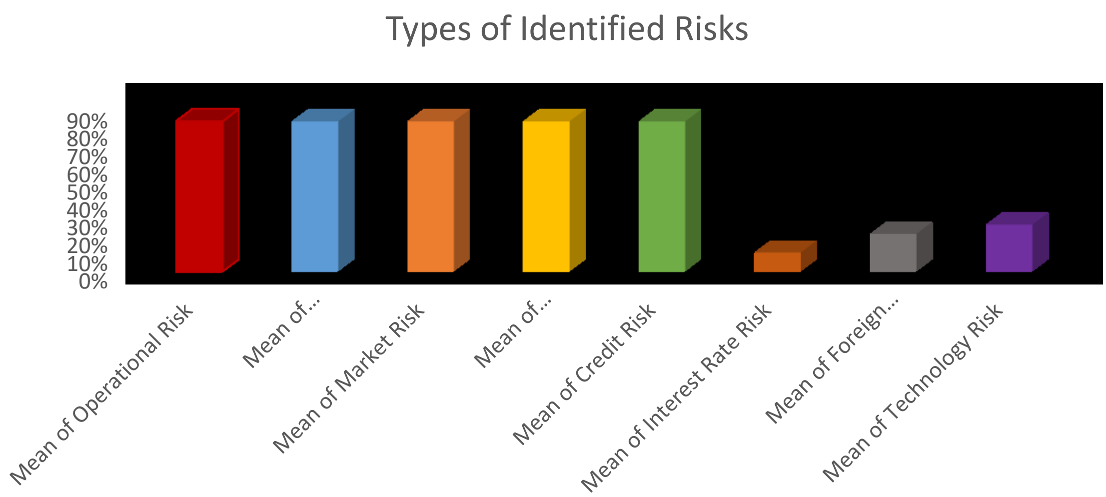
Respondent	Top 5 Risks	Critical Risk Management Issues	Factors Peculiar to Risk Management Practices	Other Critical Success Factors	Comments or suggestions
	operational risk and regulatory risk	sharing among banks, information technology risk, non-compliance with laid down risk management policies and procedures, nepotism by senior management, and cyber security risk and access to information resources.	involvement, management support, trust and informatization		
R18	Market risk, credit risk, solvency risk, operational risk and interest rate risk.	Nepotism by senior management, use of information technology, lack of support from boards and senior management to risk management, data privacy risk, delay and corrupt legal system in Nigeria, non-compliance with laid down risk management policies and procedures, and cyber security risk	Customer involvement, trust, leadership role of CRO, training and development, support from management staff, commitment of the board, and automation.	Customer integrity	No
R19	Credit risk, market risk, interest rate risk, operational risk and regulatory risk	Nepotism by senior management, boards and management not committed to risk management, impact of rapid technological advancement, non-compliance with laid down risk management policies and procedures, staff not embracing risk management cultures, cyberattacks and unauthorised access to critical information resources and capital adequacy, and poor credit culture and credit management	Top management commitment, board support, customer involvement, trust, informatization, operations involving internal audit and control, and automation	None	No

Source: Self designed

Based on the response from each of the head of risk management department of the nineteen banks interviewed, the results of the interview shows that approximately 84.2% of the respondents, representing sixteen heads of risk management identified five key risks: Operational Risk, Credit Risk, Regulatory/Legal Risk, Sovereign/Country (Political) Risk and Market Risk. Similarly, approximately 26.3% of the respondents identified technology risk, 21.05% identified foreign exchange risk while 10.53% identified interest rate risk as part of their bank's risk exposure, as shown in Figure 5.1.

In related research carried out by Ayodele and Alabi (2014) to examine the risk management in Nigeria banking industry using First Bank of Nigeria PLC (FBN) as a case study being the biggest and the oldest among the twenty-three (23) banks operating in Nigeria economy as at the time of their study. Their study also used data collected from the primary source through the distribution of a questionnaire to respondents in the bank. Ayodele and Alabi (2014) research analysis and findings also identified operational risk, market risk, and system risk as major risks in Nigerian banking industry that needed to be managed in order to improve banking performance and profitability. Their findings also revealed that credit risk, market risk, and operational risk significantly affect Nigeria banking operations, in which forgeries and fraud play an adverse role in banking daily operations.

Figure 5.1: Types of Risks



Source: Data collection from interview

Adeusi, Akeke, Adebisi and Oladunjoye (2014) in their study on risk management and financial performance of banks in Nigeria, documented that banking risks can emerge from the credit, market and operations. Santomero (1997) also maintains that banking industry has long viewed the problem of risk management as the need to control four major risks: credit risk, interest rate risk, foreign exchange risk, and liquidity risk. Similarly, Kolapo, Ayeni and Oke (2012) carried out an empirical investigation into the quantitative effect of credit risk on the commercial banks' performance in Nigeria and submitted that banking industry in Nigeria is continually faced with credit risk, which is the possibility of loss due to credit events. Furthermore, Abu Hussain and Al-Ajmi (2012) in their study on risk management practices of conventional and Islamic banks in Bahrain highlighted credit, liquidity and operational risk as the most important risks facing both conventional and Islamic banks in Bahrain. Also, Owojori, Akintoye and Adidu (2011) in their study on the challenge of risk management in Nigeria banks in the post-consolidation era, identified various risks that arise in the course of business which bankers should be able to control. These risks are credit risk, liquidity risk, reputation risk, legal risk, operational risk, customer satisfaction risk, leadership risk, and information technology risk. They, however, identified regulatory risk, industry risk, government policies risk, sovereign risk and market risk as exogenous to the banking system, which tends to pose the greatest control problem to banking performance.

In view of the responses of the heads of risk management in the Nigerian banking industry and the submission of many scholars in the related studies, the researcher found that Operational Risk, Credit Risk, Regulatory/Legal Risk, Sovereign/Country (Political) Risk and Market Risk ***are the major risks facing commercial banks in Nigeria***.

The respondents were also asked in open-ended questions in part II of the interview questions to discuss those critical issues in risk management, particularly as it relates to their banks. The respondents outline various risk management challenges facing the commercial banks in Nigeria (**as shown in table 5.2 above. See also Appendix 3 for full details of responses**).

Highlighted issues include lack of effective corporate governance, lack of robust risk management framework, non-compliance with risk management policies, nepotism by top management, the impact of rapid technological advancement, lack of commitment from boards and top management to risk management. Also, staff in other units not embracing risk management cultures, data availability/lack of information sharing among banks, poor credit culture/management of credit risk, lack of effective operational risk management, delayed/corrupt legal system, cyber-attacks/unauthorised access to critical information resources and capital adequacy are other critical issues identified in Nigerian commercial banks by the respondents. Their responses collaborate with the theory on risk management issues in commercial banks in Nigeria in section 3.2.5 that illustrated that commercial banks in Nigeria are facing different risk management issues, which can be people related, policy-related, and resources related (Soludo, 2004; Adeleye, Annansingh and Nunes, 2004).

The respondents identified six major issues: non-compliance with risk management policies, nepotism by top management, lack of commitment from boards and top management to risk management, poor credit culture/management of credit risk, delayed/corrupt legal system, and cyber-attacks/unauthorised access to critical information resources.

The respondents overwhelmingly admitted that nepotism by top management is a major risk management challenge facing the commercial banks in Nigeria, which is a typical example of people related issues, as mentioned by literature in section 3.2.5. All the nineteen (19) heads of risk management, representing 100% of the respondents interviewed acknowledged that this is a major issue. Fourteen (14) out of 19 heads of risk management department representing 73.68% of the respondents claimed that non-compliance with risk management policies is one of the risk management challenges in Nigeria banking system. This is also part of policy-related issues, as mentioned in the literature. Ten (10) respondents representing 52.63% identified lack of commitment from boards and top management to risk management (people related issue). Twelve (12) respondents representing 63.16% identified poor credit culture/management of credit risk (resources related issue), and inefficient legal system (policy-related issue), while 17 respondents (that is, 89.47%) asserted that cyber-attacks/unauthorised access to critical information resources (resource-related issues) contributed to the major risk management challenges facing commercial banks in Nigeria.

The graphical representation of their responses is given in Figure 5.2:

Figure 5.2: Risk Management Challenges in Commercial Banks in Nigeria.

Source: Data collection from interview

In support of these findings, Ugoani (2012) carried out a research to investigate the influence of poor credit risk management on bank failures in Nigeria, and highlighted that credit risk management is one of the most essential banking functions that involve the appraisals of requests for banking facilities, which is critical to bank failure or survival. The results of this research revealed that poor management of credit risk is a major challenge in the banking industry in Nigeria and has a great influence on bank failure or success. As highlighted in the literature review in chapter two, Olamide, Uwalomwa and Ranti (2015) in their study investigated the effect of effective risk management on banks' financial performance stated that the financial performance cannot be explained away by the compliance or non-compliance to Basel's regulation by financial institutions, but could be as a result of the accumulation of minor difficulties and inconsequential malfunction of the individual actors resulting in a massive breakdown. In addition, the study of Dugguh and Diggi (2015) to review the strategies adopted by financial service institutions in Nigeria with reference to commercial banks in order to provide solution for more efficient and effective banking operations revealed that risk is one of the greatest challenges facing commercial banks in Nigeria, which need to be given a top priority. The paper also revealed that Nigeria commercial banks had not been properly implementing their risk management strategies, which has led to various financial quandary experienced by the banking industry. Hence, Dugguh and Diggi (2015) recommended the need for bank managers to seek the support of top management and consider risk management as a fundamental element of corporate strategy.

Based on the interviews conducted with the heads of risk management in various commercial banks in Nigeria and the reviews from different kinds of literature in chapter two, the results of the findings revealed six main issues as ***the major risk management challenges facing commercial banks in Nigeria***. These are non-compliance with risk management policies, nepotism by top management, lack of commitment from boards and top management to risk management, poor credit culture/management of credit risk, delayed/corrupt legal system, and cyber-attacks/unauthorised access to critical information resources.

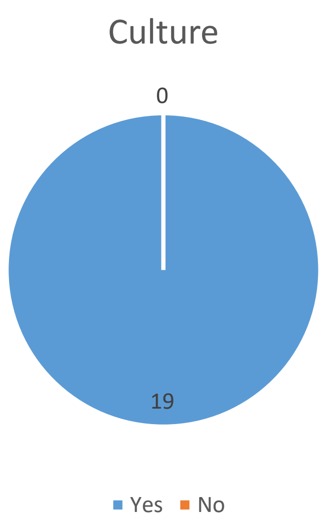
5.1.1 Critical Success Factors of Effective Risk Management Practices

The interview session explores the views of respondents on the critical success factors of effective risk management practices in the commercial banking sector in Nigeria. While these factors identified from the extant literature on risk management, a review of the extant literature brought up thirty-five (35) factors. These factors were comprehensively discussed in section 2.3.1. These factors were presented to heads of risk management in nineteen (19) banks in Nigeria. However, a review of the responses of various heads of risk management identified only ten (10) factors as those factors driving risk management practices in their respective banks. These factors are culture, information technology, customer involvement, organisation structure, top management support and commitment, strategic alignment, training and development, trust, communication, internal audit, and compliance.

5.1.1.1 Culture

Figure 5.3 shows that the respondents overwhelmingly identified culture as a critical factor in risk management in Nigerian banks as all the nineteen heads of risk management selected this factor. A review of the extant literature on risk management shows that a strong risk management culture is required for the efficient execution of risk management process and tools (Mongiardino and Plath, 2010; Karlsen, 2011). Such culture entails general awareness of risks and the potential contribution of their management, acceptance and commitment to risk management, and coordination and communication between stakeholders (Project Management Institute, 2008; Teller and Kock, 2013). Furthermore, there is a consensus that cultural failure, which allows for uncontrolled and excessive risk-taking in banks, as well as, loss of focus on end clients was integral parts of the last financial crisis (Power, Ashby and Palermo, 2013).

Figure 5.3: Culture

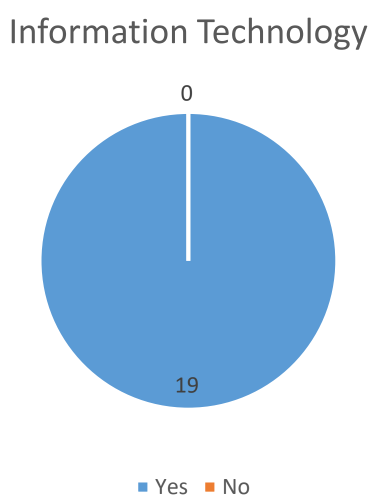


Source: Data collection from interview

5.1.1.2 Information Technology

Figure 5.4 shows that all the nineteen respondents considered information technology a key driver of risk management in Nigerian banks. The advances in information technology have spurred a revolution in the risk management practices in banks in the last two decades (Frame and White, 2014). Such advances have changed tremendously and affected how business is conducted, how investors gather information, and how banks disseminate information and other financial transactions. While this has resulted in positive developments regarding new product developments and financial engineering, it has gradually increased risk.

Figure 5.4: Information Technology

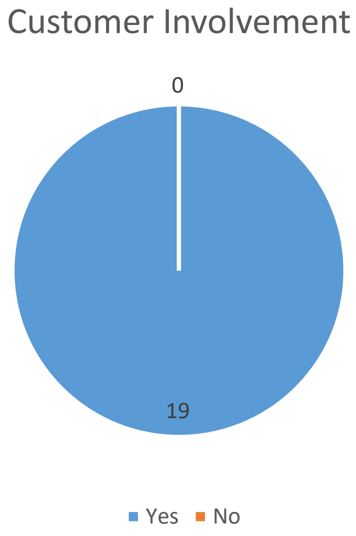


Source: Data collection from interview

5.1.1.3 Customer Involvement

Figure 5.5 shows the responses of respondents regarding the impact of customer involvement on risk management. The respondents jointly agreed that customer involvement is a critical factor in risk management in Nigerian banks. It is increasingly evident that customers are crucial in the risk management chain in banks. Hence, their involvement in the process will significantly enhance the effectiveness of risk management in Nigerian banks.

Figure 5.5: Customer Involvement

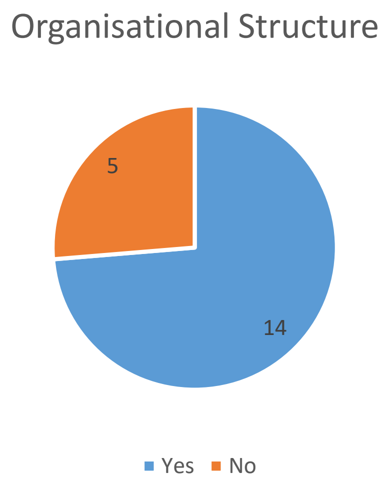


Source: Data collection from interview

5.1.1.4 Organisation Structure

Figure 5.6 shows that fourteen (14) out of the nineteen (19) respondents considered organisation structure as a critical factor of risk management in Nigerian banks, while five (5) respondents feel otherwise. Evidence shows that different organisation structure in banks have different capacity for information production, transmission and processing and have unique properties of facilitating transparency (Roy, 2008). This has influenced the proliferation of literature exploring the impact of organisation structure on the risk management in banks.

Figure 5.6: Organisation Structure

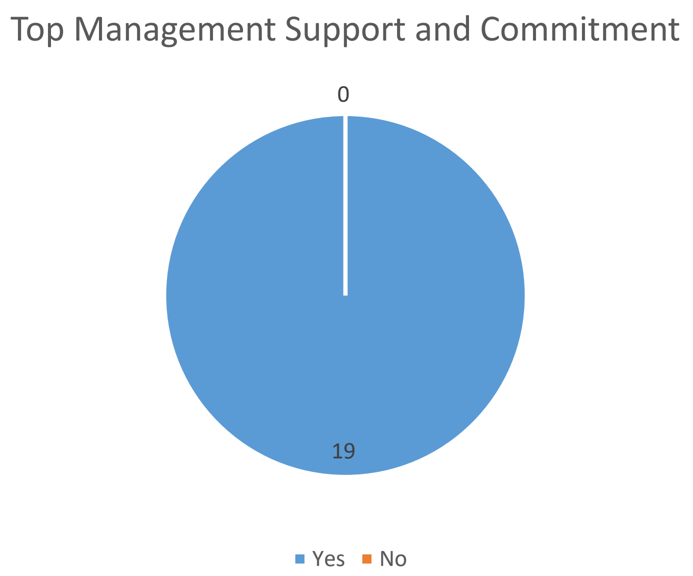


Source: Data collection from interview

5.1.1.5 Top Management Support and Commitment

Figure 5.7 reveals that respondents overwhelmingly considered top management support and commitment a critical factor of risk management in Nigerian banks. They considered top management support and commitment to be critical in the emplacement of risk management in banks, with such support including the driving of risk management vision, as well as, crafting the risk management strategies and policy in various banks.

Figure 5.7: Top Management Support and Commitment

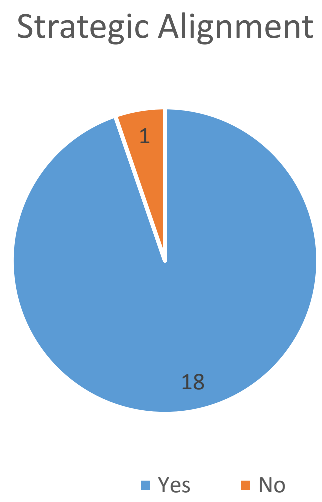


Source: Data collection from interview

5.1.1.6 Strategic Alignment

Figure 5.8 shows that eighteen (18) out of the nineteen (19) respondents were convinced that strategic alignment is a factor driving risk management in Nigerian banks. Strategic alignment is considered a core process in banks considering its impact on linking its structure and resources with its business environment and strategy. More so, such alignment assists in optimising the contributions of the process, people, and inputs to the realisation of measurable objectives.

Figure 5.8: Strategic Alignment

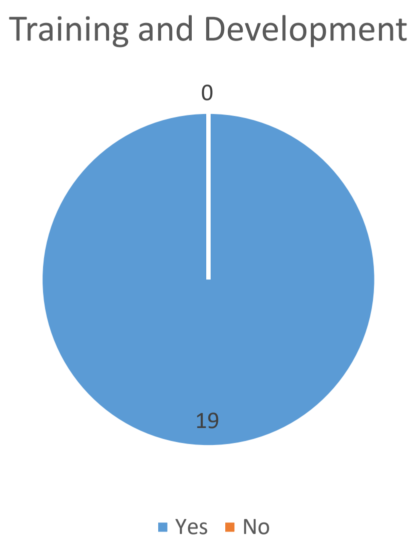


Source: Data collection from interview

5.1.1.7 Training and Development

Figure 5.9 shows the responses on training and development. It shows that all the nineteen (19) respondents considered training and development as a critical factor of risk management. Training and development are crucial in an organisation as evidence indicates that it leads to profitability while cultivating deepened positive attitude towards profit orientation, as well as, enhancing job knowledge and assist in identifying with the organisational goals for individuals (Tahir et al., 2014).

Figure 5.9: Training and Development

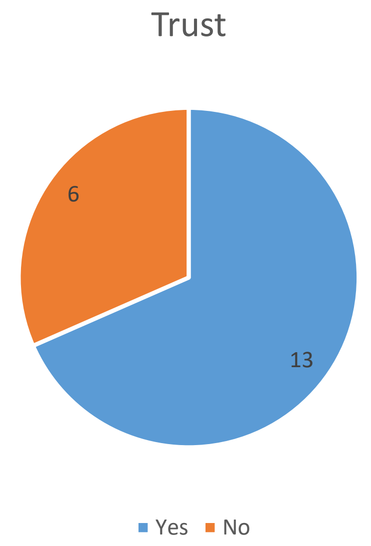


Source: Data collection from interview

5.1.1.8 Trust

Figure 5.10 reveals the responses of respondents on trust as a factor of risk management. The result shows that thirteen (13) respondents considered trust as a crucial factor of risk management while the remaining six (6) respondents think otherwise. Trust has been found to lead to relational commitment, and the extent of association between banks and their customers is crucial (Mukherjee and Nath, 2003). Such a relationship is even more required in risk management as it could eliminate potential risk in banking transactions

Figure 5.10: Trust

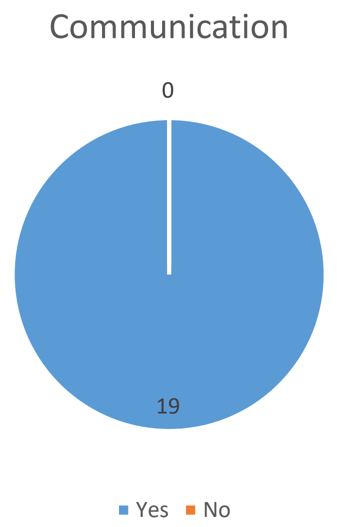


Source: Data collection from interview

5.1.1.9 Communication

Figure 5.11 shows that all the nineteen (19) respondents considered communication an essential element in risk management in Nigerian banks. Communication in risk management is essential as it assists in the dissemination of information and understanding about a risk management decision, and such information and understanding allow bank officials to make an informed decision.

Figure 5.11: Communication

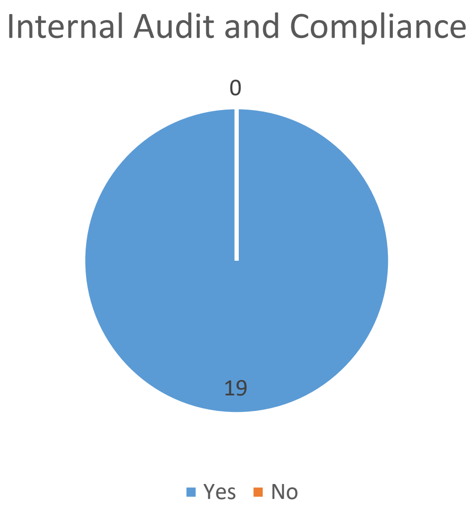


Source: Data collection from interview

5.1.1.10 Internal Audit and Compliance

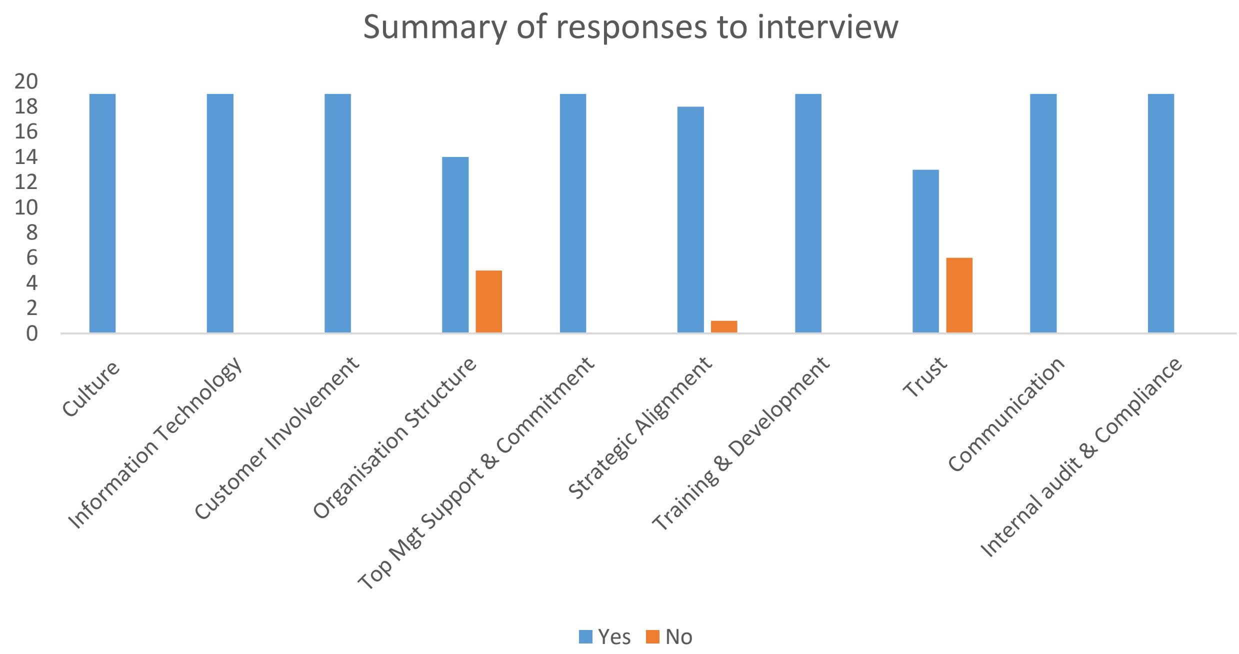
Figure 5.12 shows that all the nineteen (19) respondents identified internal audit and compliance as a risk management factor. Internal audit and compliance are vital functions in a bank as they strengthen the internal processes in banks and by extension, the risk management process.

Figure 5.12: Internal Audit and Compliance



Source: Data collection from interview

Figure 5.13: Summary of Interview Responses.



Source: Data collection from interview

5.2 Factor Analysis

A visual analysis of responses to these ten variables (factors) shows some similarity in pattern among the responses. Given this, a principal component analysis is deployed to extract vital information from these responses and express them as a set of new orthogonal variables called principal components (Abdi and Williams, 2010). The central idea of principal component analysis is to reduce the dimensionality of a data set in which there are many interrelated variables while retaining as much as possible of the variation present in the data set (Jolliffe, 1986).

The purpose of this factor analysis is to transform and reduce the ten factors into a new set of variables (the principal components), which are uncorrelated so that the first few retain most of the variation present in the ten variables. Hence, the objective is to find components or factors that are expressing the maximum information from the ten original factors. Table 5.3 gives descriptive statistics for the ten variables.

Table 5.3: Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Culture	19	1	0	1	1
IT	19	1	0	1	1
CI	19	1	0	1	1
OS	19	.7368421	.4524139	0	1
TMSC	19	1	0	1	1
SA	19	.9473684	.2294157	0	1
TD	19	1	0	1	1
Trust	19	.6842105	.4775669	0	1
COMM	19	1	0	1	1
IAC	19	1	0	1	1

Source: Data analysis from data collection

Note: (IT – Information Technology, CI – Customer Involvement, OS – Organisational Structure, TMSC – Top Management Support and Commitment, SA – Strategic Alignment, TD – Training & Development, COMM – Communication, IAC – Internal Audit & Compliance).

While there are nineteen respondents (19 banks out of 22 commercial banks in Nigeria), there is relative variability in their responses on organisational structure, strategic alignment and trust as evident in the standard variation of 0.4524, 0.2294 and 0.4776 respectively. This variability impacts on the mean of these three factors as shown in their mean value of 0.7368, 0.9474 and 00.6842, respectively. The minimum and maximum for most of the factors are one (1), and this is expected since we deployed a dummy response of one (1) for factors affecting risk management practices and zero (0) otherwise. Appendix 6a gives the full table of the correlation matrix of the ten factors.

From the correlation matrix (**appendix 6a**), there is no significant correlation among most of the factors. Apart from a significant correlation of 0.6225 between trust and organisational structure, as well as, correlation of 0.3944 between strategic alignment and organisation structure, and 0.3469 between trust and strategic alignment, there is no correlation between any other factors. This seemingly non-correlation among most of the factors suggests that we might only be able to compress trust and organisational structure into one factor, and possibly strategic alignment and organisational structure into another factor, or trust and strategic alignment into one factor. Appendix 6b gives the resultant principal component analysis.

The resultant principal component analysis (**appendix 6b**) shows the eigenvalues of the three correlated factors – trust, strategic alignment and organisational structure. However, it is only the first component that has eigenvalue above one (1.9211). However, additional component to the first component would yield 1.2169 while addition to the second component would yield 0.3296. Furthermore, while the proportion of variation explained by the first component is 64.04%, the second component explains 23.47% variation. The resultant cumulative effect shows that the first two components explain 87.51% variations in the data.

It is important to check the suitability of the data for factor analysis. Kaiser-Meyer-Olkin (KMO) test is a measure of this, and measure-sampling adequacy for each component variable in this study. **Appendix 6c** gives the KMO test for the measure of sampling adequacy for the three-correlated components.

The overall statistics of 0.6259 is a measure of the proportion of variance among the three factors - Trust, Strategic Alignment, and Organisational Structure. This shows that the correlation between these factors is 62.59%. Based on this, the study maintains all the ten factors for the next data collection (questionnaire) and analysis.

5.3 Questionnaire

The Questionnaire builds on the responses from the interview session, and it contains forty-seven (47) statements relating to the ten factors identified during the interview session, as well as, statements relating to risk management practices. The forty-seven statements were compartmentalised under eleven (11) themes, with each theme representing each identified risk management factors (**independent variables**) and risk management practices(**dependent variable**).

Apart from culture, information technology, and customer involvement with five statements each, other themes have four statements each. However, the mean score analysis is used to aggregate statements relating to each theme, with Table 5.4 showing the resultant summary of each theme.

The questionnaire is based on five-Likert scale, and this explains why the data evolves from 1 to 5 as depicts in the minimum and the maximum values. The general overview of the data can be done with both measures of central tendency and measures of dispersion.

Table 5.4: Descriptive Statistics

Variable	Observation	Mean	Variance	Skewness	Kurtosis
Culture	98	4.002041	0.0804082	0.9199598	4.094525
Information Technology	98	4.114286	0.1228866	0.2325743	3.574929
Customer Involvement	98	3.916327	0.1813802	-0.8089095	3.283798
Training & Development	98	4.214286	0.0463918	0.5694444	4.106481
Communication	98	4.104592	0.0385612	-0.3697026	2.410067
Top Management Support and Commitment	98	4.122449	0.047996	0.2622363	3.175107
Internal Audit & Compliance	98	4.352041	0.2948927	-0.4297842	2.380374
Strategic Alignment	98	4.155612	0.1926744	0.4728109	2.336845
Organisation Structure	98	3.581633	0.1131128	0.5389015	3.55899
Trust	98	4.19898	0.202267	0.4574759	2.189034
Risk Management Practices	98	4.19898	0.198401	0.2773031	2.119343

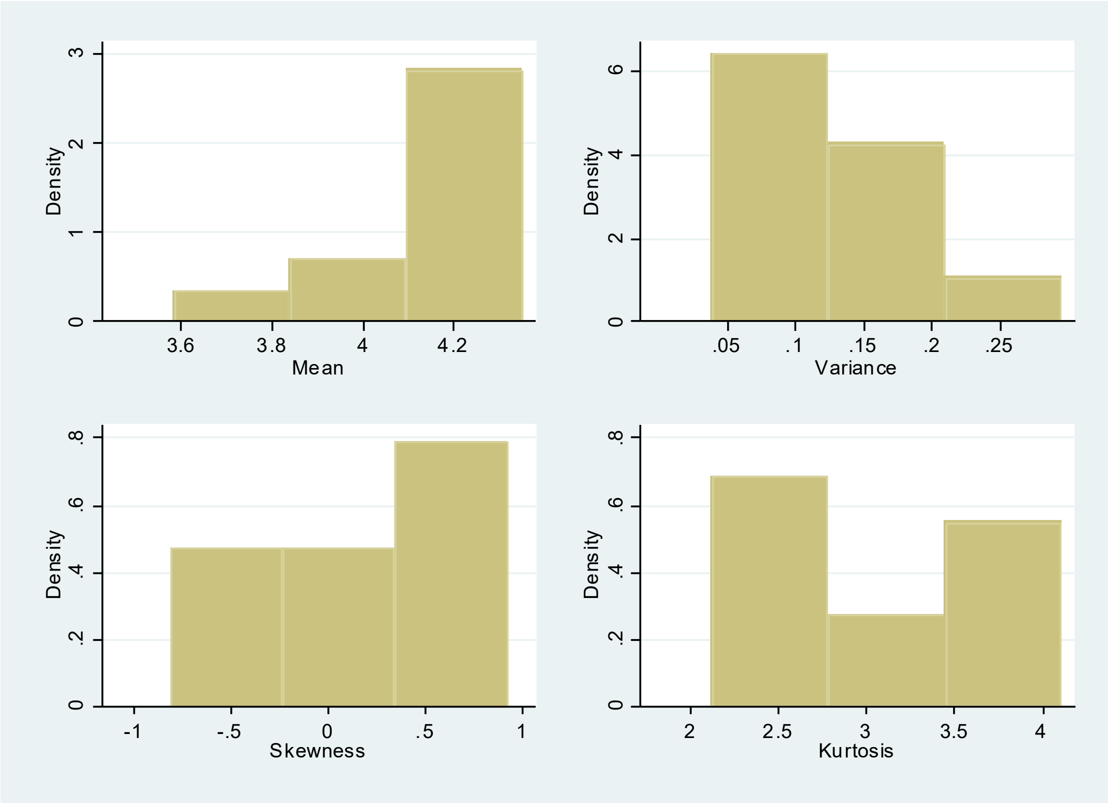
Source: Data analysis from data collection

A measure of central tendency is a summary that describes a variable with a single value, representing the centre of its distribution (Deshpande, Gogtay and Thatte, 2016). The mean, median and mode of a variable are measures of central tendency and offer a rough estimate of data clustering around the mid-point of the variable and indicating the central value. The mean values of all variable used in our model hover between 3.58 and 4.35, indicating approximately mean value for all the variable. Based on the five-Likert scale, this indicates that respondents were on the average agreed on all the comments in the questionnaire.

On the other hand, a measure of dispersion assesses the variation presents in a variable and offers an indication of the heterogeneity in the data (Deshpande, Gogtay & Thatte, 2016). Range, standard deviation, skewness and kurtosis are common measures of dispersion. The standard deviation is a measure of the dispersion of the variables. Apart from training and development, as well as trust, the variance of all the variables is between 0.08 and 0.2. Skewness measures the symmetry of the variable. Regarding skewness, communication and internal audit & compliance are negatively skewed with long-left tails and more lower values around their mean. However, other variables are positively skewed with long-right tails and higher values around their mean.

On the other hand, kurtosis measures whether a variable is light-tailed or heavy-tailed relative to a normal distribution. For kurtosis, communication, internal audit and compliance, strategic alliance, trust, and risk management practices are platykurtic with kurtosis less than three while other variables are leptokurtic with kurtosis higher than three as shown in Figure 5.14.

Figure 5.14: Measures of Central Tendency and Dispersion



Source: Data analysis from data collection

5.4 Reliability and Validity

The study recognises that reliability and validity are integral parts of research, and this influences the test of the two assumptions using Cronbach's Alpha test. Table 5.5 presents the result with a reliability coefficient of 0.6542. Given this, the study is considered reliable as Mooi & Sarstedt (2011) considered a value of at least 0.5 adequate for reliability.

Table 5.5: Cronbach's Alpha Test

```
Test scale = mean(standardized items)
Reversed item:  orgst

Average interitem correlation:      0.1468
Number of items in the scale:           11
Scale reliability coefficient:      0.6542
```

Source: Data analysis from data collection

As expected, the item-test correlations are roughly the same for all items. Specifically, Table 5.6 shows that each item-test correlation is approximately between 0.25 and 0.73

Table 5.6: Item-Test Correlations

Test scale = mean(standardized items)

Item	Obs	Sign	item-test correlation	item-rest correlation	average interitem correlation	alpha
cult	98	+	0.2524	0.0624	0.1724	0.6756
it	98	+	0.5870	0.4385	0.1337	0.6067
cuin	98	+	0.3645	0.1822	0.1594	0.6547
trdev	98	+	0.3245	0.1388	0.1640	0.6624
comm	98	+	0.3649	0.1826	0.1594	0.6547
tmsc	98	+	0.4502	0.2778	0.1495	0.6374
intac	98	+	0.6048	0.4603	0.1316	0.6024
stra	98	+	0.6832	0.5581	0.1225	0.5827
orgst	98	-	0.2766	0.0877	0.1696	0.6713
trust	98	+	0.5717	0.4200	0.1354	0.6103
riskm	98	+	0.7305	0.6192	0.1170	0.5700
Test scale					0.1468	0.6542

Source: Data analysis from data collection

5.5 Modelling Relationship

The study explores the critical success factors contributing to effective risk management practices in commercial banks in Nigeria. This has resulted in the identification of ten factors based on the interview session and questionnaire. It is against this background that the General-to-Specific methodology for multiple regression is deployed to model the relationship between these factors (**independent variables**) and risk management practices (**dependent variable**), as shown below:

$$\begin{aligned}\boldsymbol{RISKM_i} = {} & \boldsymbol{\beta_0 + \beta_1 CULT_i + \beta_2 IT_i + \beta_3 CUIN_i + \beta_4 TRDEV_i + \beta_5 COMM_i} \\ & \boldsymbol{+ \beta_6 TMSC_i + \beta_7 INTAC_i + \beta_8 STRA_i + \beta_9 ORGST_i + \beta_{10} TRUST_i} \\ & \boldsymbol{+ \delta_1 T_1 + \delta_2 T_2 + \varepsilon_i}\end{aligned}$$

Where,

$RISKM_i$ represents risk management practices, $CULT_i$ represents culture, IT_i represents information technology, $CUIN_i$ signifies customer involvement,

$TRDEV_i$ represents training and development, $COMM_i$ represents communication, $TMSC_i$ represents top management support and commitment, $INTAC_i$ represents internal audit and compliance, $STRA_i$ signifies strategic alignment, $ORGST_i$ represents organisation structure, $TRUST_i$ represents trust, and ε_i represents the error term.

Similarly, a set of dummy variables is used to signify the categorisation of banks. Specifically, δ_1 represents Tier 1 banks, and these are considered international banks. δ_2 represents the Tier 2 banks, and they are considered the national banks. The regional banks are the Tier 3 banks, and they are considered the base group in this model to avoid dummy variable trap (Gujarati, 1970; Gujarati, 2003, p.302; Enders and Tofighi, 2007).

It needs to be emphasised that this study model, like any other regression models, is premised on some set of assumptions. Specifically, the classical linear regression model, like our model, comprises of eight underlying assumptions as stated in section 4.6.3.2 of chapter 4. These are: linearity, the independent variable has some variation, independent variable is non-stochastic and fixed in repeated samples, the expected value of the disturbance term is zero, the disturbance terms have constant variance, disturbance terms are independently distributed normality of residuals, and no perfect collinearity among the independent variables (Asteriou and Hall, 2006). Since a violation of any of these assumptions has dire consequences for the result, the study proceeds to check the non-violation of each of these assumptions.

The linearity assumption requires that the dependent variable is a linear combination of independent variables and error terms. More so, it requires the model to be linear in parameters. The model used for this study is linear both in parameters and in variables, although it requires the only linearity in parameters to satisfy the linearity assumption. Specifically, the dependents variable in our study, $RISKM_i$ can be calculated as a linear function of a set of independent variables, dummy variables, and disturbance term: $CULT_i$, IT_i, $CUIN_i$, $TRDEV_i$, $COMM_i$, $TMSC_i$, $INTAC_i$, $STRA_i$, $ORGST_i$, $TRUST_i$, δ_1, δ_2, *and*

ε_i. Despite the linearity of our model, the appropriate functional form needs to be checked. This is quite essential as to prevent under-specification or over-specification of our model (Clements and Hendry, 2002).

One of the tests for the functional form of a regression model is Ramsey Regression Equation Specification Error Test (RESET) test. It is a general specification test for the linear regression model. Specifically, it is used to test non-linear combinations of the fitted values assist in the explanation of the response variable (Sapra, 2005). The Ramsey RESET test suggests that if non-linear combinations of the independent variables have any power in explaining the dependent variable, such model is misspecified since another non-linear or polynomial functional form can better approximate the data generating process. The test is a premise on the following hypotheses:

H_0: No omitted variable in the model
H_1: There is an omitted variable in the model.
Table 5.7 gives the result of the Ramsey RESET test:

Table 5.7: Ramsey RESET Test

```
Ramsey RESET test using powers of the fitted values of riskm
       Ho:  model has no omitted variables
                 F(3, 82) =      1.53
                 Prob > F =      0.2122
```

Source: Data analysis from data collection

It needs to be emphasised that the main objective of the hypothesis testing is to reject the null hypothesis. With the p-value of 0.2122 is above the traditional 5%, this result suggests that higher powers of independent variables do not jointly add additional explanatory power to our model. Thus, it could be surmised that the study model is correctly specified.

Recall that responses to each statement in the questionnaire are based on a five-Likert scale, which evolves from 1 to 5. Thus, there are variations in independent variables, and Table 5.7 shows that responses among respondents are not the same. Specifically, each independent variable has some variations, implying that not all responses are the same. Similarly, the independent variables are non-stochastic and fixed in repeated samples. Specifically, the data for our independent variables are not determined by chance; rather, they are based on responses from a questionnaire. Thus, it is possible to repeat the questionnaire process with the same sample.

Furthermore, our model like any other regression model assumes that the error term is a genuine disturbance with a zero mean, $E(U_i) = 0$. This assumption is considered axiomatic in our model, and this is very crucial as its violation leads to a biased intercept.

The homoscedasticity is central to linear regression models and requires a constant variance for the disturbance term in our model. The failure of such an assumption in our model will lead to inefficient estimators as it affects the distributions of the coefficients of the model, as well as, their variances (Greene, 2003; Gujarati and Porter, 2010, p.274). The Breusch-Pagan Lagrange multiplier (LM) test is deployed to check the presence of homoscedasticity in our model. It tests whether the variance of errors from the model is dependent on the values of the independent variables. The null and alternative hypotheses for the Breusch-Pagan LM test are given as:

H_0: Error terms have constant variance
H_1: Error terms have different variances

The result is presented in Table 5.8. With a p-value of 0.1320, we cannot possibly reject our null hypothesis of homoscedasticity. Thus, we can claim that the error terms in our model have a constant variance.

Table 5.8: Homoscedasticity Test

```
Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
         Ho: Constant variance
         Variables: cult it cuin trdev comm tmsc intac stra orgst trust T1 T2

         chi2(12)      =    17.49
         Prob > chi2  =   0.1320
```

Source: Data analysis from data collection

The assumption of serial independence requires that all disturbance terms are not correlated, implying that the disturbance at one period should not be related with the disturbance term at another period (Asteriou and Hall, 2006). The violation of this assumption will result in inefficient estimators and consequently, the estimators will no longer BLUE (best linear unbiased estimator). Similarly, the estimated variances of our regression coefficients will be biassed and inconsistent. However, the data for this research is a cross-sectional data, and the issue of serial independence or correlation is typically a time-series issue. Similarly, the error terms are assumed to be independently and identically normally distributed with mean zero and variance of one.

The assumption of multicollinearity for our model requires that no independent variable can be written as a linear combination of the other. This implies that there are no exact linear relationships among the independent variables in our model. Since multicollinearity occurs due to inter-correlations among the independent variables, the correlation coefficient between two variables can be considered as a logical way of detecting multicollinearity in our model (Gujarati, 2003, p.341; Asteriou and Hall, 2006).

Correlation defines the linear relationship between two continuous variables (Mukaka, 2012). It represents the degree of linear association between two variables, and it is measured by a correlation coefficient. The correlation coefficient takes a range of value between ±1. A correlation coefficient of zero indicates no linear relationship between the two variables while a correlation of -1 or +1 indicates a perfect negative relationship or perfect positive relative between the two variables. Hence, the closer the correlation coefficient is to ±1, the stronger the association between the two variables. Table 5.9 shows the correlation matrix for all the variables.

Apart from training and development, internal audit and compliance and strategic alignment, culture is positively correlated with other variables. The correlation between culture and organisational structure has the highest correlation coefficient of 0.2847. This is followed by a correlation coefficient of 0.2839, representing the link between culture and information technology. On the other hand, the negative link between culture and training and development, internal audit and development, and strategic alignment has correlation coefficients of 0.0157, 0.0415 and 0.0523, respectively. Information technology has a positive link with other variables except for organisational structure. The organisational structure has a negative link with other variables except for culture and top management support and commitment. Overall, apart from the correlation coefficient of 0.5382 between strategic alignment and internal audit and compliance, the correlation coefficients between any other two variables are less than 50%. With this, there appears to be no apparent case of perfect multicollinearity among our independent variables.

Table 5.9: Correlation Matrix

	cult	it	cuin	trdev	comm	tmsc	intac	stra	orgst	trust
cult	1.0000									
it	0.2839	1.0000								
cuin	0.2712	0.3768	1.0000							
trdev	-0.0157	0.0068	-0.1228	1.0000						
comm	0.0332	0.0941	0.1119	0.0740	1.0000					
tmsc	0.0955	0.2186	-0.0051	0.1483	0.1036	1.0000				
intac	-0.0415	0.1601	0.0930	0.1361	0.0137	0.1972	1.0000			
stra	-0.0523	0.2953	0.1200	0.1003	0.0634	0.2487	0.5382	1.0000		
orgst	0.2847	-0.0799	-0.0022	-0.0216	-0.1013	0.0728	-0.1660	-0.1524	1.0000	
trust	0.0534	0.1878	0.0663	0.2604	0.1705	0.1883	0.2431	0.3866	0.0023	1.0000

Source: Data analysis from data collection

The variance inflation factor (VIF) serves as a mechanism to quantify the severity of multicollinearity in our model. VIF measures the extent to which the variance is inflated. Specifically, VIF measures how the variance of an estimated regression coefficient increases due to collinearity. It quantifies the degree of association between one predictor and other predictors in a model (Groebner et al., 2005; Gujarati and Porter, 2010). Table 5.10 shows the result of VIF, with a mean estimate of 1.68. Hence, with a VIF of less than 10, we can conclude that our model does not have multicollinearity issue.

Table 5.10: Variance Inflation Factor

Variable	VIF	1/VIF
T2	3.50	0.285883
T1	3.34	0.299618
stra	1.80	0.556094
intac	1.48	0.674993
it	1.41	0.708894
trust	1.32	0.755473
cult	1.29	0.778096
cuin	1.27	0.786267
tmsc	1.26	0.791169
orgst	1.26	0.792860
trdev	1.14	0.879402
comm	1.08	0.929473
Mean VIF	1.68	

Source: Data analysis from data collection

Our model shows that all eight enumerated assumptions are satisfied. Thus, estimates from the model satisfy all the assumptions of classical linear regression models. The result of the regression model is presented in Table

5:11 below:

Table 5.11: Regression Results

Model	13.6332486	12	1.13610405	F(12, 85)	=	17.21
Residual	5.61164938	85	.066019404	Prob > F	=	0.0000
				R-squared	=	0.7084
				Adj R-squared	=	0.6672
Total	19.244898	97	.19840101	Root MSE	=	.25694

riskm	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
cult	.0552047	.1042998	0.53	0.598	-.1521712	.2625806
it	.2512384	.0883908	2.84	0.006	.0754938	.426983
cuin	-.2268251	.0690828	-3.28	0.001	-.3641803	-.08947
trdev	-.1577805	.1291623	-1.22	0.225	-.4145898	.0990289
comm	.1721857	.1378023	1.25	0.215	-.1018022	.4461735
tmsc	-.0472757	.1338791	-0.35	0.725	-.3134632	.2189117
intac	.2982418	.0584747	5.10	0.000	.1819784	.4145052
stra	.4157857	.079701	5.22	0.000	.2573187	.5742527
orgst	-.2066644	.0871156	-2.37	0.020	-.3798735	-.0334552
trust	.1709053	.0667388	2.56	0.012	.0382107	.3035998
T1	-.0759227	.0964764	-0.79	0.433	-.2677436	.1158982
T2	-.0090375	.0971067	-0.09	0.926	-.2021116	.1840367
_cons	1.017953	.9502938	1.07	0.287	-.8714855	2.907392

Source: Data analysis from data collection

The result shows that our regression model has an R-squared of 0.7084. The R-squared, also known as the coefficient of determination, measures the closeness of the data to the fitted regression line (Greene, 2003; Chatterjee and Hadi, 2015; Schroeder, Sjoquist and Stephan, 2016). R-squared of 0.7084 implies that our independent variables can explain approximately 70.8% of variations in our dependent variable, risk management practices. Such proportion shows that our independent variables are a good representative of our dependent variable. However, R-squared has a fundamental flaw: it cannot determine the bias of the coefficient estimates and predictions.

Similarly, the addition of another independent variable increases the value of R-squared, even if the independent variable is not related to the model. The adjusted R-squared potentially addresses the problem by comparing the explanatory power of the models with different numbers of predictors. Hence, adjusting the statistics based on the number of independent variables, the adjusted R-squared amounts to 66.7%. The regression result show that six variables are statistically significant at the traditional 5% level: information technology, customer involvement, internal audit and compliance, strategic alignment, organisation structure, and trust.

Table 5.12 shows the sequential ordering of the coefficients of the statistically significant variables. One noticeable feature with the coefficients is coefficients of two variables – organisation structure and customer involvement – run contrary to expectation. They are negative, implying that the deepening of such variables erodes the risk management practices in Nigerian banks. Specifically, the results from our model show that a unit enhancement in the organisational structure in Nigerian banks will on the average erode risk management practices by 0.21 units when other factors are kept constant. Similarly, enhancing customer involvement by one notch will erode risk management practices by 0.22 units, while other factors are fixed.

The negative coefficient on organisation structure partly explains the poor risk management practices in Nigerian banks. Specifically, a major challenge facing the Nigeria banking sector is the poor credit management characterised by poor organisation structure vis-a-vis inept corporate governance and management (Ugoani, 2012). Evidence abounds of several instances where Board members, as well as, management staff in Nigerian banks, fail to promote and uphold basic pillars of corporate governance because of their personal interest (Soludo, 2004). Similarly, the negative coefficient on customer involvement in risk management practices is partly related to poor corporate governance in Nigerian banks. Evidence abounds about insider collusion on various dubious transactions, as well as, banks officials and Board members using their proxies as loan customers. In particular, the inordinate ambition of banks directors to get rich quick often led to reckless granting of loans that resulted in losses, bank failure, and erosion of risk management practices (Ugoani, 2012). For instance, managing directors/chief executive officers of some banks ran their banks aground of questionable granting of loans (Onyekwere, 2013).

Table 5.12 – Regression Coefficients

Variable	Coefficient
Strategic Alignment	0.4157857
Internal Audit and Compliance	0.2982418
Information Technology	0.2512384
Trust	0.1709053
Organisational Structure	-0.2066644
Customer Involvement	-0.226825

Source: Data analysis from data collection

Apart from the organisational structure and customer involvement, the other four variables have the expected positive coefficient. Strategic alignment contributes more among all the factors with positive coefficients. A unit deepening of strategic alignment in Nigerian is expected to deepen their risk management practice by 0.42 units when other factors remain constant. While deepening of internal audit and compliance, and information technology by one unit respectively will translate to the enhancement of risk management practices in Nigeria banks by 0.3 units, and enhancing the trust in Nigerian banks by one notch will result in the deepening of risk management practices by 0.17 units when other factors are held constant.

Similarly, various categorisations of banks impacts on their risk management practices. The respondents are employees of banks under three categories: international, national and regional banks. Given this, dummy variables are introduced in our model, with the regional banks being the base group. Thus, the estimates on the two dummy variables, T1 (international banks) and T2 (national banks), measure the proportionate difference in risk management practices to regional banks. Table 5.13 shows the impact of banks categorisation on risk management practices in Nigerian banks. Thus, international banks are estimated to have approximately 0.076 units lower in their risk management practices relative to other banks, holding all our independent variables constant. On the other hand, national banks are estimated to have approximately 0.01 units lower in their risk management practices relative to other banks, holding all our independent variables constant. However, regional banks have a predicted deepening of its risk management practices by 1.02 units relative to other banks when other factors are held constant.

Table 5.13: Categorisation of Banks

Classification	Coefficients
International	-0.0759227
National	-0.0090375
Regional	1.017953

Source: Data analysis from data collection

Thus, the estimated proportionate difference between an international bank and the national bank is 0.067 {-0.0090375 – (-0.0759227)}. This implies that the risk management practices deepen by 0.067 unit in banks categorised as national banks more than the international banks, while the difference between international and regional banks is 1.09, the difference between national and regional amounts to 1.03.

Due to the non-significant of four variables, several regression models were run with combinations of several variables used in our regression models and results to our earlier results. Specifically, each of the non-significant variables was excluded for different models, and one model involves the exclusion of all the four variables. This is to show the robustness of our regression model, as shown in Table 5.14. One noticeable feature of the result is the non-significant impact of the omission. In fact, there is a minimal impact on the coefficients. For instance, the exclusion of any of the four variables minimally changes the coefficient of information technology from 0.251 to between 0.246 and 0.262. For customer involvement, the coefficient changes from -0.227 to between -0.220 to -0.198. However, culture, training and development, communication, and top management support and commitment remain statistically significant in any of the selected models.

Table 5.14: Robustness Check of Coefficients

	OLS1 b/se	OLS2 b/se	OLS3 b/se	OLS4 b/se	OLS5 b/se	OLS6 b/se
cult	0.055		0.053	0.057	0.053	
	(0.10)		(0.10)	(0.10)	(0.10)	
it	0.251**	0.262**	0.252**	0.251**	0.246**	0.258**
	(0.09)	(0.09)	(0.09)	(0.09)	(0.09)	(0.08)
cuin	-0.227**	-0.220**	-0.216**	-0.218**	-0.224**	-0.198**
	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)
trdev	-0.158	-0.157		-0.152	-0.162	
	(0.13)	(0.13)		(0.13)	(0.13)	
comm	0.172	0.173	0.166		0.167	
	(0.14)	(0.14)	(0.14)		(0.14)	
tmsc	-0.047	-0.044	-0.063	-0.029		
	(0.13)	(0.13)	(0.13)	(0.13)		
intac	0.298***	0.298***	0.292***	0.295***	0.297***	0.288***
	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)
stra	0.416***	0.411***	0.421***	0.412***	0.411***	0.409***
	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)
orgst	-0.207*	-0.194*	-0.207*	-0.221*	-0.211*	-0.212*
	(0.09)	(0.08)	(0.09)	(0.09)	(0.09)	(0.08)
trust	0.171*	0.172*	0.153*	0.182**	0.169*	0.163*
	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)	(0.06)
T1	-0.076	-0.079	-0.087	-0.080	-0.080	-0.098
	(0.10)	(0.10)	(0.10)	(0.10)	(0.10)	(0.09)
T2	-0.009	-0.012	-0.013	-0.018	-0.017	-0.031
	(0.10)	(0.10)	(0.10)	(0.10)	(0.09)	(0.09)
_cons	1.018	1.116	0.496	1.621	0.936	1.094
	(0.95)	(0.93)	(0.85)	(0.82)	(0.92)	(0.56)

Source: Data analysis from data collection

5.6 Conclusion

The overall objective of this study was to examine the critical success factors contributing to effective risk management practices in the Nigerian banking system. This led to the evaluation of three research questions relating to major risks facing commercial banks in Nigeria, risk management challenges facing these banks, and the factors driving the effective risk management practices in these banks. The study deployed a mixed-method approach involving interviews and questionnaires. The data collected from the interviews was exclusively used to identify the major risks facing the commercial banks in Nigeria, as well as the risk management challenges confronting these banks. On the other hand, the questionnaires majorly focused on examining the factors driving the risk management practices in those banks. The review of the interview sheet shows that the respondents identified five key risks facing the commercial banks in Nigeria: operational risk, credit risk, regulatory/legal risk, sovereign risk and market risk. Similarly, a multiplicity of risk management challenges faced commercial banks in Nigeria. However, six of these challenges were identified to be substantial: risk management policies, nepotism, lack of management commitment, poor credit culture, cyber-attacks and an inefficient legal system. While the respondents identified ten critical factors facing commercial banks in Nigeria, the regression analysis showed only six were statistically significant: strategic alignment, internal audit and compliance, information technology, trust, organisational structure, and customer involvement. Although the coefficients of these variables were expected to be positive, the regression analysis showed that the coefficients of two variables - organisational structure and customer involvement - were negative.

The next chapter focuses on a discussion of the research results, overall conclusions from the analysis conducted in the preceding chapter, drawing a final finding and discussion, and the key results from both qualitative and the quantitative methods are brought together. Limitations of this study and different recommendations for future research are also discussed in the next chapter.

Chapter Six: Research Discussion, Summary and Conclusion

6.0. Introduction

The previous chapter outlined and discussed in detail the research data analysis and results to answer the research questions. This chapter summarises the results obtained from the data analysis and discusses each of the factors identified through the research. It also provides the overall research conclusions, research limitations and recommendation for further research.

6.1 Summary of Key Findings

Risk management is an integral part of bank practice, with all banks are undoubtedly facing various risks in the present-day volatile environment. The survival and success of banks are largely dependent on these risks. This has seen banks becoming a business of risk, and efficient risk management is essential. Thus, this study examines the critical success factors impacting on the effective risk management practices in Nigerian banks. This objective is explored through fundamental research questions:

- What are the major risks facing commercial banks in Nigeria?
- What are the risks management challenges facing commercial banking industry in Nigeria?
- What factors contribute to effective risk management practices in the Nigerian banking system?

These questions were explored using a mix-method approach. The interview serves as the foundation of the study and involves asking risk management practitioners in Nigerian banks questions relating to risks facing commercials banks, as well as risk management challenges facing commercial banks in Nigeria. These questions and their responses assisted in designing a questionnaire on the effective risk management practices in the Nigerian banking system. Thus, the three research questions require a binary approach: the first two research questions were explored through a qualitative approach, while the third question was explored through a quantitative approach.

The qualitative approach involves an interview focusing on major risks confronting commercial banks in Nigeria and risks management challenges facing the industry. The review of the interview sheet shows that the respondents identified five key risks facing the commercial banks in Nigeria: operational risk, credit risk, regulatory/legal risk, sovereign risk and market risk as shown in Table 6.1 below:

Table 6.1: The top five most important risks in Nigerian banks.

No.	Types of Risk	Frequency	Percentage
01	operational risk	83	84.6%
02	credit risk	84	85.5%
03	regulatory/legal risk	82	83.4%
04	sovereign risk	82.5	84.2%
05	market risk	82	83.4%

Source: Data analysis from data collection

The market situations in Nigeria caused by political instability and other factors and the overall weak economic have enhanced the level of all these five risks in Nigeria banking system (Soludo et al., 2007; Sanusi, 2010).

Similarly, a multiplicity of risk management challenges was facing commercial banks in Nigeria. However, six of these challenges were identified to be substantial: non-compliance with risk management policies, nepotism by top management, lack of management commitment, poor credit culture, cyber-attacks and the inefficient legal system as shown in table 6.2 below:

Table 6.2: The top six risk management challenges in Nigerian banks.

No.	Risk management challenges	Frequency	Percentage
01	Non-compliance with risk management policies	72.2	73.68%

02	Nepotism by top management	98	100%
03	lack of management commitment	51.6	52.63%
04	poor credit culture	62	63.16%
05	cyber-attacks	87	89.47%
06	inefficient legal system	62	63.16%

Source: Data analysis from data collection

On the other hand, the quantitative approach entails the design of a questionnaire focusing on the effective risk management practices in Nigeria banking system. The design of the questionnaire was based on the ten (10) out of thirty-five (35) factors identified from the extant literature on risk management practices. The identified factors form part of the questions in the interview guide presented to the head of the risk management department in various Nigerian banks. However, the responses showed that only ten are related to the Nigerian banking system. Their responses were analysed through a multiple regression model. While the model was subjected to various assumptions of Ordinary Least Square (OLS), the results show that the model did not violate any of these assumptions. Similarly, the result shows that six variables were statistically significant, and these variables are strategic alignment, internal audit and compliance, information technology, trust, organisational structure, and customer involvement. Although the expectation was that these factors should positively drive the risk management practices in Nigeria, the estimated coefficients of two variables - organisational structure and customer involvement – run contrary to expectation.

6.2 Importance and Contribution of the Ten Factors to Risk Management Practices to Commercial Banking in Nigeria.

The ten identified critical success factors to effective risk management practices in Nigerian commercial banks includes communication, culture, customer involvement, information technology, internal audit and compliance, organisational structure, strategic alignment, top management support and commitment, training and development, and trust. These factors contribute immensely to effective risk management practices in Nigerian banks and failure to provide and sustain these critical success factors might result to bank liquidation and bankruptcy (Stewart, 2014; Thomas and Raphael, 2014).

Communication: The need for proper checking and balancing by the board and other functions are done through communication. Once an intensified guidance or regulation was developed, the risk management team should find their way to assess the accuracy and effectiveness of the information provided so that others in the group can perform well with their tasks (Organization for Economic Cooperation and Development, 2014).

Culture: A well-cultivated credit culture imposes absolute discipline and absolute commitment to consistency. It is a top-down process by which personal integrity matters and accountability is essential. Without it, expectations will not be met, and inconsistencies will be rampant, giving the bank more reasons to close and terminate services (Cooley, 2013).

Customer Involvement: Achieving full customer involvement comes from the risk managers' capability to formulate and implement relationship management strategies. Without suitable product information, customers might unlikely to involve themselves with banks. Considering that, customers' satisfaction should be the utmost goal of every business in order to get not only their interest but also their loyalty (Howcroft, Hamilton and Hewer, 2007).

Information Technology: With the use of different technologies, data were captured, analysed, and reported in order to sustain the bank's capability to perform well. Information gathered from these practices covers the following categories: cooperation, supreme governance and infrastructure, risk data accumulation competencies, risk reporting competencies, and supervisory reviews and tools (Stewart, 2014; Svata and Fleischmann, 2011).

Internal Audit and Compliance: Internal auditing from the Basel Committee, Group of Thirty, Institute of International Finance, and other supervisory group is expedient in identifying sound practices and areas that need improvement.

More specifically, these authorities focused more on the effectiveness of the bank's risk governance framework, particularly their risk culture to achieve thorough compliance (Organization for Economic Cooperation and Development, 2014).

Organisational Structure: In Nigeria, banking industries are extremely controlled by determined and exhaustive regulators where they have been kept posted with their assignments and efficiently control everything that goes on with the bank while allowing them to proceed with the usual transformations of regular settings (Taiwo et al., 2016).

Strategic Alignment: Excessive attention is necessary for risk appetite and mitigation both at business and service line levels, the central data underlying documentation and the risk related to the retention. Non–compliance is commonly financial and reputational obligation (The Wall Street Journal, 2016) implemented upon most banking institutions, even in Nigeria.

Top Management Support and Commitment: Managers must be exemplary in the most significant part of banking operations. Since they are in the lead, they are to perform periodic and regular loan reviews in order to identify weaknesses integral in unsettled facilities and might allow for speedy intervention or corrective measure to avoid and/or minimise losses (Tobak, 2011).

Training and Development: since most banks in Nigeria are having a series of transformations, the need for extensive training and development is needed. Without such a tool, it will be tough for them to sustain growth and comply with international operation standards (Thomas and Raphael, 2014).

Trust: In as much as failures of the past are greatly caused by inefficient operations, lack of attention to details by those that are in the lead, and reduced internal control of the surroundings, trust have been placed in greater risk. Banks that do not gain trusts will be more likely to have fewer customers and less profit (Mueller, 1993; Wah Yap, Ramayah and Nushazelin, 2012;

Chaney, 2016).

6.3 Contribution to Existing Research Knowledge

As earlier mentioned in chapter two, many scholars discussed critical success factors in different ways and from different perspectives. Some of these scholars identified the factors that are important and how significant those factors are in relation to effective risk management, but none of them looks at the concept from the perspective of the Nigerian commercial banking. Even though this research study filled the identified knowledge gap by examining those factors that contribute to effective risk management practices in the commercial banking industry in Nigeria, the research also makes some addition to an existing body of literature in several ways, which is categorised into methodological, theoretical and practical contributions.

6.3.1 Methodological contribution

The study has two methodological contributions. The major bane of the existing literature is the inability to localise and justify the variables used in their studies. With a strand of literature emphasising the importance of localisation of risk management construct (Sere, 2015), the variables used in this study are localised to meet definitions in the context of the study. This is a clear departure from the existing studies where various variables, such as information technology and customer involvement, are used as default words without explicitly narrowing them to the context of the study.

Although there are multiple studies in risk management literature utilising regression models, the use of principal component analysis (PCA) to evaluate the variable used is quite rare. This study utilised the PCA to extract vital information from these responses and express them as a set of new orthogonal variables called principal components (Abdi and Williams, 2010). The use of the PCA enables the researcher to include the most important factors in the regression model, while other peripheral variables are included as part of the error term in the regression. This is quite important to avoid the problem of over-specification of the model, which would have impacted on the estimates generated for the estimators.

6.3.2 Theoretical contribution

This study makes two essential theoretical contributions. One, the extant literature on risk management practices largely utilise the conclusion of the studies carried out in developed economies and extend this result to developing economies. However, a huge body of literature, such as Lavastre, Gunasekaran & Spalanzani (2012) and Wilhite, Sivakumar & Pulwarty (2014), emphasises the impact of both industry and location on the risk management practices. In particular, Bloom & Van Reenen (2010) established that the sample area and location are essential in the understanding of risk management practices. This study contributes to the existing literature by localising the study to Nigeria. Although there are few studies, such as Kolapo, Ayeni & Oke (2012), such studies are not holistic as they focus on specific types of risk, such as credit or operational risk. However, this study is comprehensive by evaluating the multiplicity of study and its findings corroborates differences in risk management issues across countries. For instance, nepotism is a major risk management issues in Nigeria, but it is subordinated to other issues, such as credit and sovereign risks in developed economies.

The second theoretical contribution involves improving the understanding of risk management dynamics in the commercial banking sector in Nigeria, especially the effect of the board on the decision-making process. This is quite different in the existing literature, which emphasises corporate governance. In the case of Nigerian commercial bank, the study shows the enormous influence of board members in the decisions on credit approvals, especially those credit involving board members, which has propelled insider abuse and nepotism. Such influence of board is not quite evidenced in the existing literature because those studies dwell more on principal-agent theory and utilise effective corporate governance as a check-and-balance approach in the relationship. The study deviates from this by utilising stakeholder theory and places the board members as a competitive agent in the chain of risk management practices in commercial banks in Nigeria.

6.3.3 Practical contribution

This study does provide not only theoretical and methodological contributions but also offers a significant practical contribution, as the research covers a current area of research that is vital to the financial regulatory bodies and also fundamental to the success of banking sector in Nigeria. This research work is assuming to provide support and serve as guidelines to the management of the Nigerian banking industry to formulate effective risk management frameworks using the identified factors that contribute to effective risk management practices. The outcome of the research can as well serve as guidelines on how to increase the effectiveness of risk management practices in other financial industries, and other organisations such as governments and hospitals.

6.4 Research Limitations

Even though this current study revealed important findings in order to add significant contributions towards the existing literature on risk management in the banking industry by successfully answering the research questions and testing the hypothesis in order to accomplish the research aim and objectives, it nevertheless had its limitations and challenges.

The study limited its interviews and questionnaire analysis to the identification of the types of risks facing banks, the risk management challenges, and those factors that contribute to effective risk management practices in Nigerian banks. Due to time and resource constraints, the research did not investigate other aspect of risk management such as risk management quality, board composition, the relationship between risk management practices and other different areas of risk management and the impact of identified types of risks to the banking system.

In addition, the study population was limited to commercial banks in Nigeria, while some other banks such as Merchant banks, Specialised and

Development banks, and Micro-Finance banks were covered in the scope of the study. Hence, the results generated from this current research may not be generalised to the other categories of banks in Nigeria. Nevertheless, this research was able to obtain data from nineteen (19) out of twenty-two (22) commercial banks in Nigeria, covering over 86% of the targeted population. Also, all the data collected through the interviews and questionnaires were limited to the staff in risk management units only. Given time, the research data collection could also have been extended to other staff in other departments of the banks. This is because the risk management is not restricted with the sole responsibility of those working in the risk management departments, but everyone who works for the bank (Barth, Caprio and Levine, 2001; Aebi, Sabato and Schmid, 2012).

6.5 Recommendations for Future Research

The research limitations indicate that several areas of risk management in commercial banks in Nigeria have been partially addressed during this study and some possible extensions for future research were suggested. Also, the study focused mainly on the commercial banking industry in Nigeria. However, not only banking industry faces risks, but also other financial institutions such as Insurance Company, Stock Exchange, and other non-financial organisations such as governments or hospital should be a sample for further research work.

As earlier mentioned, the current research work considered only commercial banks in Nigeria. The ten (10) critical success factors identified in this research should be tested in other banks' categories such as Merchant banks, Specialised and Development banks, and Micro-Finance banks regardless of their nature, size and banking operations. They can also be tested on other financial institutions such as Insurance company and Stock exchange or other non-financial organisations, government parastatals and hospitals.

In the future, the current research work can also be extended to other banks of other countries or a comparative analysis conducted between banks in developing countries and developed countries to obtain more diversified results. By using a similar approach and methodology, remarkable and varied results could be generated due to some specific factors such as different economic conditions, government and financial regulations and market competition.

6.6 Personal Reflection - My Doctoral Experience

My PhD journey has been a remarkable part of my life. I experienced a huge shift in my sense of identity and in my worldview as I left my position in the banking industry to pursue this programme. At first, it was difficult to adjust to the reality of carrying out research work in an academic environment because I did not consult during the first six months, and I lacked scholarly writing skills before I started this programme. Scholarly writing is completely different from basic writing skills; it took me some time to acquire the basic scholarly writing skills, as I dedicated my time to learn about writing arguments and critiquing others' work.

The first year Doctoral taught coursework gave me a taste of what I needed to learn in several areas, most especially in conducting database research for a literature review and the importance of accurately citing references. The first year taught courses; literature review and critical thinking (LRCT), principles of research design and philosophy of knowledge (PRDPK), quantitative research methods (QRM), and qualitative research methods (QLRM), provided me with a wonderful guidance and mentorship to prepare me for the task ahead. These courses served as basic tools used throughout my PhD program. Having passed all the four courses in my first year and moving into the second year, the challenges became much larger than I anticipated. But, with the help of my experienced, ever-ready and supportive supervisory team, the journey became easier and smooth till the completion of this program.

Having completed my PhD programme, I now enjoy conducting research and writing. I found the process of exploring questions, collecting research data and analysing the results to be fascinating and interesting. As a result, the study of banking risks began to take a new meaning, including the process of putting ideas together, exploration and critique and communicating to an audience of readers. Given this experience and in the light of hindsight, one area I would have also wanted to look at if I had been starting the research would have been the comparative analysis between banks in developing countries (like Nigeria) and developed countries (for example United Kingdom) using a similar approach and methodology to obtain more diversified results. This is an area to which I will devote my future research.

6.7 Conclusion

The study explored risk management practices in commercial banks in Nigeria. It was found that commercial banks in Nigeria faced several risks, notably, operational risk, credit risk, regulatory/legal risk, sovereign risk and market risks. Additionaly, the study also found that several risk management challenges faced banks in Nigeria. While various studies have enumerated various risk management challenges, the study found that many of these challenges pertained to the Nigerian banking industry. Specifically, non-compliance with risk management policies, nepotism by top management, as well as lack of management commitment were the greatest challenges. Moreover, these challenges were amplified by poor credit culture, cyber-attacks and inefficient legal system. However, despite these challenges, risk management practices were driven by six notable factors out of the identified ten factors during the interview sessions. These drivers comprised of strategic alignment, internal audit and compliance, information technology, trust, organisational structure, and customer involvement.

While banks need to craft strategies that will deepen these six notable drivers, it is equally important that banks, alongside regulatory authorities and other government agencies, such as the judiciary, work assiduously to mitigate against hindrances, such as an inefficient legal system and erratic Internet connectivity, to deepen risk management practices in Nigeria banks. Although the results of this study reinforce the impact of risk management practices in the financial institution, it has also been shown that the study has some limitations.

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Appendix 1: Letter of Introduction to conduct Research Interview

Manchester Metropolitan
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22nd June 2017

To whom it may concern
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Dear Sir/Madam

LETTER OF INTRODUCTION – RASHEED BELLO, DOCTORAL RESEARCHER

I am delighted to confirm that Mr Rasheed Bello is a PhD student at Manchester Metropolitan University, undertaking a PhD since September 2015; and is conducting research into **Risk Management Practices in the Commercial Banking Industry**, as part of his PhD.

Mr Bello will be in Nigeria from 28 June 2017 until 12 July 2017; and will be conducting interviews with Banking Executives who are in charge of risk management practices within their respective institutions.

Please do not hesitate to contact me if you have any further queries regarding this.

Many thanks for your cooperation and assistance.

Kind regards,

Yours sincerely

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Appendix 2: Interview Questions

INTERVIEW - with Bank Executives in charge of Risk management

PhD Title:

Risk Management Practices in the Commercial Banking Industry:

A quantitative analysis to examine the critical success factors that contribute to effective risk management practices in the commercial banking industry in Nigeria.

Introduction:

This interview is being carried out solely for my academic research project that aims to collect information to gain an understanding of Risk Management Practices in Commercial Bank Industry in Nigeria.

What is required in participation?

I shall need your participation in the questionnaire survey. If you are willing, I would like to request you to fill the enclosed questionnaire in order to accomplish our goal of data collection.

Your participation in this survey is voluntary, and you can refuse to answer any question or even to withdraw your involvement at any point from this research project.

I would appreciate your point of view regarding the application of risk management practices at your bank.

Data protection:

I assure you that all responses to this survey will be kept **STRICTLY CONFIDENTIAL** and used for academic research purpose only. All the information will be reported in a systematic way as to make direct association with yourself impossible.

Confidentiality will also be maintained by coding and storing all the questionnaires in such a way that it will be impossible to identify them directly with any individual. For this purpose, these questionnaires will be organised by numbers rather than by names.

Seeking Consent:

In order to fully capture all necessary information during the interview process, the researcher seeks your consent to record the interview conversation.

Please Tick YES if consent is given ☐

NO if no consent is given ☐

Part I

Q1. How many years of experience do you have working with risk management.

- ❍ Less than 1 year
- ❍ 1 -2 years
- ❍ 3 - 5 years
- ❍ More than 5 years

Q2. What is your expectation from risk management in your bank?

- ❍ Reduce financial losses
- ❍ Improve communication with the stakeholders
- ❍ Improve decision making
- ❍ Improve resource allocation
- ❍ Others (please specify)___________________

Q3. How important do you think Risk Management is within your organisation?

- ❍ Critical
- ❍ Important
- ❍ Not important

Q4. Please highlight by ticking either Yes or No the various types of risks currently faced by the bank

S/N	Risk Type	Yes	No		Risk Type	Yes	No
1	Market Risk			10	Technology Risk		
2	Solvency Risk			11	Commodity Price/Equity Risk		
3	Interest Rate Risk			12	Sovereign/Country (Political) Risk		
4	Liquidity Risk			13	Off-balance Sheet Risk		
5	Foreign-Exchange Risk			14	Strategic Risk		
6	Operational Risk			15	Reputation Risk		
7	Regulatory / Legal Risk				**Any Other (Please Specify)**		
8	Credit Risk						
9	Counterparty Risk						

Q5. Please position the top five risks in respect of bank's risk exposure from the above table.

I.______________________________ II.____________________________

III.____________________________ IV. ____________________________

V.____________________________

Part II

Question 1:

What do you think are the critical Risk Management issues?

Question 2:

Do you think these Risk Management issues mentioned are all related to banks in Nigeria?

Question 3:

Are all these issues mentioned are applicable to your bank?

Question 4:

From the lists of factors in the table below, could you please identify those factors that are peculiar to effective Risk Management Practices in your bank?

List of Factors identified from literature are summarized in the table below:

S/N	Critical Success Factors	Please TICK Appropriately
1	Egalitarian culture	
2	Use of information technology	
3	Customer involvement	
4	Change management	
5	Top management commitment	
6	Less bureaucratic structure	
7	Project management	
8	Adequate financial resources	
9	Quality management system	
10	Senior management support	
11	Project champion	
12	Relationship with vendors	
13	Change in corporate culture	
14	Project governance and execution	
15	Realisation of benefits	
16	Strategic alignment	
17	Level of investment	
18	Performance measurement	
19	Level of employee's specialization	
20	Organizational changes / structure	
21	Appointment of the process owners	
22	Implementation of proposed changes	
23	Use of continuous improvement systems	
24	Standardization of processes	
25	Informatization	
26	Automation	
27	Training and Development of employees	
28	Bank operation under a relevant risk management system	
29	Involvement of Bank governing bodies and readiness to widely support changes in the bank management	
30	Chief Risk Officer (CRO) leadership role and the key risk management activities	
31	Strategic involving policy procedures and communication	
32	Managerial involving management support	
33	Operational involving internal audits and control	
34	Technical factors involving system security and performance	

35	Trust	

Q5 Are there any additional critical success factors would you like to mention for effective risk management practices in banking industry.

- ❍ Yes
- ❍ No
- ❍ If yes, please list them here_________________________________

Q6 Do you have any comments or suggestions?

- ❍ Yes
- ❍ No
- ❍ If yes, please state them here_____________________________

Q7 Would you like to have a summary of the study results sent to you by email.

- ❍ Yes
- ❍ No
- ❍ If yes, please write your e-mail here____

THANK YOU FOR YOUR TIME, RESPONSE AND PARTICIPATION

Appendix 3: Transcripts of Responses from Interview Questions.

Interview with Respondent 1

Interviewer: Good day. My name is Rasheed Bello and I conducting a research on risk management practices in the commercial banking industry

Respondent 1: Good day. I am ………… and I am the head of risk management department of this bank.

Interviewer: I will be asking you some questions relating to risk management practices in Nigeria and your bank in particular. I will appreciate your response on that

Respondent 1: Okay

Interviewer: How many years of experience do you have working with risk management.

Respondent 1: More than 5 years. In particular, I have close to 20 years banking experience and I spent almost 17 years of this in risk management department. Out of this, I have been in risk management depart for 6 years in this bank.

Interviewer: Among the following issues, what is your expectation from risk management in your bank? Reduce financial losses; Improve communication with the stakeholders; Improve decision making, Improve resource allocation. You can equally specify others if your view goes beyond the enumerated expectation

Respondent 1: My expectations are a mix of all your highlighted issues and including more. I believe the essence of risk management is to mitigate against losses. As a bank, our expectation is to limit operational and credit risk and we adopt a pro-active risk management practices to achieve this.

Interviewer: How important do you think Risk Management is within your organisation? Do you think it is critical, important or you even consider it as not important?

Respondent 1: Risk management is the engine room of any bank, So, I do not only consider it important, I see it as very critical in any bank's operation

Interviewer: Please kindly look at the following table and highlight by ticking either Yes or No the various types of risks currently faced by the bank

Respondent 1: Hmmm, I think the table is a typical default list of risk facing all the banks in Nigeria. With that, I will say yes.

Interviewer: In that case, can you itemise the top five risks in respect of bank's risk exposure from the above table.

Respondent 1: I will go for country risk, regulatory risk, operational risk, credit risk and legal risk in that order.

Interviewer: Thank you for your responses so far. That concludes the first part of the interview and I will be proceeding to the second part.

Respondent 1: You are welcome

Interviewer: My first question will be What do you think are the critical Risk Management issues?

Respondent 1: This question is a bit mouthful, but I will try and summarise my response. I think, hmmm, they are majorly hinged on business failure, which can be attributed to bad infrastructures and cyber-attacks, poor economic policies, non-willingness to meet up with obligations on the part of the customer, bad management of resources and our judicial system as regards getting judgement on sticky risk assets, and nepotism by senior management, and corrupt legal system within the commercial banks in Nigeria.

Interviewer: Thank you for this response, but can you expatiate more on the issue of accountability and transparency.

Respondent 1: Without naming names, there is an increasing insider-related credits and more often, the decision on this are taken at the board level. The officer working on such accounts are hindered from taken a definite stand. Even if such officers stand the credit down, the board or management approval will override such credit appraisal. If you look at the CBN report on some of the infractions in the banking industry, this problem features prominently.

Interviewer: Thank you for providing further clarity on the issue. My next question is do you think these Risk Management issues mentioned are all related to banks in Nigeria?

Respondent 1: The point is risk management is a complex issue since almost all the industry default to banks to credit. Even if some of the risk management issues mentioned are related to other industry, the multiplier effects will affect banks and manifest themselves as part of risk management in banks. So, my answer will be all these issues are related to banks in Nigeria.

Interviewer: Okay, but are all these issues mentioned are applicable to your bank?

Respondent 1: Prior to the last six months, I will say yes. However, we have reviewed our credit policy and we do not fund any foreign-exchange related transactions. But like I said earlier, risk management is a big pot and the effect of all the issues affect my bank directly or indirectly.

Interviewer: That is very apt. Can you please go through this list and could you please identify those factors that are peculiar to effective Risk Management Practices in your bank?

Respondent 1: I will pick the following factors: customer involvement, change management, top management commitment, senior management support, level of investment, and trust. I am also tempted to add standardization of processes and automation.

Interviewer: Thank you. are there any additional critical success factors would you like to mention for effective risk management practices in banking industry?

Respondent 1: Although you mentioned it under different headings, but I think we need to emphasise the issue of insider connivance. I think it is a major bane of risk management in banks. Mostly people do it for pecuniary reasons.

Interviewer: Do you have any comments or suggestions?

Respondent 1: None that can think of now

Interviewer: Would you like to have a summary of the study results sent to you by email?

Respondent 1: I will surely appreciate that

Interviewer: Thank you and I appreciate your response

Interview with Respondent 2

Interviewer: I am Bello Rasheed. I am currently doing my PhD in Risk Management and I am exploring the risk management practices in commercial banks in Nigeria. Can I meet you please?

Respondent 2: My name is ……. I am Senior Manager in charge of Risk Management Department in ……… bank.

Interviewer: As a Senior Manager, have you always been in the Risk Management Department? Sorry, let me rephrase the question. How long have you been working in the risk management department?

Respondent 2: I have been in this department for like a decade.

Interviewer: I know there are various expectation from risk management from various banks. It could be any of the followings: Reduce financial losses; Improve communication with the stakeholders; Improve decision making; Improve resource allocation. What will you consider the risk management expectation in your bank?

Respondent 2: I will rather see risk management as a means control risk. With control risk allowing banks to minimise their losses, I will toe your line of reducing financial losses.

Interviewer: Thank you. My next question will focus on the importance of risk management in your bank. Will you say risk management is important or will your rather say it is critical or perhaps, do you see it as not important.

Respondent 2: I see at as not just critical, but very critical. It defines our bank and we make all effort to make it effective

Interviewer: Kindly review the list of various types of risk and I will appreciate if you signify those risks faced by your bank

Respondent 2: I will select solvency risk, interest rate risk, liquidity risk, operational risk, regulatory risk, legal risk, credit risk and reputational risk.

Interviewer: Thank you. Can you identify your top-five risks among your chosen risks?

Respondent 2: In no sequential order, I will select credit risk, operational risk, solvency risk, interest rate risk and liquidity risk.

Interviewer: In your own opinion, what do you think are the critical risk management issues?

Respondent 2: For me, one of the critical risk management issue is the inability to effectively demonstrating the value of risk management to the Board. Putting it differently, the management and the Board seem to have different notion about the risk management and this often cause major issue. We can see this as a principal-agency problem, but it is always tearing the fabrics of the bank. On the other hand, lack of viable credit bureau in the country is a critical risk management issue.

Interviewer: In that case, do you see this as a general problem in the banking sector.

Respondent 2: yes, I see it as a general problem in the banking industry, although the magnitude varies across banks.

Interviewer: Really? Are these issues applicable to your bank?

Respondent 2: Of course, they are. However, we have been involving process re-engineering and this often require having to dialogue with the board on the importance of these issues. CBN is also fostering risk management practices on both the management and the board.

Interviewer: Thank you for shedding more light on the issue. I will provide you with another table. This time, I have identified some factors driving effective risk management practices. In your opinion and relating to your bank, which of these factors do you think are applicable?

Respondent 2: Use of IT, standardisation of processes, training and development, operational involving internal audits and control, trust, and level of employee's specialization

Interviewer: Are there any additional critical success factors would you like to mention for effective risk management practices in banking industry?

Respondent 2: I will include sound corporate governance, lack of robust risk management framework, cyberattacks and unauthorised access to information resources, non-compliance with laid down risk management policies and procedures / complacency in carrying out risk related due diligence, nepotism by senior management and corrupt legal system within the industry, and lack of commitment from boards and senior management to risk management

Interviewer: Thank you very and I appreciate your candid response. Do you have any comments or suggestions?

Respondent 2: I have always believed that risk management practices should be a dynamic thing and it is important for all banks to have a periodic evaluation of their risk management process and respond to market requirement.

Interviewer: Would you like to have a summary of the study results sent to you by email.

Respondent 2: Yes, and my email is …………

Interviewer: I appreciate the robust discourse and your insight regarding risk management practices. I will keep you updated. Thank you.

Respondent 2: I appreciate you too and I am always available for you.

Interview with Respondent 3

Interviewer: Good afternoon. My name is Rasheed Bello. I am currently undertaken a research on risk management practices in Nigerian banks. In fulfilling the research objective, I have some series of questions to ask and I will appreciate your support in this area.

Respondent 3: I am ……. And I coordinate the risk management of this bank

Interviewer: How many years have you worked in the risk management.

Respondent 3: This is my twelfth year in risk management. But I have only spent three out of those twelfth year in this bank.

Interviewer: What is your expectation from risk management in your bank?

Respondent 3: Reduce financial losses is a fundamental expectation. However, risk management goes beyond financial losses. It includes operational and reputational losses. The loss of those two will result in much more than financial losses

Interviewer: How important do you think Risk Management is within your organisation?

Respondent 3: It very critical within my bank and other banks

Interviewer: Let me present the following list of risk to you and I would like to highlight those related to your bank.

Respondent 3: Our bank is a relatively small banks in Nigeria and we are faced with various types of risk. Going through the list, I will say market risk, solvency risk, liquidity risk, interest rate risk, credit risk, counterparty risk, off-balance sheet risk and strategic risk.

Interviewer: Among the risk you have highlighted, can you mention your top-five?

Respondent 3: I will go with credit risk, liquidity risk, off-balance sheet risk because we heavily involved in commercial paper and banker’s acceptance. I will also go for interest rate risk and solvency risk.

Interviewer: Thank you for response so far. I will be proceeding to the second part of the question. What do you think are the critical Risk Management issues?

Respondent 3: Based on my analysis, I will say the critical risk management issues are governance, corrupt legal system in banking, regulatory oversight, cyberattacks and unauthorised access to information resources, impact of macroeconomic environment, bad credit culture and credit management, nepotism by senior management and impact of rapid technological advancement

Interviewer: Do you think these Risk Management issues mentioned are all related to banks in Nigeria?

Respondent 3: Most are applicable. However, I will say regulatory oversight, bad credit culture and credit management are the most obvious.

Interviewer: Are all these issues mentioned are applicable to your bank?

Respondent 3: They are related

Interviewer: I will present another list to you. It shows those factors driving risk management in your bank. Can you identify those peculiar to your bank?

Respondent 3: I will pick customer involvement, change management, top management commitment, senior management support. I will equally say operation involving internal audits and control, trust. Let me see again. I will add level of investment and standardization of processes

Interviewer: Are there any additional critical success factors would you like to mention for effective risk management practices in banking industry.

Respondent 3: I think insider abuse is a major factor affecting effective risk management practices in the industry.

Interviewer: Do you have any comments or suggestions?

Respondent 3: I think the CBN needs to increase their oversight function of the bank. This will be a step in the right direction in deepening risk management practices in banks.

Interviewer: Would you like to have a summary of the study results sent to you by email?

Respondent 3: Yes and my email is ……………….

Interviewer: Thank you for your time and stimulating responses

Interview with Respondent 4

Interviewer: Hello. My name is Rasheed Bello. I am currently pursuing a PhD in Risk Management. As part of the academic requirement, I am conducting a research on the risk management practices in Nigerian bank. Can I meet you sir?

Respondent 4: My name is …….. and I am the head of risk management in this bank.

Interviewer: How many years of experience do you have working with risk management?

Respondent 4: I been in the saddle of risk management for about 3 years, but I have been in risk management in two other banks for about 10 years.

Interviewer: So, you have like 13 years experience in risk management

Respondent 4: Yes

Interviewer: Okay. So, what is your expectation from risk management in your bank?

Respondent 4: Reduce financial losses

Interviewer: Do you think risk management is important in your bank or will you say it is crucial or even not important?

Respondent 4: I will say it is important

Interviewer: Can you please go through this list and identify the type of risk faced by your bank?

Respondent 4: I can identify market risk, solvency risk, interest rate risk, liquidity risk, foreign exchange risk, operational risk, counterparty risk, credit risk sovereign risk.

Interviewer: Can you identify your top-five risk among the one you selected?

Respondent 4: Credit risk, liquidity risk, interest rate risk, foreign exchange risk and counterparty risk in that order

Interviewer: Thank you. I will be proceeding to the second part of the interview. What do you think are the critical Risk Management issues?

Respondent 4: I will say corporate governance issues are inexperience risk managers, corrupt legal system in banking, poor credit culture and its management, boards and management not committed to risk management, nepotism by senior management, ineffective risk management framework, staff in other units not embracing risk management cultures, cyberattacks and unauthorised access to information resources.

Interviewer: Thank you for your response. But do you think these Risk Management issues mentioned are all related to banks in Nigeria?

Respondent 4: I think they are mostly related to Nigerian banks

Interviewer: Are all these issues mentioned are applicable to your bank?

Respondent 4: Some are related to us. For instance, cyberattacks and unauthorised access to information resources and staff in other units not embracing risk management cultures.

Interviewer: Let me present another list to you and help me identify those that are peculiar to effective Risk Management Practices in your bank?

Respondent 4: I think change in corporate culture, customer involvement, information technology, trust and involvement of Bank governing bodies and readiness to widely support changes in the bank management

Interviewer: Are there any additional critical success factors would you like to mention for effective risk management practices in banking industry.

Respondent 4: I would have included bankwide risk management culture

Interviewer: Do you have any comments or suggestions?

Respondent 4: Based on my experience in risk management in different banks, one of the things I noticed is that management has a critical role to play cementing risk management practices in their banks

Interviewer: Would you like to have a summary of the study results sent to you by email?

Respondent 4: Why not? I can be contacted on …………

Interviewer: Thank you very much for your response. I will surely forward up with you to deliberate further.

Respondent 4: You are welcome

Interview with Respondent 5

Interviewer: My name is Rasheed Bello. I am undertaking a research on risk management practices, with focus on banks in Nigeria. I will be asking you some set of questions relating to this topic and I will appreciate your assistance on this. To simply the questions, I categorised the questions into Part 1 and 2. I will be starting with Part 1 now.

Respondent 5: Okay. You can proceed

Interviewer: How many years of experience do you have working with risk management.

Respondent 5: More than 10 years

Interviewer: What is your expectation from risk management in your bank?

Respondent 5: Reducing any form of losses, including financial losses

Interviewer: How important do you think Risk Management is within your organisation? Is it critical, important or not important?

Respondent 5: I will say it is important

Interviewer: Can you review this list and select the one relating to your bank

Respondent 5: I can identify market risk, solvency risk, interest rate risk, liquidity risk, foreign exchange risk, operational risk, regulatory risk, credit risk, counterparty risk, commodity price and sovereign risk

Interviewer: From this, can you identify your top-five?

Respondent 5: Liquidity risk, credit risk, interest rate risk, operational risk and regulatory risk.

Interviewer: That concludes the first part. I will be proceeding to the second part. My first question is what do you think are the critical Risk Management issues?

Respondent 5: The critical issues are executive buy-in and support, non-compliance with laid down risk management policies and procedures, nepotism by senior management, data availability, quality and analytics and cyberattacks, embedding risk management culture across the organisation - getting the business and process owners to take responsibility for risks issues and management, and availability of risk management technology that recognise local business dynamics.

Interviewer: Do you think these Risk Management issues mentioned are all related to banks in Nigeria?

Respondent 5: They are generic issues facing every bank in the country.
Interviewer: Are all these issues mentioned are applicable to your bank?
Respondent 5: Yes, they are
Interviewer: Can you review this list and identify factors that are peculiar to effective Risk Management Practices in your bank?

Respondent 5: Use of information technology, customer involvement, top management commitment, quality management system, change in corporate culture and trust
Interviewer: Are there any additional critical success factors would you like to mention for effective risk management practices in banking industry.
Respondent 5: I will include board commitment and buy-in
Interviewer: Do you have any comments or suggestions?
Respondent 5: It is vital for the CBN to have periodic audience with boards of various and sensitise them on the importance of risk management.
Interviewer: Thank you. I hope you would not mind sending a summary of the study results sent to you by email.
Respondent 5: I will surely appreciate that
Interviewer: Thank you for your time

Interview with Respondent 6

Interviewer: Good afternoon

Respondent 6: Good afternoon

Interviewer: I am conducting a research on the risk management practices in Nigerian banks and would like to discuss some issues relating to this

Respondent 6: Okay, I will be obliged to discuss this

Interviewer: Before proceeding, can you tell me how many years you have been working in risk management.

Respondent 6: I have worked all my life in risk management and I have been in the industry for close to two decades

Interviewer: What is your expectation from risk management in your bank?

Respondent 6: My expectation is to use risk management to mitigate losses

Interviewer: Do you consider risk management to be critical, important or not important in your bank?

Respondent 6: It is both critical and important

Interviewer: Can identify various risk within your bank from the following list

Respondent 6: I can identify market risk, solvency risk, interest rate risk, liquidity risk, foreign exchange risk to a certain extent, credit risk, counterparty risk and reputational risk.

Interviewer: Among your selected list, can you identify your top-five?

Respondent 6: credit risk, liquidity risk, interest rate risk, counterparty risk and reputational risk.

Interviewer: What do you think are the critical Risk Management issues?

Respondent 6: There are various critical issues in risk management. The notable ones are paucity of capital required to enable business and economic growth, cyberattacks that facilitate unauthorized access to critical information resources, conduct risks that indicate unethical employee activities that erode public confidence, delayed and corrupt legal system, non-compliance with laid down risk management policies and procedures, internal and external fraud leading to actual losses that impact negatively on earnings, unfavourable economic policies that culminate in stringent business environment and stifle growth, nepotism by senior management, lack of support and commitment from boards and senior management to risk management and lack of credit management.

Interviewer: Do you think these Risk Management issues mentioned are all related to banks in Nigeria?

Respondent 6: Those issues can be categorised as either general or bank-specific issues.

Interviewer: Are all these issues mentioned are applicable to your bank?

Respondent 6: Not at all. But some are applicable. Examples of those applicable to my bank are unfavourable economic policies, cyberattacks, lack of support from the boar and lack of capital

Interviewer: Can you review the items in this list and highlights those factors peculiar to your bank?

Respondent 6: Let me take it from the bottom of the list. I will pick trust, operational issues involving internal audit and control, leadership style of chief risk officer, automation, and level of investment.

Interviewer: Are there any additional critical success factors would you like to mention for effective risk management practices in banking industry.

Respondent 6: I think the list you presented is comprehensive enough and covers virtually everything

Interviewer: Do you have any comments or suggestions?

Respondent 6: None presently

Interviewer: Would you like to have a summary of the study results sent to you by email.

Respondent 6: Yes. This is my card and my email is stated there

Interviewer: Thank you for your time. I appreciate your input in my research.

Interview with Respondent 7

Interviewer: I am Rasheed Bello and I am PhD Risk Management student. I will be asking some questions relating to risk management practices in Nigerian banks and your bank in particular.

Respondent 7: Okay

Interviewer: How many years of experience do you have working with risk management. Is It less than 1 year, 1 -2 years, 3 - 5 years or more than 5 years?

Respondent 7: More than 5 years

Interviewer: What is your expectation from risk management in your bank?

Respondent 7: Mitigating financial losses

Interviewer: Do you think risk management is critical, important or not important in your bank?

Respondent 7: Important

Interviewer: Can you highlight risk types that are peculiar to your bank in this list?

Respondent 7: market risk, interest rate risk, operational risk, regulatory, credit risk, and reputational risk

Interviewer: Can you identify your top-5 among this?

Respondent 7: market risk, interest rate risk, operational risk, regulatory and credit risk.

Interviewer: What do you think are the critical Risk Management issues?

Respondent 7: I will identify weak corporate governance in banks and other financial institutions, poor Credit culture by Nigerians, weak Support from the Nigerian Government to enact acts that would improve the credit culture, delayed and corrupt legal system. lack of information sharing among Banks and cyberattacks, un-updated information and non-provision of quality data to the Credit Bureaus by the financial institutions, non-compliance with laid down risk management policies and procedures, inadequate oversight capacity of the regulator, nepotism by senior management, and not learning from previous mistakes by financial institutions.

Interviewer: Do you think these risk management issues mentioned are all related to banks in Nigeria?

Respondent 7: Some are applicable

Interviewer: Are all these issues mentioned are applicable to your bank?

Respondent 7: Some are applicable

Interviewer: Kindly identify factors driving risk management practices in your bank?

Respondent 7: Egalitarian culture, use of continuous improvement systems, use of information technology, customer involvement, trust, operations involving internal audits and control, and bank operation under a relevant risk management system

Interviewer: Are there any additional critical success factors would you like to mention for effective risk management practices in banking industry.

Respondent 7: Perhaps, ownership structure

Interviewer: Do you have any comments or suggestions?

Respondent 7: No

Interviewer: Would you like to have a summary of the study results sent to you by email.

Respondent 7: Yes

Interviewer: Thank you for your participation

Interview with Respondent 8

Interviewer: Good morning. My name is Rasheed Bello. I am currently pursuing a PhD in Risk Management at the Manchester Metropolitan University, UK. I am conducting a research on risk management practices and I am soliciting your assistance to share your perspective on the issue.

Respondent 8: Sure, I will be willing to share my perspective on the issue

Interviewer: Thank you. Q1. How many years of experience do you have working with risk management?

Respondent 8: About 7 years

Interviewer: What will you say is your expectation from risk management among the followings: Reduce financial losses, improve communication with the stakeholders, improve decision making, improve resource allocation or others?

Respondent 8: Reducing financial losses

Interviewer: How do you view risk management in your organisation? Is it critical, important or not important?

Respondent 8: Critical

Interviewer: Can you highlight the type of risk in your bank from the following list?

Respondent 8: I will go for market risk, solvency risk, interest rate risk, liquidity risk, foreign exchange risk, operational risk, regulatory risk is minimal, credit risk and technology risk

Interviewer: Can you identify your top-5 for this?

Respondent 8: market risk, solvency risk, interest rate risk, liquidity risk and operational risk.

Interviewer: What will you consider the critical risk management issues?

Respondent 8: Lack of effective Corporate Governance, management Override of Key Risk Management policies and nepotism by senior management. knowledge gap, inadequate investment in IT infrastructure and apathy to the concept of Risk Management especially by the business-facing personnel

Interviewer: Are these issues related to all Nigerian banks

Respondent 8: Yes

Interviewer: Are they peculiar to your bank?

Respondent 8: Yes

Interviewer: Can you identify the drivers of effective risk management from this list?

Respondent 8: Less bureaucratic structure, trust, operational involving internal audits and control, automation and level of investment

Interviewer: Are there any additional critical success factors would you like to mention for effective risk management practices in banking industry.

Respondent 8: I cannot think of any now

Interviewer: Do you have any comments or suggestions?

Respondent 8: No

Interviewer: Can I share my findings with you through your email?

Respondent 8: Yes

Interviewer: Thank you for your time. I appreciate

Interview with Respondent 9

Interviewer: My name is Rasheed Bello and I am conducting a research with a focus on risk management practices in Nigerian banks

Respondent 9: Okay. I am ….. and I work in risk management

Interviewer: How many years experience do you have risk management?

Respondent 9: 6 years

Interviewer: What is your expectation from risk management in your bank?

Respondent 9: Reducing financial losses for both banks and customers

Interviewer: How important do you think Risk Management is within your organisation?

Respondent 9: Very important

Interviewer: I have identified various types of risk on this paper. I would appreciate if you could review them and highlight those applicable to your bank

Respondent 9: Most of them applicable to us. Essentially, I will pick market risk, solvency risk, interest rate risk, liquidity risk, foreign exchange risk, operational risk, regulatory risk, credit risk, counterparty risk and sovereign risk

Interviewer: Out of this, can you pick your top 5?

Respondent 9: I will say credit risk, operational risk, interest rate risk, liquidity risk and market risk.

Interviewer: What do you consider the critical risk management issues?

Respondent 9: Majorly, I will say nepotism by top management, credit risk and operational risk including the emerging cyber risk, poor credit management, delay and corrupt legal system, lack of commitment from boards and senior management, and non-compliance with laid down risk management policies and procedures

Interviewer: Do you think all these issues are applicable to all Nigerian banks

Respondent 9: To a greater extent, they are all applicable

Interviewer: Will you say the same for your bank in particular?

Respondent 9: Absolutely

Interviewer: I have also identified factors that are peculiar to effective Risk Management Practices. Can you pick those affecting your bank from this list?

Respondent 9: Use of information technology, involvement of customer, investment level, bank operation under a relevant risk management system and trust

Interviewer: Are there any additional critical success factors would you like to mention for effective risk management practices in banking industry?

Respondent 9: Yes. I will incorporate credit score and credit bureau

Interviewer: Do you have any comments or suggestions?

Respondent 9: Risk management practices should the collective responsibility of everyone in the bank, not just those of us in this department.

Interviewer: Will you be interested in a summary of the study findings

Respondent 9: Yes, I will

Interviewer: This is to convey my sincere appreciation of your input. Thank you very much

Respondent 9: You are welcome

Interview with Respondent 10

Interviewer: My name is Rasheed Bello and I am conducting a research on risk management practices in Nigerian banks. Can you introduce yourself please?

Respondent 10: I am ….. and I head the risk management department

Interviewer: What is your experience like in risk management? Do you have less than 1 year experience in risk management or 1 -2 years or 3 - 5 years or more than 5 years?

Respondent 10: More than 5 years

Interviewer: What is your expectation from risk management in your bank?

Respondent 10: Mitigating losses

Interviewer: Do you consider risk management to be critical, important or not important in your bank?

Respondent 10: Risk management is critical

Interviewer: Let me present this list to you and I will want you to identify those risks that are applicable to your bank.

Respondent 10: I can identify market risk, interest rate risk, solvency risk, liquidity risk, foreign exchange risk, operational risk, regulatory risk, credit risk, counterparty risk, and off-balance sheet risk.

Interviewer: Can you pick your top 5 among this?

Respondent 10: market risk, operational risk, credit risk, liquidity risk and interest rate risk

Interviewer: What are the critical risk management issues faced in Nigerian banks?

Respondent 10: I think level of awareness and acceptable risk culture, nepotism by senior executives, non-compliance with laid down risk management policies and procedures, qualified and experienced risk professionals, lack of support from boards and senior management to risk management, cyberattacks and unauthorised access to information resources, lack of credit culture and credit management, and varying levels of risk management practice and investment across industries

Interviewer: Do you think these Risk Management issues mentioned are all related to banks in Nigeria?

Respondent 10: All banks face variants of all this

Interviewer: Are all these issues mentioned are applicable to your bank?

Respondent 10: Yes

Interviewer: Kindly look at these factors and select the appropriate ones for your bank's effective risk management practices

Respondent 10: In a non-sequential order, I will pick informatisation, trust, involvement of bank governing bodies, involvement of management, level of investment and operations involving internal audits and control

Interviewer: Do you want to mention other critical factors not highlighted in this list?

Respondent 10: I will say involvement of customers

Interviewer: Do you have any comment or suggestion on risk management practices

Respondent 10: Risk management practices is often overlooked, but it is very essential. As such, it is vital for every bank to deepen their risk management strategies

Interviewer: Okay. Thank you for time and response.

Respondent 10: You are welcome

Interviewer: Will you like a copy of the research findings?

Respondent 10: Yes

Interviewer: Once again, thank you for your time and input

Interview with Respondent 11

Interviewer: My name is Rasheed Bello. I would appreciate your response on some issues relating to risk management practices in Nigeria.

Respondent 11: Sure, I will be happy to share my perspective on the issue. By the way, my name is ….

Interviewer: What is your level of experience in risk management work?

Respondent 11: I can confidently say that I have about 15 years experience in risk management and it spans many banks

Interviewer: What is your expectation from risk management in your bank?

Respondent 11: Preventing or limiting losses

Interviewer: How important do you think Risk Management is within your organisation?

Respondent 11: Very important

Interviewer: Will you say it is critical, important or not important?

Respondent 11: I will rather say it is critical and important

Interviewer: I have a list of about 15 types of risk management. Can you identify those related to your bank from this list?

Respondent 11: I will go for market risk, solvency risk, interest rate risk, liquidity risk, foreign exchange risk, operational risk, legal risk, and credit risk

Interviewer: Among this, can you pick your first 5?

Respondent 11: market risk, credit risk, interest rate risk, legal risk and liquidity risk

Interviewer: What will you say are the critical risk management issues?

Respondent 11: Management of credit risk, capital adequacy, risk contribution, portfolio planning and management, operational Risk management/ Challenges in Operational Risk Management, cyberattacks and unauthorised access to information resources, delay and corrupt legal system in the banking sector in Nigeria, nepotism by senior management, management of Market & liquidity risk, and non-compliance with laid down risk management policies and procedures

Interviewer: Are all these related to all the banks in Nigeria

Respondent 11: You find them everywhere, but it is sometimes dependent on the size and the structure of the bank

Interviewer: Do they reflect the issues facing your bank?

Respondent 11: To a larger extent, yes

Interviewer: I have identified some critical success factors regarding risk management practices in banks. Kindly peruse the list and identify those related to your bank.

Respondent 11: Okay, I will say use of information technology, customer involvement, top management commitment, management support, trust, and bank operation under a relevant risk management system

Interviewer: Do you want to add to this list?

Respondent 11: I would add board support because I cannot find it in the list

Interviewer: Do you have any comments or suggestions?

Respondent 11: No

Interviewer: Will you be interested in a copy of my research findings to be sent to your email?

Respondent 11: Yes

Interviewer: Can I have your email?

Respondent 11: ……..

Interviewer: Thank you for concise response and thank you for your time

Respondent 11: You are welcome

Interview with Respondent 12

Interviewer: My name is Rasheed Bello. I am conducting a research focusing on risk management practices in Nigeria and I wish to explore your views on some issues relating to this.

Respondent 12: I am humbled to be a participant in your research activity

Interviewer: Let me start by asking for your years of experience in risk management work.

Respondent 12: 8 years

Interviewer: What is your expectation from risk management in your bank?

Respondent 12: Preventing losses or better still mitigating losses

Interviewer: How important do you think Risk Management is within your organisation?

Respondent 12: Very important

Interviewer: Can you go through this list and select those risks that are faced by your bank

Respondent 12: credit risk, liquidity risk, interest rate risk, counterparty risk, operational risk, and market risk

Interviewer: What are top 5 risks among this?

Respondent 12: credit risk, operational risk, liquidity risk, interest rate risk and operational risk

Interviewer: What do you think are the critical risk management issues?

Respondent 12: I will mention the followings. Changing regulatory landscape and intervention, credit risk with rising non-performing loans as a result of inefficient credit culture and management, non-compliance with laid down risk management policies and procedures, use of information technology , lack of support from boards and senior management to risk management, data privacy risk and poor legal system in Nigeria, cyber security risk, people risk and nepotism by top management, geopolitical issue/conflicts, vendor management risk, and possibility of litigation and legal proceedings on businesses

Interviewer: Are these related to banks in Nigeria

Respondent 12: Yes

Interviewer: How many of these affect your bank?

Respondent 12: The effect of all is virtually in my bank's DNA

Interviewer: Here is another list, but it enumerates critical success factors for effective risk management practices. Can you identify those relating to your bank?

Respondent 12: Trust, customer involvement, adequate financial support, management commitment, leadership role of CRO and operations of internal audits and control

Interviewer: Can you identify other factors?

Respondent 12: Buy-in of other staff

Interviewer: Do you have any comments or suggestions?

Respondent 12: No

Interviewer: Can I share my research findings with you via your email

Respondent 12: Yes, you can

Interviewer: Thank you for your time and support. I appreciate

Interview with Respondent 13

Interviewer: My name is Rasheed Bello and I am a PhD student conducting a research on risk management practices, with a focus on commercial banks in Nigeria.

Respondent 13: My name is ….. and I head the risk management department in this bank

Interviewer: How many years of experience do you have working with risk management.

Respondent 13: I have been in the industry for 13 years and I have only spent 2 years outside risk management. So, I can say I have been working in risk management for 11 years

Interviewer: Among the followings, what is your expectation from risk management in your bank? Reduce financial losses, improve communication with the stakeholders, improve decision making, improve resource allocation.

Respondent 13: Reduce financial losses

Interviewer: Do you consider risk management critical, important or not important?

Respondent 13: Critical

Interviewer: Kindly review the following list and itemise those risks facing your bank?

Respondent 13: Market risk, liquidity risk, credit risk, operational risk, interest rate risk, foreign exchange risk, legal risk and counterparty risk

Interviewer: Can you identify your top 5 from this?

Respondent 13: Credit risk, market risk, operational risk, interest rate risk, and foreign exchange risk

Interviewer: What will consider critical risk management issues?

Respondent 13: Corporate governance, nepotism by senior management and executives, credit risk. delay and corrupt legal system, lack of management support and commitment, non-compliance with laid down risk management policies and procedures, cyber security risk and access to information resources, liquidity risk, and strategic risk Management

Interviewer: Are all these found in all banks in Nigeria?

Respondent 13: Yes

Interviewer: Which of these are peculiar to your bank

Respondent 13: Nepotism by board and top management, lack of compliance with risk management procedures and cyber security

Interviewer: Let us consider another list focusing on drivers of effective risk management practices. Can you identify those related to your bank?

Respondent 13: Customer involvement, role of CRO, trust, automation, process standardization, management commitment and adequate financial resources

Interviewer: Will you include any other factors?

Respondent 13: Comprehensive customer database, especially those with credit facility

Interviewer: Do you have any comments or suggestions?

Respondent 13: No

Interviewer: Will you be interested in a copy of my research findings via your email?

Respondent 13: Yes

Interviewer: Thank you for your time and insight during the interview session. I appreciate

Interview with Respondent 14

Interviewer: My name is Rasheed Bello. I am conducting a research on risk management practices in Nigerian banks. How many years have been working in risk management both in this bank or if you have experience outside this bank?

Respondent 14: I have 7 years risk management experience in 2 banks

Interviewer: What will you say is your expectation from risk management? Will you say to reduce financial losses, improve communication with the stakeholders, improve decision making, improve resource allocation?

Respondent 14: I will say reduce financial losses

Interviewer: Will you consider risk management critical, important or not important?

Respondent 14: Critical

Interviewer: During my study, I have identified various risks. Can you identify those related to your bank from this list?

Respondent 14: Market risk, credit risk, operational risk, counterparty risk, interest rate risk, foreign exchange risk, and regulatory risk

Interviewer: Which are your top 5 among this?

Respondent 14: Market risk, credit risk, interest rate risk, operational risk and regulatory risk

Interviewer: What do you think are the critical Risk Management issues?

Respondent 14: Credit risk, liquidity risk, reputation risk, operational risk, information technology risk, human resources risk / nepotism, legal risk & Regulatory risk, and market risk.

Interviewer: Do you think these Risk Management issues mentioned are all related to banks in Nigeria?

Respondent 14: Yes

Interviewer: Which of this is applicable to your bank

Respondent 14: All

Interviewer: I will be focusing on drivers of effective risk management practices. From the following list, can you identify those related to your bank?

Respondent 14: Egalitarian culture, use of ICT, trust, involvement of internal audit and control, customer involvement, standardise process, management support, and top management commitment

Interviewer: Can you identify other factors?

Respondent 14: Modelling risk management

Interviewer: Do you have any comments or suggestions?

Respondent 14: No

Interviewer: Will you be interested in the dissemination of my research findings to you

Respondent 14: I will so much appreciate that

Interviewer: I wish to express my appreciation for given me your time and your input is highly valuable to my research. Thank you

Respondent 14: You are welcome

Interview with Respondent 15

Interviewer: My name is Rasheed Bello. I am undertaking a research activity on risk management practices in Nigerian bank. My first question will focus on your experience in risk management. How long, cumulatively, have you worked in risk management?

Respondent 15: 11 years

Interviewer: What is your expectation from risk management in your bank?

Respondent 15: Reduce financial losses

Interviewer: Will you view risk management as critical or as important or not important?

Respondent 15: Critical

Interviewer: From this list, can you identify risk faced by your bank?

Respondent 15: Market risk, solvency risk, interest rate risk, liquidity risk, operational risk, foreign exchange risk, regulatory risk, credit risk and technology risk

Interviewer: Can you identify your top 5 for this?

Respondent 15: Market risk, credit risk, operational risk, liquidity risk and interest rate risk

Interviewer: In your opinion, what do think are the critical risk management issues?

Respondent 15: I will pick nepotism by senior management, lack of operational risk management, lack of support from boards and senior management to risk management, corrupt legal system, poor credit culture and management of credit culture, non-compliance with laid down risk management policies and procedures, lack of commitment from top management and boards, cyberattacks and unauthorised access to information resources, and data availability.

Interviewer: Can you identify those related to Nigerian banks

Respondent 15: All

Interviewer: What about your bank?

Respondent 15: I will still say all

Interviewer: Here is another list. Can you identify drivers of effective risk management practices in your bank?

Respondent 15: Use of information technology, senior management support, change in corporate culture, strategic alignment, level of investment, trust, bank operation under a relevant risk management system, and automation

Interviewer: Can you identify other factors?

Respondent 15: Legal framework and board involvement in risk management

Interviewer: Do you have any comments or suggestions?

Respondent 15: Unfortunately, no

Interviewer: Can I send my research findings to your email?

Respondent 15: Sure, you can

Interviewer: Thank you for time and input

Interview with Respondent 16

Interviewer: Good morning. My name is Rasheed Bello. I am currently evaluating the risk management practices in commercial banks in Nigeria

Respondent 16: That sounds interesting. I am ……. and I am the head of this department

Interviewer: How many years of experience do you have working with risk management?

Respondent 16: 9 years

Interviewer: What is your expectation from risk management in your bank?

Respondent 16: Limiting losses

Interviewer: How important do you think Risk Management is within your organisation?

Respondent 16: Very essential

Interviewer: Can you have a look at this list and select the ones in your bank?

Respondent 16: Market risk, solvency risk, interest rate risk, liquidity risk, foreign exchange risk, operational risk, regulatory/legal risk, credit risk, counterparty risk, technology risk and sovereign risk

Interviewer: Which are your top 5?

Respondent 16: Market risk, interest rate risk, liquidity risk, regulatory/legal risk, and credit risk

Interviewer: What will you consider the critical risk management issues?

Respondent 16: I think critical risk management issues are cyber security risk and access to information resources, delay and corrupt legal system in banks, nepotism by senior management, poor credit culture and management of credit culture, lack of support from boards and senior management to risk management, and non-compliance with laid down risk management policies and procedures.

Interviewer: Are all these related to Nigerian banks

Respondent 16: Yes

Interviewer: Are they also related to your bank?

Respondent 16: I will single out the followings in my bank: cyber security risk, delay and corrupt legal system in banks, poor credit culture and management of credit culture, lack of support from boards and senior management to risk management.

Interviewer: Let me present you another list and I will appreciate if you could identify those related to your bank.

Respondent 16: Use of IT, customer involvement, trust, automation, involvement of the board, management support, CRO's leadership role and level of investment

Interviewer: Can you still identify other factors outside this list?

Respondent 16: Regulatory body involvement

Interviewer: Do you have any comments or suggestions?

Respondent 16: Risk management is collective decision and all encompassing. So, all hands must be on deck to achieve effective risk management practices

Interviewer: Would you like to have a summary of the study results sent to you by email.

Respondent 16: Yes

Interviewer: My sincere appreciation to you for your time despite your busy schedule

Respondent 16: That is ok

Interview with Respondent 17

Interviewer: My name is Rasheed Bello. I am currently pursuing a PhD in Risk management and my research focus is on risk management practices in Nigerian banks. Can I meet you please?

Respondent 17: My name is …, a senior manager and I coordinate the risk management department

Interviewer: Thank you for that brief introduction. How many years of experience do you have working with risk management?

Respondent 17: 19 years

Interviewer: What is your expectation from risk management in your bank? Is it reduce financial losses, improve communication with the stakeholders, improve decision making, improve resource allocation?

Respondent 17: Although I will say reduce financial losses, risk management is much deeper than this. It goes beyond finances. It includes all forms of losses.

Interviewer: Do you see risk management in your bank as critical, important or not important?

Respondent 17: Critical

Interviewer: Can you peruse this list and highlight those related to your bank?

Respondent 17: Market risk, credit risk, liquidity risk, interest rate risk, operational risk, regulatory risk, counterparty risk and foreign exchange risk

Interviewer: What will be your top 5 among these?

Respondent 17: Credit risk, market risk, liquidity risk, operational risk and regulatory risk

Interviewer: What do you think are the critical Risk Management issues?

Respondent 17: Critical risk management issues are essentially lack of effective corporate governance, poor credit culture and management of credit culture, delay and corrupt legal system in banking sector in Nigeria, data availability and lack of information sharing among banks, information technology risk, non-compliance with laid down risk management policies and procedures, nepotism by senior management, and cyber security risk and access to information resources.

Interviewer: Are all these related to all banks in Nigeria?

Respondent 17: Yes

Interviewer: Are they peculiar to your bank?

Respondent 17: Yes

Interviewer: From the following list, can you identify drivers of effective risk management practices in your bank?

Respondent 17: Egalitarian culture, use of information technology, customer involvement, boar involvement, management support, trust and informatization.

Interviewer: Do you have other factors?

Respondent 17: Synergy among the bank's departments

Interviewer: Do you have any comments or suggestions?

Respondent 17: Not really

Interviewer: Would you like to have a summary of the study results sent to you by email.

Respondent 17: Yes

Interviewer: Thank you for your time and audience

Interview with Respondent 18

Interviewer: My name is Bello Rasheed. Can I meet you?

Respondent 18: My name is ……..

Interviewer: I am carrying out a research on risk management practices in commercial banks in Nigeria.

Respondent 18: Okay

Interviewer: Based on this, I would like to elicit your views on some issues relating to this topic

Respondent 18: Okay

Interviewer: How many years of experience do you have working with risk management. Is it less than 1 year, 1 -2 years, 3 - 5 years or more than 5 years

Respondent 18: More than 5 years

Interviewer: What is your expectation from risk management in your bank? Is it reduce financial losses, improve communication with the stakeholders, improve decision making or improve resource allocation.

Respondent 18: Reduce financial losses

Interviewer: In your bank, will you say risk management is critical, important or not important?

Respondent 18: Critical

Interviewer: I have a list here containing various types of risk. Can you identify those facing your bank?

Respondent 18: Market risk, solvency risk, interest rate risk, liquidity risk, foreign exchange risk, operational risk, regulatory risk, credit risk, counterparty risk, sovereign risk and off-balance sheet risk.

Interviewer: Which ones will you consider your top 5?

Respondent 18: Market risk, credit risk, solvency risk, operational risk and interest rate risk.

Interviewer: What do you think are the critical Risk Management issues?

Respondent 18: I will say nepotism by senior management, use of information technology, lack of support from boards and senior management to risk management, data privacy risk, delay and corrupt legal system in Nigeria, non-compliance with laid down risk management policies and procedures, and cyber security risk

Interviewer: Are these peculiar to all banks in Nigeria?

Respondent 18: critical risk management issues are bank-specific issues and I will say each bank has its own fair share of this.

Interviewer: Okay. Which ones are related to your banks?

Respondent 18: Lack of support from boards and senior management to risk management, data privacy risk, and delay and corrupt legal system in Nigeria.

Interviewer: I will be presenting you with another list. This time, it focuses on drivers of effective risk management practices. Can you identify which ones relate to your bank?

Respondent 18: Customer involvement, trust, leadership role of CRO, training and development, support from management staff, commitment of the board, and automation.

Interviewer: Can you think of any other critical factors?

Respondent 18: Customer integrity

Interviewer: Do you have any comments or suggestions?

Respondent 18: No

Interviewer: Would you like to have a summary of the study results sent to you by email?

Respondent 18: Why not?

Interviewer: Thank you for your time and insight into the issues. I duly appreciate

Interview with Respondent 19

Interviewer: My name is Rasheed Bello and I am undertaking a research focusing on risk management practices in Nigerian commercial banks?

Respondent 19: That is awesome. My name is …..

Interviewer: Cumulatively, how long have your worked in risk management?

Respondent 19: 12 years

Interviewer: What is your expectation from risk management in your bank? Is it to reduce financial losses, improve communication with the stakeholders, improve decision making or improve resource allocation?

Respondent 19: Reduce financial losses

Interviewer: How important do you think Risk Management is within your organisation? Is it critical, important or not important?

Respondent 19: Critical

Interviewer: Kindly identify the risk types relating to your bank from this list?

Respondent 19: Credit risk, market risk, liquidity risk, solvency risk, foreign exchange risk, interest rate risk, regulatory risk, and counterparty risk

Interviewer: Can you highlight your top 5 among this?

Respondent 19: Credit risk, market risk, interest rate risk, operational risk and regulatory risk

Interviewer: What do you think are the critical Risk Management issues?

Respondent 19: Nepotism by senior management, boards and management not committed to risk management, impact of rapid technological advancement, non-compliance with laid down risk management policies and procedures, staff not embracing risk management cultures, cyberattacks and unauthorised access to critical information resources and capital adequacy, and poor credit culture and credit management

Interviewer: Are all this applicable to Nigerian banks?

Respondent 19: Yes

Interviewer: Are they all related to your bank?

Respondent 19: Yes

Interviewer: Can you identify factors driving effective risk management practice in your bank?

Respondent 19: Top management commitment, board support, customer involvement, trust, informatization, operations involving internal audit and control, and automation

Interviewer: Do you still have other factors driving effective risk management practices?

Respondent 19: No

Interviewer: Do you have any comments or suggestions?

Respondent 19: No

Interviewer: Would you like to have a summary of the study results sent to you by email.

Respondent 19: Yes

Interviewer: Thank you for your time and audience

Appendix 4: Letter of Introduction to conduct Research Questionnaire

Manchester Metropolitan
University

Faculty of Business and Law
Graduate School for Business and Law

Business School
All Saints Campus
Oxford Road
Manchester
M15 6BH
United Kingdom

GSBL@mmu.ac.uk
www.mmu.ac.uk/business-school

08 May 2018

Dear Sir/Madam

LETTER OF INTRODUCTION – RASHEED BELLO, DOCTORAL RESEARCHER

This is to confirm that Mr Rasheed Bello is a PhD student at Manchester Metropolitan University, undertaking a PhD since September 2015. The student is conducting research into **Risk Management Practices in the Commercial Banking Industry**, as part of his PhD.

Mr Bello will be in Nigeria from 16 May 2018 until 01 June 2018 and will be conducting interviews with a questionnaire with the risk management staff who are in charge of risk management practices within their respective institutions.

Please do not hesitate to contact me if you have any further queries regarding this.

Yours sincerely,

Maria Manifava
Research Officer
Faculty of Business and Law
Manchester Metropolitan University

Appendix 5: Questionnaire

Consent Form for Survey Research

Title of Research:
Risk Management Practices in the Commercial Banking Industry:
Analysis to examine the critical success factors that contribute to effective risk management practices inthe commercial banking industry in Nigeria.

Name of Researcher:
Rasheed A. Bello
Doctoral Researcher in Risk Management Practices in Commercial Banks **I** *Accounting, Finance & Economics. Manchester Metropolitan University* **I** *Faculty of Business & Law I All Saints Campus* **I** *Oxford Rd. Manchester* **I** *M15 6BH* **I** *email: Rasheed.a.bello@stu.mmu.ac.uk*

Purpose of Research:
The purpose of this research is to identify critical success factors for effective risk management practices from the perspective of the commercial banking industry in Nigeria.

With your participation, I hope to understand how your banks rank those critical success factors for effective risk management practices and how they are important

What is required in participation?
I shall need your participation in the questionnaire survey. If you are willing, I would like to request you to fill the enclosed questionnaire in order to accomplish our goal of data collection.

Your participation in this survey is voluntary and you can refuse to give answer of any question or even to withdraw your involvement at any point from this research project.

I would appreciate your point of view regarding the application of risk management practices at your bank.

Data protection:
I assure you that all responses to this survey will be kept **STRICTLY CONFIDENTIAL** and used for academic research purpose only.

All the information will be reported in a systematic way as to make direct association with yourself impossible.

Confidentiality will also be maintained by coding and storing all the questionnaires in such a way that it will be impossible to identify them directly with any individual.
For this purpose, these questionnaires will be organized by numbers rather than by names.

Consent: (If you want to participate, please tick on the appropriate boxes below)

I have read all the above information ☐

I am willing to participate in this research study ☐

Participant's Signature: ________________________ Date: _________________

Part I

The purpose of this section is to obtain general information related to your bank and yourself as an anonymous participant in this study

Bank Name:

Gender:

- ❍ Male
- ❍ Female

Age group:

- ❍ 20 - 29
- ❍ 30 - 39
- ❍ 40 - 49
- ❍ 50 and above

How many years of experience do you have working with risk management.

- ❍ Less than 1 year
- ❍ 1 -2 years
- ❍ 3 - 5 years
- ❍ 6 – 10 years
- ❍ More than 10 years

Part II

This section has been designed to obtain information regarding various factors of risk management practices.

- ✓ Kindly read the questions carefully and tick (√) the selected choice clearly.
- ✓ Please be honest in your responses as these are important and valuable for the study.

Factor 1 - Culture

Please rate the degree to which you agree / disagree with the following statements

	Strongly disagree (1)	Disagree (2)	Neither disagree nor agree (3)	Agree (4)	Strongly agree (5)
1. The culture of the bank must support the execution of effective risk management practices.	❍	❍	❍	❍	❍
2. The overall culture of the bank matters particularly when it comes to risk management practices.	❍	❍	❍	❍	❍
3. The bank existing culture helps you to know how to develop risk management strategies.	❍	❍	❍	❍	❍
4. The bank does not hesitate to change the old culture for its development of risk management.	❍	❍	❍	❍	❍
5. Changing in culture is not resisted here if they are good for the bank.	❍	❍	❍	❍	❍

Factor 2 – Information Technology

Please rate the degree to which you agree / disagree with the following statements

	Strongly disagree (1)	Disagree (2)	Neither disagree nor agree (3)	Agree (4)	Strongly agree (5)
6. Information Technology should be one of the most important things with which banks should be involved for effective risk management.	❍	❍	❍	❍	❍
7. The bank written information security policies and procedures reflect risk reduction strategies.	❍	❍	❍	❍	❍
8. Information Technology helps to identify threats to banking activities in an effort to determine cost effective risk management solutions.	❍	❍	❍	❍	❍
9. I.T is important to backup critical information using information technology for the bank risk management.	❍	❍	❍	❍	❍
10. I.T helps to assess the bank's risk management practices and the actions taken as a result of the bank risk assessment.	❍	❍	❍	❍	❍

Factor 3 – Customer Involvement

Please rate the degree to which you agree / disagree with the following statements

	Strongly disagree (1)	Disagree (2)	Neither disagree nor agree (3)	Agree (4)	Strongly agree (5)
11. Regular customer's update on the bank's risk management practices will deepen customers' involvement with the bank.	❍	❍	❍	❍	❍
12. Customers' involvement in risk management practices will strengthen the bank's risk management profile.	❍	❍	❍	❍	❍
13. Customers' identification of common warning signs of risk will enhance their involvement in risk management practices.	❍	❍	❍	❍	❍
14. High perception of bank's risk management profile will affect customers' involvement with the bank.	❍	❍	❍	❍	❍
15. Meeting with the customers periodically to review contract performance and operational issues is one of the core value of the bank to mitigate risk.	❍	❍	❍	❍	❍

Factor 4 – Training and Development

Please rate the degree to which you agree / disagree with the following statements

	Strongly disagree (1)	Disagree (2)	Neither disagree nor agree (3)	Agree (4)	Strongly agree (5)
16. The bank's policy encourages continuous training programme in the area of risk management.	❍	❍	❍	❍	❍
17. The bank offer adequate training and development for newly employed risk management personnel.	❍	❍	❍	❍	❍
18. The bank identifies the training needs for risk management personnel.	❍	❍	❍	❍	❍
19. The bank takes risk management training courses as a priority for all risk management personnel.	❍	❍	❍	❍	❍

Factor 5 – Communication

Please rate the degree to which you agree / disagree with the following statements

	Strongly disagree (1)	Disagree (2)	Neither disagree nor agree (3)	Agree (4)	Strongly agree (5)
20. There is effective Communication between the top management and other staffs to reduce risk in the bank.	❍	❍	❍	❍	❍
21. The critical role performed by the risk manager is to evaluate the risks and effectively communicate them to the management.	❍	❍	❍	❍	❍
22. The failure to communicate risks effectively was a prime reason behind the recent financial crisis.	❍	❍	❍	❍	❍
23. The bank has effective communication strategies through which they keep stakeholders informed of the risks they are exposed and how they are being managed in line with contemporary regulatory frameworks	❍	❍	❍	❍	❍

Factor 6 – Top Management Support and Commitment
Please rate the degree to which you agree / disagree with the following statements

	Strongly disagree (1)	Disagree (2)	Neither disagree nor agree (3)	Agree (4)	Strongly agree (5)
24. The top management understand the risks the bank is exposed to and aware of the control to mitigate those risks.	❍	❍	❍	❍	❍
25. Top management needs to create an internal environment for risk management practices.	❍	❍	❍	❍	❍
26. Top management promote and support risk management initiative.	❍	❍	❍	❍	❍
27. The bank top management need to adopt a management philosophy that is based on purpose, process, and people in order to maintain effective risk management.	❍	❍	❍	❍	❍

Factor 7 – Internal Audit and Compliance

Please rate the degree to which you agree / disagree with the following statements

	Strongly disagree (1)	Disagree (2)	Neither disagree nor agree (3)	Agree (4)	Strongly agree (5)
28. The bank promotes compliance as a core value of the bank to maintain effective risk management.	❍	❍	❍	❍	❍
29. Internal Control and Audit play a major role in effective implementation of risk management policies and process to mitigate risks.	❍	❍	❍	❍	❍
30. The bank promotes strict compliance to risk management policies.	❍	❍	❍	❍	❍
31. The Internal Control and Audit regularly monitor the bank risk management department to ensure compliance.	❍	❍	❍	❍	❍

Factor 8 – Strategic Alignment

Please rate the degree to which you agree / disagree with the following statements

	Strongly disagree (1)	Disagree (2)	Neither disagree nor agree (3)	Agree (4)	Strongly agree (5)
32. The bank has a strategy to support the development of risk management practices.	❍	❍	❍	❍	❍
33. The bank continuously review/feedback on risk management strategies.	❍	❍	❍	❍	❍
34. The bank has risk management procedures and process document and provide guidance to staff about managing risks.	❍	❍	❍	❍	❍
35. The level of the bank's risk management strategy is considered excellent.	❍	❍	❍	❍	❍

Factor 9 – Organizational Structure

Please rate the degree to which you agree / disagree with the following statements

	Strongly disagree (1)	Disagree (2)	Neither disagree nor agree (3)	Agree (4)	Strongly agree (5)
36. The bank's structure is important to risk management practices.	❍	❍	❍	❍	❍
37. The effectiveness of risk management practices depends on the bank's structure.	❍	❍	❍	❍	❍
38. The structure of the bank determines the functionality of risk management practices.	❍	❍	❍	❍	❍
39. The bank's structure has contributed immensely to the risk management practices.	❍	❍	❍	❍	❍

Factor 10 – Trust

Please rate the degree to which you agree / disagree with the following statements

	Strongly disagree (1)	Disagree (2)	Neither disagree nor agree (3)	Agree (4)	Strongly agree (5)
40. Trust is a driver of an efficient risk management	❍	❍	❍	❍	❍
41. Trust among the bank's staff is a prerequisite for mitigating risk in the bank.	❍	❍	❍	❍	❍
42. Effective risk management practices are linked with deepening trust among the bank's workforce.	❍	❍	❍	❍	❍
43. Trust among the bank's workforce enables them to focus on the mission to achieve effective risk management practices.	❍	❍	❍	❍	❍

Risk Management Practices

Please rate the degree to which you agree / disagree with the following statements

	Strongly disagree (1)	Disagree (2)	Neither disagree nor agree (3)	Agree (4)	Strongly agree (5)
44. Effective risk management practices is one of the bank's core objectives.	❍	❍	❍	❍	❍
45. There are common knowledge and understanding of risk management practices across the bank.	❍	❍	❍	❍	❍
46. The bank's risk management practices reduce financial losses to the bank and the customer.	❍	❍	❍	❍	❍
47. The bank's risk management strategy enhances the optimal allocation of available resources.	❍	❍	❍	❍	❍

Appreciation:

I thank you for your valuable time, response and participation in this research.

Your valuable contribution to this study will open new horizons for the development of the banking sector in Nigeria.

For further queries, please do not hesitate to contact the researcher or the director of studies.

Kind regards,
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Appendix 6: Extract from the Analysis

Appendix 6a: Correlation Matrix

(obs=19)

	Culture	IT	CI	OS	TMSC	SA	TD	Trust	COMM	IAC
Culture	.									
IT	.	.								
CI	.	.	.							
OS	.	.	.	1.0000						
TMSC	.	.	.	.	.					
SA	.	.	.	0.3944	.	1.0000				
TD	.	.	.	.	.	.	.			
Trust	.	.	.	0.6225	.	0.3469	.	1.0000		
COMM	.	.	.	.	.	.	.	.	.	
IAC	.	.	.	.	.	.	.	.	.	.

<u>Note:</u> (IT – Information Technology, CI – Customer Involvement, OS – Organisational Structure, TMSC – Top Management Support and Commitment, SA – Strategic Alignment, TD – Training & Development, COMM – Communication, IAC – Internal Audit & Compliance).

Appendix 6b: Principal Component Analysis

Principal components/correlation	Number of obs	=	19
	Number of comp.	=	3
	Trace	=	3
Rotation: (unrotated = principal)	Rho	=	1.0000

Component	Eigenvalue	Difference	Proportion	Cumulative
Comp1	1.92111	1.2169	0.6404	0.6404
Comp2	.704207	.329519	0.2347	0.8751
Comp3	.374688	.	0.1249	1.0000

Appendix 6b: Table 5.5: KMO Test

Kaiser-Meyer-Olkin measure of sampling adequacy

Variable	kmo
OS	0.5905
SA	0.7775
Trust	0.6008
Overall	0.6259