Determinants of dividend policy: empirical evidence from Nigerian listed firms.

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Determinants of Dividend Policy: Empirical Evidence from Nigerian Listed Firms

By

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Abstract

The aim of this research thesis is to contribute to already extensive corporate finance literature in the context of the Nigerian market by examining the determinants of dividend payouts by non-financial firms listed on the Nigerian Stock Exchange (NSE). Accordingly, two proxies for dividend policy were used- dividend intensity and the dividend payout ratio. Also, six explanatory variables- return of assets, size, debt ratio, growth opportunities, liquidity ratio and tangibility of assets - were selected, based on the theoretical predictions and empirical findings from the literature reviewed in order to explain the determinants of dividend payouts of non-financial firms in Nigeria. This study used a quantitative method design based on a positivist paradigm to draw its conclusions. Secondary data from the annual accounts of 74 non-financial companies listed on the NSE, for a five-year period from 2013 to 2017, were manually collected from companies' official websites, while market data was obtained from the Nigerian Stock Exchange. Thereafter, pooled OLS models were employed in analysis and testing of the research hypotheses formulated. The findings of this study indicate that dividend payouts were positively correlated to profitability, growth opportunities and liquidity, whereas size, debt ratio, and asset tangibility were all found to be negatively correlated to dividend payouts. Further proof reveals that time and industry effects do not impact much on the dividend payouts of Nigerian firms. Finally, this present study makes a significant contribution to both academia and practice. First, it provides a basis for future research, as it appears to be the first study in Nigeria to cover all sectors using up-to-date accounting and market data to investigate empirically the determinants of dividend payouts of non-financial firms listed on the Nigerian Stock Exchange. Secondly, this research was designed to advance knowledge of corporate finance in order to provide further evidence on the determinants of dividend payouts of such firms to facilitate comparison with other similar studies in emerging markets. Finally, it assists firms in understanding the dynamics of the Nigerian market, especially the institutional environment including the financial, legal and political system, with a view to making more informed decisions about the determinants of corporate dividend policy decisions.

Keywords: Dividend payout, dividend determinants, emerging markets, individual–level effects, time-effects, empirical study, pooled-OLS, Nigerian Stock Exchange.

Dedication

I dedicate this work to God almighty, the creator of heaven and earth, to my parents, siblings, friends and above all, my wife and son for their support and prayers throughout this academic journey.

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I could not stop without appreciating my friends, colleagues, and well-wishers. In particular, Jim, for accommodating me during my early days in the United Kingdom, also to Chidubem, Nwa, Joy, Cecilia, and Promise, to mention but a few for their support. Also worthy of mention is Alison Orellana, who always checked on me when it seemed all hope was lost. Thank you so much for the support. Finally, to Professor F.O. Okafor, and Professor Emma Okoye, who inspired me to pursue my dream against the odds. I pray that the good Lord in his infinite mercy reward you guys abundantly in Jesus name, Amen.

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List of Abbreviations

AFEM	Autonomous Foreign Exchange Market
CBN	Central Bank of Nigeria
CITA	Companies Income Tax Act
CURR	Current Ratio
DI	Dividend Intensity
DR	Debt Ratio
DPR	Dividend Payout Ratio
FEM	Foreign Exchange Market
GDP	Gross Domestic Product
GRT	Growth Opportunities
ISI	Import Substitution Industrialisation
SAP	Structural Adjustment Programme
SEC	Securities and Exchange Commission
FEM	Foreign Exchange Market
IFEM	Inter-Bank Foreign Exchange Market
SMEDAN	Small and Medium Enterprises Development Agency
RDAS	Retail Dutch Auction System
ROA	Return on Assets
WDAS	Wholesale Dutch Auction System
NEEDS	National Economic Empowerment and Development Strategy
NBS	National Bureau of Statistics

NSE	Nigerian Stock Exchange
PPTA	Personal Profit Tax Act
RDAS	Retail Dutch Auction System
SAP	Structural Adjustment Programme
SEC	Securities and Exchange Commission
SMEDAN	Small and Medium Enterprises Development Agency
TANG	Tangibility of Assets
VIF	Variance Inflation Factor
WDAS	Wholesale Dutch Auction System

CHAPTER ONE

Introduction

1.1 Background of the Study

Dividend policy is one of the most critical topics that has been subject to extensive research in the field of corporate finance. Dividends can be in the form of cash, giving away free stocks (bonus issue) or repurchasing shares (Arnold, 2009; Brealey et al., 2008). In particular, a cash dividend is the most common way of distributing earnings as it meets the liquidity needs of investors and sends vital information to shareholders about the current and future prospects of a firm (Pandey, 2004). However, cash dividends may reduce the amount of funds retained by a company to finance its future growth and investments; this may force a company to have more external borrowing which may lead to more regulatory scrutiny and higher costs of financing (Ozo, 2014).

The issue of determining the optimal payout has been debated among scholars in the corporate finance discipline for decades (Brealey and Myers, 2002). Addressing this challenge, there are broadly two schools of thoughts: the dividend irrelevance theory and dividend relevance theory. According to dividend irrelevance theory, postulated by Miller and Modigliani (1961) and supported by Black and Scholes (1974), dividend policy does not matter and therefore does not affect the value of firm. On the other hand, dividend relevance theorists have argued that dividend policy does matter and as such, affects firm value (Gordon 1959, 1962; Friends and Puckett, 1964; Bhattacharya, 1979).

Several theories such as bird-in-hand theory (Bhattacharya, 1979), clientele effect (Bhattacharya, 1979), agency problems (Jensen and Meckling, 1976), and catering theory (Baker and Wurgler, 2004a) have been developed and empirically tested in developed countries (e.g. Fama and French, 2001; Baker and Powell, 2012). In addition, more recent studies have found that corporate dividend policies vary across countries and are influenced by institutional factors such as political

instability, corruption, corporate governance, regulatory framework, and taxes (e.g. Booth and Zhou, 2017). Furthermore, empirical findings suggest that firms in the emerging economies face more 'financial constraints'[1] than their developed counterparts which may lead to low dividend payouts (Ramacharran, 2001; La Porta et al., 2000; Aivazian et al., 2003). Moreover, some studies suggest that the industry classification effect may influence dividend payouts (Barclays et al., 1995; Baker et al., 2001; Baker et al., 2008). These factors provide an extra motivation to examine the determinants of dividend payouts in the context of the Nigerian market within the Sub-Saharan Africa, which will assist in enlightening debates on comparable research issues in the field of corporate finance. In order to examine the influence of the institutional environment, several studies have been conducted in Nigeria to identify the determinants of dividend policy for certain industrial sectors (e.g. Okoro, Ezeabasili and Alajekwu, 2018; Bassey, Atairet, and Asinya, 2014; Uwuigbe, 2013). For example, Bassey, Atairat, and Asinya (2014), studied the determinants of commercial banks' dividend payouts. They found that leverage, earnings, and size were positively correlated to dividend payout. In addition, Okoro, Ezeabasili, and Alajekwu (2018) examined the determinants of dividend payouts of consumer goods firms listed on the Nigerian Stock Exchange (NSE) and found that dividend payouts were negatively correlated to firm size, leverage and profitability. However, none of these studies examined the determinants of dividend payouts of non-financial Nigerian listed firms; instead, they have either focused on financial service firms, or on specific sectors such as consumer goods, or oil and gas, with only a limited sample. Therefore, these deficiencies in research show that significant gaps exist in the literature, which this research seeks to fill.

For this purpose, the current thesis contributes to the existing literature by providing insight into the institutional environment within the Nigerian market and also fills the gap in knowledge by examining the determinants of dividend payouts of non-financial sectors from 2013 to 2017.

[1] Small and medium enterprises dominate developing countries' markets, and as such, they struggle to access funds from financial institutions and capital markets which may affect cash flows for payment of dividends when compared to their developed counterparts (Ramacharran, 2001).

1.2 Statement of the Problem and Rationale for the Study

There are many reasons why the researcher considered investigating the determinants of dividend payouts of non-financial firms listed on the Nigerian Stock Exchange. Firstly, to the best of researcher's knowledge, prior studies on dividend policies and their determinants in Nigeria have focused on either the oil and gas sector (e.g. Zayol and Muolozie, 2017) with nine firms over a period of five years from 2011 to 2014 or consumer sectors (e.g. Kajola et al., 2015) with nine firms from 1997 to 2011.

Secondly, evidence from the literature reviewed (e.g. Aivazian, 2003; Booth and Zhou, 2017) seems to suggest that limited studies have been done in the emerging markets of Sub-Saharan Africa, like Nigeria, despite the extensive dividend studies carried out in developed countries such as the UK, US, Australia and Canada. For this reason, there is limited knowledge of the determinants of dividend payouts in the emerging markets (Aivazian, 2003). Indeed, there are several reasons why the results found in developed countries may not hold true in developing countries. For example, empirical evidence from the literature suggests that factors surrounding the institutional environment, such as political instability, taxation, corporate governance, and the financial system may mean that results in the developed countries vary from those in the developing countries (Booth and Zhou, 2017; Glen et al., 1995; Ozo, 2014).

Finally, most of the dividend studies conducted in Nigeria are based on the financial sector because of data availability and stricter regulations[2], while fewer studies concern the non-financial sector (Ozo, 2014). However, findings from the literature suggest that industry classification may influence the determinants of dividend payout (Barclays et al., 1995; Baker and Powell, 1999; Baker et al., 2001). These deficiencies represent a huge gap in literature especially in developing countries, which this current research seeks to fill. In order to address this, the current study

[2] Financial institutions in Nigeria are mandated by the Bank and Other Financial Institutions Act, 2007 under Central Bank of Nigeria (CBN), to regularly publish its financial statements, maintain a capital adequacy ratio of 10% and also, 8% of its risk-weighted assets with the CBN; which may affect the policy of financial firms in Nigeria (Edet et al., 2014).

uses an 'up-to-date sample'[3] of all the listed companies on the Nigerian Stock Exchange, excluding the financial service sector because of its regulatory framework and high debt-equity ratio, in order to provide further evidence on why determinants of dividend payouts of non-financial firms may vary from that of the financial firms listed on the Nigerian Stock Exchange, thereby contributing to the literature on dividend decisions. The next section presents the aim and objectives of the research.

1.3 Research Aim and Objectives

The aim of this study is to examine the determinants of dividend payout of non-financial Nigerian listed firms. Other specific objectives are:

1. To review the theoretical and empirical literature on the dividend payout and its determinants in order to choose appropriate research design and develop research hypotheses.

2. To analyse the institutional environment of Nigeria and how it may affect the determinants of dividend payout of non-financial firms.

3. To examine the statistical correlation between the dividend payout of Nigerian non-financial listed firms and a set of firm-level determinants.

4. To evaluate the empirical results from this study in the context of previous theories and empirical findings.

1.4 Structure of the Thesis

The thesis is organised as follows: Chapter 2 discusses the Nigerian economy and its financial system from independence in 1960 to the present. The rationale for this chapter is to provide an insight into the environment where the current research is conducted. Section 2.2 gives an overview of the country and its geographical contiguity; Section 2.3 contains a detailed analysis of Nigerian economy. Section 2.4 deals with the Nigerian financial system, the markets, participants and

[3] Data from both the annual reports and the Nigerian Stock Exchange statistical bulletin from 2013 to 2017 to examine empirically the determinants of payouts of non-financial firms in Nigeria.

instruments traded. Section 2.5 examines the history of the Nigerian capital market; Section 2.6 discusses dividend payment in Nigeria. Section 2.7 examines the institutional environment and finally, Section 2.8 concludes the chapter. Chapter 3 reviews the relevant literature on dividend policy, with specific emphasis on dividend payout ratios and its determinants. The chapter is grouped into five sections. Section 3.2 presents a theoretical framework of dividend policy; Section 3.3 covers the empirical literature on dividend policy as conducted in the developed countries; Section 3.4 focuses on the empirical studies on dividend policy conducted in developing economies; Section 3.5 deals with the literature review concerning different industries; Section 3.6 covers the existing literature on dividend studies in Nigeria, and Section 3.7 concludes the chapter. Chapter 4 presents research philosophy, methodology and methods behind this current research. Section 4.2 discusses the philosophical paradigm underpinning this study; Section 4.3 covers data, the strategy for data collection, and the sample; Section 4.4 concerns models, hypothesis development, and research design, and reviews the rationale behind the chosen variables for this study. Finally, Section 4.5 discusses the ethical considerations applied consistently throughout course of the study, while Section 4.6 concludes the chapter.

Chapter 5 presents and discusses the empirical findings from the tests conducted based on the quantitative method influenced by the positivist paradigm discussed in Chapter 4, Section 4.2. The empirical results of this research were analysed and interpreted alongside other tests, in order to identify the determinants of payouts of non-financial firms listed on the Nigerian Stock Exchange. The chapter is divided into five sections as follows: Section 5.2 presents the descriptive analysis of the study; Section 5.3 discusses the correlation matrix and the variance inflation factor of the variables; Section 5.4 presents the empirical results from the pool OLS regression model, and finally, Section 5.5 concludes. Chapter 6 presents the summary of findings from the research, the conclusions, contributions, recommendations, limitations and suggestions for further studies. This chapter comprises the following: Section 6.2 presents the summary of the main findings of the study, Section 6.3 discusses the conclusions, Section 6.4 presents the policy

recommendations, and finally, Section 6.5 discusses the limitations and areas for further study.

CHAPTER TWO

Overview of Nigeria's Economy and its Financial System

2.1 Introduction

Chapter One talked about the background of this study, statement of the problem/rationale for the study, and significance of this study by pointing out the shortfalls in literature especially concerning emerging markets like Nigeria, which is the focus of this current research and concluded with the structure of the thesis. This chapter gives a detailed background of the Nigerian economy, growth and development since her independence from British colonial masters in 1960 up to the present. In particular, it provides an in-depth review of the Nigerian financial system, the markets, the participants, and various instruments traded in both markets. Furthermore, various regulators of the financial system as well as the mechanisms of Nigeria's corporate tax system in respect to dividend and capital gains are discussed too. The rest of the chapter is organised into four sections as follows: Section 2.2 gives an overview of Nigeria as a country and its geographical contiguity; Section 2.3 contains a detailed analysis of the Nigerian economy; Section 2.4 deals with the Nigerian financial system, the markets, participants and instruments traded; Section 2.5 examines the history of the Nigerian capital market; Section 2.6 discusses corporate policy in Nigeria as regards dividends; Section 2.7 examines the institutional environment in Nigeria and finally, Section 2.8 concludes the chapter.

2.2. Overview of Nigeria

The name Nigeria was derived from the River Niger in the southern part of the country; the name was given in the late 19th century by Flora Shaw, the wife of Lord Lugard, a British colonial administrator. Nigeria was formerly under the administration of Britain from 1861, following the annexation of Lagos into a British protectorate with a view to curbing and regulating the rising competition experienced in other parts of Europe like France and Germany (Ozo, 2014; Falola

and Heaton, 2008). Prior to the amalgamation of the southern and northern regions of Nigeria into a single protectorate in 1914, much of the country from 1886 to 1899 was governed by George Taubman Goldie, under the Royal Niger Company charter.

Nigeria has 36 states, 774 local government areas and the Federal Capital Territory Abuja, with a total population of over 250 million spread across 250 ethnic groups, though, the three major ethnic groups in Nigeria are Hausa, Igbo and Yoruba (Hakeem, 2006; Adigan, 2006). The lingua franca in Nigeria is English, while each of the tribes speak different languages. Most importantly, Nigeria is the most populous country in Africa and occupies the position as the sixth largest producer of oil in the world (Rotberg, 2008). Nigeria is one of the world's largest countries with a land mass of approximately 924,000 square kilometres (see the map of Nigeria in Figure 2.1 below).

Figure 2.1: Map of Nigeria

Source: https://www.nationsonline.org%2Foneworld%2Fmap%2F

The currency of Nigeria is the Naira denoted by ₦. It is sub-divided into 100 kobo. The Central Bank of Nigeria (CBN) is the only body with the responsibility of issuing legal tender and it controls the money supply.

2.3 Background of the Nigerian Economy

Nigeria is arguably the largest economy in Africa because of its population and huge market (International Monetary Fund, 2018). Oil is the major foreign exchange earner in Nigeria economy, contributing over 95% of total earnings (Natural Bureau of Statistics, 2019). Crude oil was discovered in commercial quantities in Nigeria in February 1956, after decades of unsuccessful exploration by the joint efforts of Shell Petroleum Development Company (Shell) and British Petroleum (BP). Prior to

its discovery in large quantities at Oloibiri-Bayelsa, in a concessionary alliance by Shell-BP, agriculture was the main foreign exchange earner for Nigeria, 'with cash crops such as rubber from Delta State in the south-south region, groundnuts, hides and skins produced by the northern region, cocoa and coffee from the western region, and palm oil and kernels from the eastern region of the country' (Okotie, 2018, p.1). However, the discovery of oil or so-called 'Black Gold' brought agriculture to an end and gave birth to corruption, greed, unrest, militancy and division in the country. For example, before the emergence of oil as the mainstay of Nigeria's economy, about 70% of her exports were agricultural produce, accounting for about 65% of Gross Domestic Products (GDP). This led to the introduction of an import substitution industrialisation (ISI) strategy by the government in order to protect infant industries in Nigeria. Furthermore, it is important to note that Nigeria recorded a steady increase in GDP growth on annual basis of about 3.1%, and maintained both inflation rates and unemployment in single-digits during this era (Ekpo and Umoh, 2014; Ozo, 2014).

In the 1980s there was a decline, following the boom of the 1970s, which was a big blow to her economy, due to over-reliance on petroleum as the major source of foreign exchange earnings. This period witnessed a sharp drop in global oil prices and output, creating bitterness and ethnic unrest amongst communities and nationalities which led, in turn, to the expulsion of over 200 million illegal immigrants between January 1983 and April 1985, mostly Ghana, Niger, Cameroon, and Chad in what was tagged as 'Ghana Must Go' by most people in Nigeria (Afolayan, 1988). That move was contrary to the spirit of the Africa charter which stipulates free movement of persons among member states; and as such, it received widespread criticism amongst the international community.

Nigeria embarked on many social, economic and political reforms in the 1980s, including a Structural Adjustment Programme (SAP), with the aim of diversifying the economy, deregulation, and the pursuit of non-inflationary growth, privatisation and commercialisation of enterprises (Mordi et al., 2008). The SAP brought significant growth before its abandonment in 1994, especially in the stock markets as a result of deregulation in the financial sector and privatisation of enterprises.

Overall, however, the scheme failed as a result of wavering commitment by the government, who sought to reduce 'the effects of belt-tightening measures[4] implemented' in the late 1980s (Donwa and Odia, 2010; Mordi et al., 2008).

Other economic policies have been introduced since the failure of the SAP to meet its objectives. For example, the Federal Government of Nigeria introduced a dual exchange rate between 1994 and 1998 in order to stabilise the value of the Naira resulting from the volatility in the oil prices. In addition, the Central Bank of Nigeria (CBN) in 1994 introduced reforms in the foreign exchange market (FEM) such as pegging the Naira exchange rate, monopolisation of foreign exchange, restricting bureaus de change to agents of CBN, discontinuation of open accounts and bills for collection as means of payments and prohibition of parallel markets. Also, in 1995, the CBN introduced the Autonomous Foreign Exchange Market (AFEM) in order to liberalise the market while maintaining its position as the main dealer of foreign exchange. However, the bureaus de change still act as official agents of the CBN in the buying and selling of foreign currency. Furthermore, in 1999, the CBN introduced another reform to include Inter-bank Foreign Exchange Market (IFEM).

All this reforms were geared towards improving the economy by ensuring that inflation was in check. Next, following the return to civil rule on May 29th 1999 that brought President Olusegun Obasanjo to power, Nigerians were bullish that the economy would improve. The Obasanjo-led administration made a significant impact on the economy of Nigeria through the establishment of various agencies such as the Small and Medium Enterprises Development Agency(SMEDAN), to ease difficulties in accessing credits for small scale businesses, boost production of quality products by SMEs, create job opportunities and enhance economic growth and development (Mordi et al., 2008). Furthermore, the regime also reintroduced the Retail Dutch Auction System[5] (RDAS) in 2002 to liberate the foreign exchange

[4] This refers to austerity measures used by the Nigerian government in the 1980s as a result of the fall in oil prices, involving cutting down budget spending and placing a ban on imports in order to cushion the effect on the economy.

[5] 'The Retail Dutch Auction System (RDAS) of foreign exchange was first introduced in Nigeria in 1987, and later reintroduced in 1990 and 2002 with the expectation that it will enthrone an efficient exchange rate system by eliminating volatility thereby stabilizing the Naira exchange rate. It was suspended after it failed to realize this goal. An evaluation of

market, conserve external reserves, and stabilise the value of the domestic currency (Naira). In addition, Wholesale Dutch Auction System[6] (WDAS) was introduced on February 20th, 2006 in Nigeria as a result of the failure of the Retail Dutch Auction System (RDAS) to 'stabilize the volatility in exchange value of Naira, reduce the high demand for the Naira and premium existing between the official and the parallel market' (Mordi, 2006, p.2). The introduction of the WDAS by CBN stabilised the exchange value of Naira and ensured that the difference between the CBN (official) and bureaus de change rates was within the 5% international standard limit.

According to Mordi et al., (2008):

> *The reforms in the foreign exchange market followed by trade policy reforms reintegrated the country into the global economy resulting to increased inflow of direct investment in the non-oil sector.*

Although this was a sound policy, the volatility in oil prices, insincerity, and lack of-commitment by the government of Nigeria have not helped its course in tackling the exchange rate problems. Also, in a bid to further improve the economy of Nigeria, the Federal Government of Nigeria in 2004 established the National Economic Empowerment and Development Strategy (NEEDS) aimed at achieving sustainable growth and reducing poverty levels to the barest minimum, whilst enhancing efficiency and effectiveness in governance (Salami, 2006). In addition to the NEEDS, the regime in 2004, introduced reforms in the area of banking led by Professor Chukwuma Soludo the Governor of the Central Bank of Nigeria (CBN) to ensure that all banks in Nigeria met the ₦25 billion minimum capital requirement by 31st December, 2005. The reform helped to stabilise exchange rates, strengthen the financial institutions and encouraged mergers and acquisitions. However, between 2005 and 2006, the GDP growth rates dropped to 2.81% and 0.38% respectively. It

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the auction system in the experimentation of 1987 and subsequently 1990 suggested that, the exchange rate remain unstable despite using two different instability indexes to evaluate the Retail Dutch Auction System' (Ogigio, 1996)

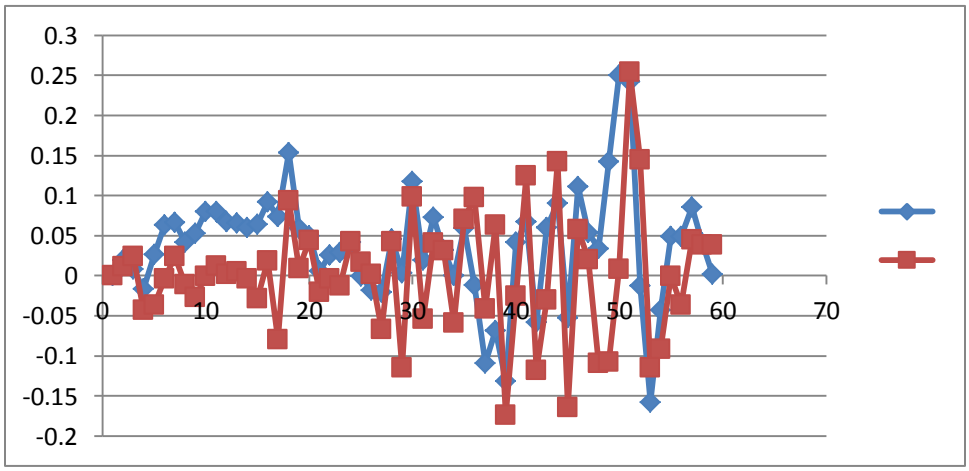
[6] 'The Wholesale Dutch Auction System (WDAS) is an auction system where the Central Bank of Nigeria(CBN) sells the foreign exchange to the Authorized Dealers(ADs) who bid on their own account and in turn sell the foreign exchange to End-Users at their current bid rate. Also, the Central Bank of Nigeria (CBN) is at liberty to buy from the Authorized Dealers (ADs) at their quote rate' (CBN Brief 2008).

rose back from 6.06% in 2006 to 6.59% in 2007 representing an increase of about 0.53%, and rose by 0.17% and 1.27% between 2008 and 2009 (National Bureau of Statistics, 2010)(see Figure 2.2 below).

Figure 2.2 GDP and Annual Growth Rate 1970-2010

Source: *African Economic Outlook (AEO) 2019*

Figure 2.3 GDP Growth Rates and Annual Change 1961-2018



Keys: Red represents GDP growth rates while the blue represents the annual change

Source: Compiled by the author

Again, the oil sector has been the highest contributor as it accounts for about 9.77% of total GDP compared to 9.38% in the previous year.

Nigeria's annual inflation still stood at double-digits. It increased slightly from 11.24 % in September 2019 to 11.61% in October 2019 hitting the highest since May 2018 (National Bureau of Statistics, 2019). Also, food prices increased due to the land border closure by the Nigerian Government, and global climatic change resulting in high rainfall which affected output. Furthermore, the unemployment rate rose from 18.1% in 2018 to 23.1% in the third quarter of 2019 and was expected to increase further to 27.40% in the last quarter of the year. (National Bureau of Statistics, 2019).

2.4 The Nigerian Financial System

The financial system includes financial institutions, intermediaries, instruments, markets, mechanisms, rules, and norms that regulate the flow of funds in a macro economy (CBN, 2007). It encompasses banks, non-bank financial institutions, and financial markets. In Nigeria today, there are 22 commercial banks operating under the regulation of the CBN (National Bureau of Statistics, 2019). Commercial banks in Nigeria act as deposit custodians, mobilisers of credit for deficit units (corporate institutions and governments), agents of payments and other roles as defined by CBN guidelines. Non-bank institutions, on the other hand, include insurance companies, venture capitalists, issuing houses, registrars, bureaus de change, mortgage institutions and the Nigerian Stock Exchange (NSE). They carry out functions similar to those of banks but are not banks and are regulated by the Federal Ministry of Finance (charged with managing and controlling public funds), the Nigeria Deposit Insurance Corporation (regulating the operation of insurance companies), the Securities and Exchange Commission (responsible for the regulation of capital markets), the Central Bank of Nigeria (regulating banks and money markets), and the Federal Mortgage Bank (which regulates mortgage institutions). The Nigerian financial market comprises the money market and the capital market (CBN, 2007) as discussed below.

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2.4.1 The Nigerian Money Market

The money market is a market for raising and trading in short-term highly liquid financial instruments (Howell and Bain, 2007; Dabwor, 2010). It provides a base through which short-term funds can be exchanged within a limited period, usually 360 days. The money market is regulated by the Central Bank of Nigeria (CBN). It plays an important role in interest rate stabilisation (Ikpeafan and Osabuohien, 2012). According to Agbada and Odemiji (2015, p.42), 'the money market participants include financial institutions and money market dealers that either borrow or lend typically for a short periods of time, usually, a year'. They include commercial banks, the Central Bank of Nigeria, discount houses, deposit money banks and individuals (Agbada and Odemiji, 2015). Also, in Nigeria, the various money market instruments traded include Treasury Bills (TBs), Bankers' Acceptances (BAs), negotiable Certificates of Deposit (CDs), and Commercial Paper (CP) among others. The instruments in the market are short-term maturity and liquid, and can easily be converted with little delay.

2.4.2 The Nigerian Capital Market

The capital market is a market where medium- and long-term instruments are traded. (Howells and Bain, 2007). The capital markets have two segments: primary and secondary markets. The primary market deals with newly issued securities while the secondary market is where existing securities are traded (CBN, 2007). Without a well-organised secondary market the primary market may not function effectively, as the secondary market complements the primary one. The participants within the Nigerian capital market include the Securities and Exchange Commission (SEC), which is charged with the responsibility of regulating all the activities of the Nigerian capital market. The Nigerian Stock Exchange (NSE) is a self-regulatory organisation which oversees the activities of all the listed firms. The Central Bank of Nigeria (CBN) regulates the banks and controls monetary policy. Other participants include the Federal Ministry of Finance, issuing houses (merchant banks and stockbroking firms), stockbrokers, trustees, registrars, investors, insurance companies, and pension funds. The various instruments traded in the Nigerian capital markets include equities, government bonds, industrial loan stocks,

unsecured zero coupons, mortgage loans, unit trust schemes, and unquoted or unlisted securities (CBN, 2007).

2.5 The History of the Nigerian Capital Market

The history of the Nigerian capital market could be traced back to 1950s when Nigeria was still under British control (CBN, 2007). During that time, the British government relied mainly on agriculture and mineral resources for raising funds (National Bureau of Statistics, 2018). When the British administrators realised that those sources of funds were insufficient, they reformed the system to enhance revenue sources through taxes. In 1946 Britain, the colonial administrator, established the ten year local loan-plan ordinance for the floating of the first indigenous stock, followed by federal government enactment of the securities to be traded (Odife, 2000). Next, the British administrators set up a committee headed by Professor Barback to devise a means of fostering the stock market in Nigeria and suggest ways of creating a sound environment for trading and transfer of shares (CBN, 2007).

Following the recommendations by the committee in May 1958, the Nigerian Stock Exchange came into effect on September 15th, 1960 as the Lagos Stock Exchange. The Exchange started operation with 19 securities listed for trading made up of 3 equities, 6 federal government bonds and 10 industrial loans (National Bureau of Statistics, 2017). In 1977, the Lagos Stock Exchange became the Nigerian Stock Exchange, with its head office in Lagos and branches, each with its own trading floor, in Kaduna, Port Harcourt, Kano, Onitsha, and Yola.

The Nigerian Stock Exchange does not close for lunch and opens from 10:00am daily and closes at 4:00pm with the sounding of a bell (Nigerian Stock Exchange website, 2019). The Nigerian Stock Exchange uses the Africa/Lagos time zone; it trades shares in Nigeria Naira (₦), and has an ISO 4217 currency code denominated as NGN (Nigerian Stock Exchange, p.1). Today, the Nigeria Stock Exchange is the 52nd largest exchange out of the 77 stock exchanges in the world, with 166 listed companies and over ₦14.288 trillion market capitalisation (Nigeria Stock Exchange fact sheet, 2019). In conclusion, the Nigerian capital market has

been charged with the duty of ensuring efficient allocation of funds to the most productive channels to boost economic growth. However, the NSE has faced many challenges, such as lack of information, inefficiencies in the capital market, high transaction costs, and lack of transparency. All this factors have affected the market, but with positive reforms in place, the market could stimulate economic growth and development.

2.6 Dividend Payments in Nigeria

This section discusses dividend payments in Nigeria. Usually, dividends can either be paid by cash, shares or share buybacks (Arnold, 2008). Nigeria's financial system did not allow for share buyback until a recent amendment within the Companies and Allied Matters Act 2004, which empowers firms to buy back its shares under stringent conditions[7] and specifies the categories of people whom they can buy from, in order to protect the debt holders and avoid dilution of the company's capital. Accordingly, Section 187 of this Act provides for the payment of the share buyback from the distributable profits of the firm. Also, Section 380 of the Act stipulates that firms can pay dividends from their revenue reserves, profits arising from the sale of its fixed assets or profits arising from the use of its properties. It also states that directors of the company may pay dividends either in the form of cash or bonus issues as they deem fit. The Act did not mandate companies to pay dividends, as seen in most developed countries; instead, they are allowed to decide when to pay and only if they would not wound-up after payment of cash dividends (see Companies and Allied Matters Act, as amended 2004).

The researcher seeks to examine the determinants of dividend payouts on Nigeria listed companies and to consider the implications when compared with prior empirical evidence documented in developed markets.

[7] Under no circumstance shall a company repurchase over 15% of its aggregate number of shares that is issued and fully paid-up equity within a particular year.

2.7 Institutional Environment in Nigeria

Nigeria has witnessed many reforms, from Structural Adjustment Programme (SAP) introduced in 1986 during military regime to the National Economic Empowerment and Development Strategy introduced by the civilian government in 2003. One of the major economic reforms (Banks Consolidation) by Olusegun Obasanjo in 2004 was geared towards strengthening the financial sector, as a result of the interest rate ceiling imposed by the Structural Adjustment Programme, in order to improve the availability of credit. These economic reforms liberated the financial sector from the real negative interest rates imposed by the SAP in the past by ensuring that a minimum capital base of ₦25billion was maintained by banks in Nigeria, thereby enhancing the liquidity of the financial sector. Also, the economic reforms brought about the deregulation of markets, an increase in GDP growth to 1.94% in 2019, lowering of taxes and a rise in foreign direct investment.

Following the enactment of the Investment and Securities Act in 2007 by the Securities and Exchange Commission (SEC), there has been a massive improvement in the market as a result of scrutiny and supervision of the Nigerian Stock Market by the SEC. As a consequence firms can now raise funds through the capital markets rather than depending on the retention of profits for investment purposes which may influence their dividend payout. Another peculiar feature of the stock market concerns the issue of shareholding. In Nigeria, most of the company's shares are placed in the hands of institutional investors who are mostly financial institutions, which reduces the stock float and increases the propensity of firms to pay cash dividends.

Corruption affects most countries globally (Ojeka et al., 2019). The effect of corrupt practices on the business environment has generated considerable debate among scholars. Some have argued that a weak legal system, which is seen in most corrupt countries, fails to protect the interests of shareholders and thereby discourages cash dividend payments (La Porta, 2000). Others view it as a more of a corporate governance problem (Xia and Fang, 2005). Recent studies have shown that the institutional environment determines corporate behaviour and dividend payouts. For instance, Faccio et al. (2001) and Brockman and Unlu (2009) share

the view that high dividend payouts by listed firms in the common-law countries, signify strong investor protection. However, this cannot be said of Nigeria, despite her being one of the common-law countries.

Since independence in 1960, Nigeria's economic environment has been marred by corruption, not only among public officers, but also across policy makers in various institutions (Ojeka et al., 2019). According to Transparency International in 2019, Nigeria ranked 146 out of 180 most corrupt countries in the world, as evidenced by a corruption perceptions index score of 26/100, which shows the prevalence of corrupt practices in the Nigerian environment. However, there are few empirical studies that examine the influence of corruption on firms' dividend payouts in the Nigerian context, despite substantial evidence from other countries (Kalcheva and Lins, 2007). Yaroson (2013) studied the effect of corruption in financial sectors, which led to bank failures in Nigeria after the merger of banks in 2004, using World Bank institutional quality indices such as political instability, rule of law, regulatory quality, control of corruption index, government effectiveness, voice and accountability, and found that bank failures could be linked to corruption in the institutional environment. Similarly, Ojeka et al. (2019) studied the impact of perceived corruption, institutional quality and performance on Nigerian listed firms. They found that corruption was more common in the non-financial sector than the financial sector in Nigeria, due to less strict regulation. They also found that the financial sector was more leveraged compared to the non-financial sector, increasing the risk appetite of the board to maximise owners' economic wealth through high dividend payouts. In other words, the excessive risk appetite of financial institutions in Nigeria, may have led to stricter regulation within the environment (Haan and Vlahu, 2012).

In conclusion, the institutional environment may be vital in examining the determinants of dividend payouts of firms in Nigeria, as suggested by prior studies (Ojeka et al., 2019; Yaroson, 2013). Also, it is expected that dividend payouts of firms listed on the Nigerian Stock Exchange may be different to other developing countries, as a result of a weak regulatory environment, widespread corruption, a weak legal system, weak corporate governance and a low retention ratio.

2.8 Conclusion

This chapter has examined the Nigerian economy and its financial system in order to provide in-depth information on the rationale behind this current research. The chapter discussed the economy of Nigeria during the colonial period, military, and civilian regimes, documenting the various reforms and programmes such as the SAP, and NEEDs which gave rise to different outcomes. The chapter also observed the various markets within the Nigerian financial system, their participants, instruments, and regulators. The history of the capital market was examined, including trading periods, instruments, unit of currency, the indices and its contribution to the growth and development of the Nigerian economy. The chapter also, looked at the corporate taxation system in Nigeria, specifically concerning dividends and capital gains with view to explaining why the results found in the developed countries may vary from those found in an emerging market like Nigeria, with a different institutional framework. It concludes with the institutional environment in Nigeria. The next chapter reviews existing literature to understand the theoretical and empirical underpinning of the corporate finance discipline.

CHAPTER THREE

Literature Review

3.1 Introduction

Dividend policy has been a subject of debate among academics and practitioners of corporate finance for decades, but no consensus has been reached (Baker and Powell, 1999). Many theoretical predictions have been put forward and empirically tested in order to explain why firms pay dividends, despite the difference in taxes on dividends and capital gains (Brennan, 1970; Elton and Gruber, 1970; Rozeff, 1982; Fama and French, 2001). One indicator of how challenging it is to understand dividend policy decisions, is evident in a comment by Black (1976, p.5):

> '*The harder we look at the dividend picture, the more it seems like a puzzle, with pieces that just don't fit together.'*

In support of Black (1976), Allen et al (2000 p.2499) stated:

> *'Although a number of theories have been put forward in the literature to explain their pervasive presence, dividends remain one of the thorniest puzzles in the field of corporate finance.'*

Therefore, this section reviews existing literature on dividend policy and its determinants both in developed and developing economies in order to understand research in the field of corporate finance, and with a view to formulating testable hypotheses. The chapter comprises five sections: Section 3.2 presents theories of dividend policy; Section 3.3 covers the empirical literature on dividend policy in the developed markets; Section 3.4 focuses on the empirical studies on dividend policy and its determinants in developing economies; Section 3.5 reviews literature based on industry sectors; Section 3.6 covers dividend studies in Nigeria, and Section 3.7 concludes the chapter.

3.2 Dividend theories

The main theories underpinning dividend studies which are discussed are, firstly, dividend irrelevance theory, and then dividend relevance theory, information

content (signaling) theory, followed by the bird-in-hand theory, clientele effects theory, tax preference theory, and agency cost theory. Finally, there is a summary of other dividend theories not directly related to the study but worth mentioning, such as catering theory, the maturity hypothesis and the residual theory of dividends.

3.2.1 Dividend Irrelevance Theories

There are many theories on dividends. But the most famous dividend theory was proposed by two American professors, Merton Miller and Franco Modigliani in their seminal work titled *Dividend Policy, Growth and the Valuation of Shares* and published in the Journal of Business (1961). According to them, the dividend policy of a firm does not affect the firm's value, because once an investment decision has been made for the present and future period, any surplus earnings may be distributed as dividends to the shareholders. They further argued that it does not matter to a shareholder (he is indifferent to) whether he receives a cash dividend or sells part of his shares to raise cash, for with a perfect market[8] and condition of certainty[9]; he can decide what is important to him (either dividends or capital gains) based on his needs. A shareholder who is in need of cash could dispose (borrow) of part of his holdings (homemade dividend) to raise cash or lend a dividend if he so desires to defer consumption. In conclusion, the dividend irrelevance theorem was based on the premise of a perfect capital market where investors are assumed to be rational[10] and dividend policy does not matter to the value of the firm. The dividend irrelevance theorem is supported by scholars such as Black and Scholes (1974) and Miller and Scholes (1982).

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[8] Under perfect capital market conditions, no single buyer or seller of securities can influence the prices of the securities, every trader has perfect knowledge of the market as information is free to all investors. Again, there are no transaction costs such as brokerage fees, and transfer taxes (Miller and Modigliani, 1961 p.412).

[9] Perfect certainty 'implies complete assurance on the part of every investor as to the future investment program and the future profits of every corporation.' (Miller and Modigliani, 1961 p.412).

[10] Rational behaviour shows that investors will always prefer a safe investment than a doubtful one of the same value. In other words, they want to maximise return with a given level of risk (Miller and Modigliani, 1961 p.412).

3.2.2 Dividend Relevance Theories

The proponents of dividend relevance theories believe that dividend policy affects the value of the firm. Gordon (1959) argued that in a world of uncertainty and imperfect markets, dividends matter and they are valued differently to capital gains. Therefore, he asserts that investors would prefer a current income to future income, because of uncertainty. Some of the supporters of dividend relevance theory include (Gordon, 1962; Elton and Grubber, 1970; Watts, 1973; Bhattacharya, 1979; Asquith and Mullins, 1983; Easterbrook, 1984; Benesh, Keown and Pinkerton, 1984; John and Williams, 1985; Miller and Rock, 1985). Further theories in support of dividend supremacy theory are discussed below.

3.2.3 Signalling (Asymmetric Information) Theory of Dividend Payment

The signalling hypothesis of dividend payment or the information content of a dividend is one of the theories that supports dividend relevance theory by suggesting that managers have a better knowledge of current and future prospects of the business than outsiders. In order to reduce information asymmetry, changes in the dividend may be used by them to signal future earnings and growth to the market. Therefore, an announcement about changes in the dividend could be interpreted by investors differently, depending on the type of news[11] it carries. Lintner (1956) suggests that managers are interested in dividend signalling and only increase the dividend when they are convinced that earnings have increased. This suggests that a rise in dividend payouts indicates long-run sustainable earnings; which is consistent with the 'dividend-smoothing hypothesis'.

The signalling hypothesis was documented earlier but it was modelled in the late 1970s and mid-1980s by Bhattacharya (1979), John and Williams (1985) and Miller and Rock (1985). In particular, Bhattacharya (1979) suggested that the cost of signalling is the transaction cost incidental to the external borrowing, whereas Miller and Rock (1985) argued that the dissipative cost was the distortion arising from the optimal investment decision, and finally, John and Williams (1985) suggested that the signalling costs to a firm were the tax liability on dividends in relation to capital

[11] Positive news (increase in dividend) will be perceived as a good omen by investors and will cause a rise in share price while negative news (dividend cut) will be seen as bad and lead to a fall in the share price.

gains. In summary, Bhattacharya (1979) Miller and Rock (1985) and John and Williams (1985) suggested that dividend paying firms (value-firm) will command a higher market price than non-dividend paying firms (growth) because of the signalling effect of announcements.

3.2.4 Bird-in-Hand Theory

Another view in support of the dividend relevance theorem is the bird-in-hand theory. According to this theory, in a world of uncertainty and imperfect markets, a dividend is valued differently to capital gains. Therefore, investors will prefer the dividend payment (a 'bird in the hand') today rather than the 'two in the bush' (capital gains) because of uncertainty. Gordon and Shapiro (1956) suggest that shareholders will prefer a cash dividend payment to capital gains, and firms with high dividend payout ratios will have a higher market value. The rationale behind the theory is that, high dividend payout ratios are positively correlated with the market value of the firm. However, the-bird-in-hand theory has been challenged. For example, Miller and Modigliani (1961) argued that a firm's risk is determined by the riskiness of its operating cash flows rather than the pattern in which earnings were distributed. Consequently, they disagreed with the theory by labelling it the 'bird-in-the-hand fallacy'. Likewise Bhattacharya (1979) shares the same view as Miller and Modigliani (1961), by suggesting that the logic behind the bird-in-the-hand theory is fallacious. He went on to argue that firm dividend payouts are influenced by risk associated with cash flows, but any increase in dividend payouts would not reduce a firm's risk. In conclusion, dividend payout decreases whereas the firm's risk increases, which is inconsistent with the bird-in-the-hand theory.

3.2.5 Clientele Effects of Dividends

Another justification for dividend relevance is on the basis of taxes on dividends and capital gains. Clientele effects or the preferred habitat hypothesis was formulated on the premise that firms are made up of different clienteles ranging from dividend clientele, capital gain clientele, risk-based and transaction-based clientele, each having different reasons for investing in a particular firm (Miller and Modigliani, 1961). According to Miller and Modigliani (1961), investors might be influenced by certain market imperfections, for example, differential tax rates and transaction

costs. They further argued that in the absence of taxes and transaction costs, dividends paid would not affect the firms' value. On the contrary, they argued that the variation between taxes on dividends and capital might induce an investor to buy stocks of a firm that pays dividends in order to avoid the transaction costs associated with selling shares. However, in reality, there are different taxes on dividends, capital gains and transaction costs, and these differences may influence their clienteles. Earlier dividend theories tend to focus on two types of clientele effect, namely, transaction cost minimisation and tax minimisation.

- *Tax-Induced Clientele Effects*

One of the arguments behind the dividend clientele hypothesis centred on the different tax treatment of dividends and capital gains. Prior studies argued that because dividends are often taxed at a higher effective rate than capital gains in most countries, investors already facing high marginal tax rates, or who cannot avoid paying taxes on dividends, may prefer not to receive cash dividends so as to minimise their tax liabilities (Brennan, 1970; Elton and Gruber, 1970; Litzenberger and Ramaswamy, 1979). Similarly, investors who can avoid paying taxes on dividends or face low margin tax rates do not mind receiving cash dividends (Han, Lee and Suk, 1999; Dhaliwal, Erickson and Trezevant, 1999).

- *Transaction Cost-Induced Clientele*

Bishop et al. (2000) posit that investors such as retirees, income-oriented investors and others who depend on dividend income for their consumption needs might prefer high and stable dividend-paying shares to selling part of their shares, which could result in a significant transaction cost. On the contrary, some investors, particularly the wealthy, may not need dividend income to meet their consumption needs, and may therefore favour low or no dividend payouts, to avoid the transaction costs associated with reinvesting the dividends. Furthermore, transaction costs are involved when both groups of investors decide to move from one company's shares to other types of security. However, Miller and Modigliani's (1961) view that homemade dividends are free, does not hold true because in a real world transaction costs are involved when securities are traded (Scholz, 1992).

Similarly, another effect of transaction costs on dividend policy is based on fact that dividend payments are an outflow of cash which may be used for investment purposes. In other words, when a firm pays a cash dividend, they may have to rely on external financing in order to execute their investment, which may in turn involve costs. For instance, if a firm issues equity to raise cash for its investment programme, or resorts to debt financing, there are costs. If the costs of external financing are significant, it is likely that firms would prefer to use retained earnings rather than external financing, which supports the pecking order theory (Myers, 2000). Prior studies have identified transaction costs associated with dividends: Bhattacharya's (1979) signalling model and Rozeff's (1982) trade-off model are amongst the justifications for clientele effects of dividends. Thus Rozeff (1982) argued that companies with high levels of debt should adopt a lower dividend payout ratio as higher payouts are associated with higher transaction costs[12] arising from the use of external financing. Therefore, on the basis of evidence from the literature, the dividend payout ratio and transaction costs are expected to be negatively correlated.

3.2.6 Agency Problems and Dividend Theories

Agency theory concerns the relationship between a principal and his agents (Arnold, 2005). The agency relationship often creates conflict which leads to agency problems (Jensen and Meckling, 1976) related, for example, to the cost of administration, restructuring and enforcing of contracts (Brealey, Allen and Myers, 2016). Ross et al. (2008) suggest that agency costs arise when managers try to enrich themselves at the expense of the owners or their creditors. Agency costs arising from conflicts between stakeholders in an organisation have been studied extensively. Prior studies have all investigated the impact of agency costs on the organisation and how the dividend payout ratio could be used as a tool for reducing agency costs (Jensen and Meckling, 1976; Rozeff, 1982; Easterbrook, 1984).

[12] External borrowing increases the costs to the firm in the form of high interest payments on the borrowed funds which may reduce the cash available for distribution as dividends.

Firstly, Jensen and Meckling (1976) suggest that managers tend to invest free cash flows, which should have been distributed to shareholders as dividends in unprofitable (negative NPV') projects, thereby creating an agency problem which may lead to high costs[13]. He further argued that in order to reduce the high costs associated with agency, firms pay cash dividends to shareholders instead of investing it in negative NPV projects. Secondly, Easterbrook (1984) asserted that higher dividend payouts reduced retained earnings available, which could force managers to borrow from the capital market in order to raise funds for its investments. Furthermore, he suggested that cash dividend payments limited the possibility of investment in sub-optimal projects, increased monitoring as managers sought external financing in the capital market, and finally, ensured that they acted in the best interests of the shareholders (Easterbrook, 1984).

Lastly, Rozeff (1982), Crutchley and Hansen (1989), and Chen and Dhiensiri (2009) argue that corporate ownership, leverage, size, and agency problems affect firm dividend policies. In other words, firms with lower (higher) levels of insider ownership may have higher (lower) dividend payout ratios. For example, an increase in insider ownership reduces agency costs, because whatever affects shareholders will also affect their equity ownership in the firm. Therefore, most agency theories found consistent evidence that 'dividend policy controls agency cost by reducing funds available for unnecessary and unprofitable investments, requiring managers to look for financing in capital markets which increases the monitoring' (Kilincarslan, 2015 p.73).

3.2.7 Other Theories of Dividend Payment

The catering theory of dividend payments, which was developed by Baker and Wurgler (2004a) as an alternative to Miller and Modigliani's (1961) dividend irrelevance theory, suggests that firm pays dividends as a result of investors' preference for current cash in order to meet their consumption needs rather than future cash. The maturity hypothesis developed by Grullon et al. (2002) argued that a firm's dividend payout ratios are based on their life-cycle rather than free

[13] Jensen and Meckling (1976) classified agency costs into three categories: monitoring expenditure, bonding expenditure and residual loss.

cash flows as suggested by Jensen and Meckling (1986), and finally, residual dividend theory argued that firms should only pay dividends when the demand for cash for projects with a positive net present values had been met.

3.3 Empirical studies on Dividend Policy Conducted in Developed Countries

The determinants of dividend policy have been widely investigated in the developed economies (see for example, Bradley et al., 1998; Aivazian et al., 2003; Mayers and Frank, 2004). Most of the previous studies conducted in this context have been based on testing the theoretical predictions of dividend policy by relaxing either one or more of its assumptions. Some of these studies have focused on the ownership structure (e.g. Jensen et al., 1992; Aivazian et al., 2003; Gugler, 2003; Elston et al., 2004; Bradford et al., 2013); other on agency costs (Rozeff, 1982; Crutchley and Hansen, 1989; and Chen and Dhiensiri, 2009); institutional environment (Booth and Zhou, 2017; Baker and Wurgler, 2004a; Grutton, Kanatas, and Weston, 2010); local culture (Pantzali and Ucar, 2014; Zheng, Ashraf, and Badar, 2014; Ucer, 2016); corporate governance (La Porta et al., 2000; Chan and Cheung, 2011; Chen et al., 2015; Oliveira and Jorge, 2016), and investors dividend clienteles (Becker et al., 2011; Graham and Kumar, 2006).

This review focused only on firm-level determinants relevant to this study, as there is a vast literature on dividend policies. One of the main determinants of dividend payouts, according to the literature is profitability. Empirical studies in developed countries have found a positive correlation between the dividend payout ratio and profitability (DeAngelo et al., 1992; Fama and French, 2001; Aivazian et al., 2001). It is argued that the more profitable a firm is, the more likely they are to pay a dividend (Aivazian et al., 2001). Fama and French (2001) argued that firms with higher profitability and low-growth opportunities tend to have a higher dividend payout ratio because of free cash flow. Similarly, Denis and Osobov (2008) found that a higher dividend payout ratio is associated with higher profitability, as a result of a higher retention ratio. Also, both Amarjit et al. (2010) and Gill et al. (2010) share the view of Denis and Osobov (2008) that profitability and dividend payout

ratios are positively correlated, in their study of the determinants of dividend policy of American service and manufacturing companies.

Another determinant of firm dividend payouts is size. Empirical evidence from the literature argues that large firms have access to external funds in the capital markets with fewer restrictions compared to small firms, and as a consequence, may pay high dividends (Jensen et al., 1992; Redding, 1997; Holder et al., 1998; Fama and French, 2000; Manos, 2002; Travlos et al., 2002). For instance, Holder et al. (1998) found a positive correlation between dividend payout ratio and firm size. They argued that larger firms have access to the capital markets, follow stricter mandatory disclosure requirements, are followed by financial analysts, and have a higher dividend payout ratio. Forace (2003) examined the dividend policy of Australian and Japanese listed firms, and also found size to be positively correlated with dividend payouts. However, Smith and Watts (1992) found no correlation between the dividend payout ratio and firm size.

Current earnings and past earnings have been documented as another factor influencing dividend payouts. Benarti et al. (1997) examined the determinants of dividend payouts using a sample of 1025 firms listed on the New York Stock Exchange (NYSE) for a period of 13 years from 1979-1991. They found a positive correlation between the dividend payout ratio and current earnings. According to Fama and Babiak (1968) the level of expected earnings influences dividend payouts, as firms are reluctant to increase dividends only when earnings is certain. Other studies have also found a positive correlation between earnings and the dividend payout ratio (Bradley et al., 1998; Mayers and Frank, 2004; Pappadopoulos and Dimitrio, 2007). However, Fama and Gaver (1993) examined the determinants of payouts using a sample of US firms; and found a negative correlation between the dividend payout ratio and growth opportunities. Similarly, Fama and French (2000) and Grullon et al (2002) found consistent results that the dividend payout ratio and growth are negatively correlated. They argued that mature firms have less investment, larger free cash flows, and are more likely to pay dividends compared to growing firms with larger growth opportunities. In

contrast, Abreu (2006) found a positive correlation between the target dividend payout ratio and growth opportunities as measured by growth in sales.

Another determinant of payouts as evidenced in the literature is debt. Prior studies (e.g., Rozeff, 1982; Aivazian et al., 2003b; DeAngelo and DeAngelo, 2007), have all investigated the determinants of dividend policy using debt as one of the proxies in their models. Some scholars have argued that agency costs associated with free cash flow problems may be mitigated through issuing debt or paying cash dividends to shareholders (Jensen and Meckling, 1979; Jensen, 1986; Crutchley and Hansen, 1989). They argued further that debt and dividends may serve as alternative measures in controlling agency problems; therefore, the two are inversely correlated. In addition, Rozeff (1982) suggests that the dividend payout ratio and debt are inversely correlated. He argued that high fixed interest obligations arising from the use of debt financing will reduce profit after tax, and consequently, reduce the dividend payout ratio. Aivazian et al (2003b) examined the determinants of dividend policy with a comparative analysis of developed and developing markets. They used the debt ratio as one of the proxies of dividend determinants and found a negative correlation between debt and the dividend payout ratio, consistent with results found in the developed markets. In addition, prior studies (e.g. Darling, 1957; Jensen, 1986; Manos, 2002; Kisman, 2013) have suggested that liquidity helps in maintaining sound financial manoeuvring and also influences dividend policy decisions of firms because the shorter the conversion of its stock to cash, the more likely that cash dividends will be paid to shareholders. Similarly, Manos (2002) and Ho (2003) agreed that higher dividend payouts are positively correlated with higher liquidity because firms that are liquid are better placed to pay cash dividends as no external borrowing is required which might otherwise increase interest payments, compared to illiquid firms. In support of Ho (2003), Gupta and Parua (2012) argued that higher liquidity shows that the firm is sound and capable of meeting its financial obligations. However, a few studies have documented a negative relationship between liquidity and the dividend payout ratio by suggesting that liquidity has no informational effect on the dividend payout ratio (Mehta, 2012; Al-Najjar, 2009).

Asset tangibility has also been investigated as another determinant of dividend payouts (e.g., Jensen and Meckling, 1986; Rajan and Zingales, 1995; Booth et al., 2001). For instance, Jensen and Meckling (1986) argued that managers can use non-current assets (fixed assets) to raise additional debt in order to increase monitoring by the debt holders. In support of agency theory, Aivazian, Booth, and Clearly (2003) suggest that firms with more tangible assets in relation to total assets have lower dividend payouts compared to firms with less tangible assets, in a market where short-term debt is the major source of funding. They went on to argue that, more tangible assets allow firms to borrow more to control agency costs rather than relying on dividends to mitigate agency problems.

3.4 Empirical Literature on the Determinants of Firm Dividend Policies in Developing Countries

Developing countries are different from their developed counterparts in terms of regulatory framework, environment, laws, corruption, and disclosures (La Porta et al., 1999, 2000; Aivazian et al., 2003a, 2003b). Accordingly, emerging markets may provide insight into corporate dividend behaviour, in the context of their weak institutional environment (Adaoglu, 2000). The following sections review key empirical studies on determinants of dividend policy in emerging markets. Several studies have been conducted to provide empirical evidence on the determinants of firms' dividend payout ratios from an emerging market perspective.

One explanation is based on earnings (e.g. Glen et al., 1995; Adaoglu, 2000; Aivazian, 2003). Glen et al. (1995) studied the dividend payout policy of firms in both developed and emerging markets. They found that the dividend payout behaviour of firms in developed countries differs from their developing counterparts because of volatility in earnings. Similarly, Adaoglu (2000) shares the same view as Glen et al. (1995) in a study conducted on listed firms in the Istanbul Stock Exchange, arguing that there is a positive relationship between the dividend payout ratio and earnings. Meanwhile, Aivazian et al. (2003b) examined the determinants of dividend policy in eight emerging markets. They found that the firm-level determinants affecting the payout ratios of US firms also affected the payout ratios of companies from these eight countries. In particular, the results reveal that

profitability, size, business risk and the market-to-book ratio are positively correlated with the dividend payout ratio, while the debt ratio and the dividend payout ratio are negatively correlated for both developed and developing markets. The basis of their argument was that developing countries have unstable financial systems, which make dividends less stable when compared to their developed counterparts with stable financial systems. Dividends become uncertain as they are based on earnings. They are less important in predicting future earnings for emerging markets.

Al-Najjar (2009) examined the determinants of dividend payouts of 86 non-financial firms listed on the Jordanian Exchange over a period of 10 years from 1994 to 2003. The results indicate that dividend payouts are positively correlated to profitability, growth opportunities, and firm size, and are negatively correlated to the debt ratio, asset tangibility and business risk. Mehta (2012) investigated the determinants of dividend payout decisions in 44 non-financial firms in the United Arab Emirates (UAE) over five years from 2005 to 2009. The study employed multiple regression analysis and the results revealed a negative correlation between dividend payouts and firm size, while a positive relationship was found between profitability, liquidity and leverage. Other reviews are presented in the summary table in Appendix 3.

3.5 Dividends and the Industry Effect

Literature suggests that the industry effect is one of the major reasons behind variations in dividend payouts (Ozo, 2014). For example, Lintner (1956) observes that mature firms are more likely to pay dividends than growth firms, due to their maturity. He maintains that most mature firms are stable, and can afford to pay higher dividends than the growth (newly established) firms. In addition, some studies have examined the correlation between the dividend payout ratio and industry dummies, but their findings have been inconclusive. For example, Baker et al., 2001; Baker et al., 2008; Baker and Powell, 1999) found a positive correlation between the dividend payout ratio and industry effect. In particular, Baker et al. (2000) surveyed NYSE listed companies to ascertain the managers' views on the determinants of dividend policy. They found that high payouts were associated with

the utilities, whereas manufacturing and retail sectors have moderate to low dividend payouts because of the highly liquid nature of their business, suggesting a variation in payouts among industries. Furthermore, they conclude that, investors' desire for current income over future income influences firms' dividend payout decisions. Similarly, Baker et al. (2008) examined the perception of managers of financial and non-financial institutions in Canada on the dividend payout ratio and industry effect, and also found a positive correlation. However, he claimed that the industry effect has diminished compared to previous findings, as earnings are the main determinant of dividend payouts over time. Therefore, empirical evidence from the literature in corporate finance supports the industry effect, showing that dividend payout is positively correlated. Therefore, we expect industry dummies to influence the dividend payouts of Nigerian listed firms, due to the uniqueness of each industry and its shareholders.

3.6 Prior Dividend Studies in Nigeria

This section reviews the empirical studies on determinants of dividend policy conducted in Nigeria in order to identify the gaps in the existing literature. It is important to note that prior Nigerian studies on the determinants of dividend policy have used small samples, only covering a few industries such as oil and gas, and consumer goods, and their findings were either contradictory or inconclusive.

A number of studies have examined the determinants of payout ratios of Nigerian listed firms using methods similar to those of research conducted in developed countries (Lintner, 1956; Friend and Puckett, 1964; Miller and Scholes, 1974; and Baskin, 1989). For instance, Uzoaga and Alozieuwa (1974) studied the pattern of dividend policy employed by Nigerian firms during the period of indigenisation and the participation programme in 1973. The study used a sample comprising 13 firms listed on the Nigerian Stock Exchange (NSE) over a period of four years. There was insufficient evidence to validate the 'classical influences'[14] that determine dividend policies in Nigeria during that period. However, they concluded that 'fear and

[14]Foreign investors dominate the Nigerian economy through ownership of shares. Indigenous investors had a notion that dividend payments are a waste of money as foreigners benefit more than the indigenous, and as a result they resist dividend payments.

resentment'[15] seem to have taken over from the classic forces. In addition, Soyode (1975) challenged the findings of Uzoaga and Alozieuwa (1974) on the grounds that they excluded certain relevant factors that determine the optimal dividend policy of a firm, such as earnings, size, and free cash flows.

Oyejide (1976) extended the previous work by Uzoaga and Alozieuwa (1974) and Soyode (1975) by testing dividend policy in Nigeria using Lintner's model as modified in Brittain (1964). The findings of the study showed that dividend payouts of Nigerian firms can be explained by conventional factors such as the target payout ratio, leverage, growth, and profitability. Odife (1977), in attempt to discover the rationale behind the dividend policy pattern of Nigerian firms, studied dividend policy in the era of indigenisation in Nigeria, and found a strong evidence to disagree with Oyejide (1976), for failing to adjust for stock dividends. Izedonmi and Eriki (1996) carried out a study on the dividend policy of Nigerian firms using Lintner's model and found consistent evidence that target and future payout ratios influence firms' dividend policy, thus supporting Oyejide (1976). In a similar manner, Adelegan (2003) examined the incremental information content of cash flows in explaining dividend changes and earnings in Nigeria. The study focused on 63 firms quoted on the Nigerian Stock Exchange from 1984-1997, and found results consistent with Oyejide (1976). Furthermore, Fodio (2009), Adelegan (2009), Adefila, Oladapo, and Adeola (2013), Oyinlola and Ajeigbe (2014), Duke, Ikenna and Nkamare (2015), and Egbeonu, Paul-Ekwere and Ubani (2016) carried out similar studies on the determinants of dividend policy of financial firms in Nigeria and found a positive correlation between dividend payout and firm-level factors (e.g., earnings, liquidity and size). Recent studies by Uwuigbe (2013) and Dada and Malomo (2015) found dividend payouts of Nigerian banks to be correlated with size, leverage, and board independence, while Edet et al (2014) found a negative correlation between dividend payout and liquidity. The rest of the studies can be found in Appendix 3.

[15] This alludes to agitation for foreign companies in Nigeria to sell 51% of their shares to the nationals so as to reduce their dominance.

In conclusion, the review shows that prior studies in Nigeria were mostly on the financial sector due to its strict regulatory framework and the availability of data (Edet, Atairet and Anoka, 2014). In other words, it may be due to the different techniques, time-variation and small sample size. Some studies have found profitability, liquidity, and size to be negatively correlated the dividend payout ratios of financial institutions (Saeed et al., 2013; Edet, Atairet and Anoka, 2014). However, there is also evidence from literature that suggests that profitability, liquidity and size are positively correlated to dividend payout ratios (Fama and French, 2001; Manos 2002). This current study attempts to fill a gap in the literature by examining the determinants of dividend payout ratios in the non-financial sector in Nigeria which has been neglected despite the fact that it represented 70% of Nigeria's GDP in 2019.

3.7 Conclusion

Having reviewed both theoretical and empirical literature on dividend policy and its determinants in both developed and emerging markets, it is evident that no single-theory is adequate to explain the 'dividend puzzle'. In this chapter, theories such as dividend irrelevance theory, bird-in-hand, the signalling hypothesis, agency cost theory, tax-related explanations, and other dividend theories such as catering theory, maturity theory, transaction cost theory and residual dividend theory were reviewed. However, all these theories and models were originally designed within the framework of developed markets and empirically tested without considering the particular characteristics of emerging markets such as political instability, corruption, weak financial systems, and poor regulation. For example, earlier studies on dividend policy were based on the UK, USA, Australia or Canada (Miller and Modigliani, 1961; Black and Scholes, 1974). In the last two decades, emerging markets have become an area of interest for researchers who have suggested that emerging markets are unique and may provide further explanations for the dividend puzzle (Aivazian et al., 2003b). Given that dividend studies conducted in Nigeria were based on specific sectors with limited samples, the researcher decided to focus research on the Nigerian context, contributing to knowledge by examining

the determinants of the dividend payout ratio in the non-financial sector, which has largely been overlooked.

CHAPTER FOUR

Research Philosophy, Methodology and Methods

4.1 Introduction

This section discusses the research methodology of this current study, describing the data set/sample, and then developing the research hypotheses and discussing the statistical methods used to test these hypotheses.

4.2 Philosophical Paradigm of the Study

A research paradigm comprises the ontology, epistemology, methodology and methods through which researchers view the real world (Saunders et al., 2012). 'Methods refer to as the techniques and procedure used for data collection and analysis which could either be quantitative or qualitative' (Crotty, 1998, p.3). Research methods can be linked back through methodology and epistemology, to an ontological position. It is impossible to embark on any research without any ontological and epistemological position because 'differing philosophical assumptions give rise to different approaches' (Grix, 2004 p.64). The research paradigm includes the set of beliefs and agreements shared between scientists about how problems should be understood and addressed (Kuhn, 1962). Ontology 'is the study of being' (Crotty, 1998, p.10). The ontological assumptions are concerned with what constitutes reality and every researcher must take a position regarding his perception of reality. Epistemology is 'the study of the form and nature of knowledge' (Cohen et al., 2007, p.7). Epistemological assumptions concern how knowledge can be created, acquired and communicated. Quantitative research is associated with the deductive approach; qualitative research is (often) attached to the inductive approach and mixed-methods is based on the abductive approach (Saunders et al., 2012). This current research is influenced by positivism and is empirical in nature.

4.3 Data and Sample

For the purpose of this study, accounting data of companies listed on the Nigerian Stock Exchange (NSE) was manually collected from their annual accounts, which were obtained from companies' official websites and market data from the Nigerian Stock Exchange. The accounting data was manually collected for the following reasons. Firstly, there are no readily available electronic databases, similar to DataStream and Bloomberg, which can provide complete accounting data for Nigerian listed firms (Adelopo, 2011; Egbeonu and Edori, 2016; Ozuomba and Ezeabasili, 2017). Secondly, to the best of my knowledge, there is no official national depository for Nigerian listed firms' annual accounts. Lastly, previous empirical studies focusing on the Nigerian market also had difficulty in collecting firms' accounting data and had to rely on hard copies of annual accounts (Nwidosie, 2012; Nduka and Titilayo, 2018; Uwuigbe, Jafaru and Ajayi, 2012). A company needs to meet the following criteria in order to be included in the final sample. Firstly, it must be quoted on the Nigeria Stock Exchange as at 1st January 2013, and its annual accounts for the period between 1st January 2013 and 31st December 2017 must be available on their official websites. Secondly, it has paid cash dividends from 1st January 2013 to 31st December 2017. Thirdly, all the financial firms comprising commercial banks, insurance companies, finance houses, primary mortgage institutions, community banks, discount houses, and bureaus de change are excluded because of their stricter regulations, dividend and investment policies. After using all the criteria listed above, the final sample consists of 74 companies divided into ten sectors with 370 observations (see Table 4.1 below for the sectoral breakdown and Appendix 1).

Table 4.1. Sectoral Classification of Firms Listed on the Nigerian Stock Exchange

Categories	Sectorial Classification	Total Number	Selected Sample
A	OIL AND GAS	12	10
B	FINANCIAL SERVICES	53	Non
C	ICT	9	4
D	INDUSTRIAL GOODS	13	11
E	CONSUMER GOODS	20	17
F	SERVICES	25	12
G	CONGLOMERATES	6	4
H	HEALTH CARE	10	7
I	AGRICULTURE	5	4
J	NATURAL RESOURCES	4	2
K	CONSTRUCTION / REAL ESTATE	9	3
TOTAL	**11**	**166**	**74**

Source: Compiled by the Researcher

4.4 Models and Hypotheses

4.4.1 Regression Model

This study aims to examine empirically the determinants of the dividend payout ratio of non-financial firms listed on the Nigerian Stock Exchange. The study has a panel dataset of 74 non-financial companies listed on the NSE over a five-year period of 2013-2017. Panel data consists of time-series and cross-sectional dimensions across time (Hill, Griffiths, and Lim, 2007). Panel data estimates are more reliable as they reduce bias due to aggregation (Baltagi, 2001). Panel data can be balanced or unbalanced, short or long panel (Stock and Watson, 2003; Baltagi, 2001). Due to missing observations, as a result of mergers and acquisitions, the study sample was limited to five years from 2013-2017, and therefore provides a balanced panel data with 370 observations over the period. This study uses pooled panel regressions in order to test the hypotheses formulated on the basis of existing literature on the firm-specific determinants of dividend payouts in Nigeria.

To test the relationship between dividend payouts and firm-level determinants, we consider the following models:

General panel data model = $Y_{it} = \beta 0 + \beta 1X1_{it} + \beta 2X2_{it} + \ldots\ldots\beta nXn_{it} + \varepsilon_{it}$ ..... (1)

Where:

Y = dependent variable to be estimated

t = time dimension

I = individual entity

β0 = intercept

β1, β2, and βn= coefficient of the explanatory variables

X1, X2…..Xn are explanatory variables

ε_{it} = error term within entity

Model Specification for this study:

$DI_{i,t} = \beta 0 + \beta 1ROAi,t + \beta 2sizei,t + \beta 3GRT\ i,t + \beta 4DRi,t + \beta 5Liqi,t + \beta 6TANGi,t + \beta tYEARi,t + \beta jINDUSTRYjt + \varepsilon it$.....(2)

Alternatively:

$DPR\ i,t = \beta 0 + \beta 1ROAi,t + \beta 2sizei,t + \beta 3GRT\ i,t + \beta 4DRi,t + \beta 5CURRi,t + \beta 6TANGi,t + \beta tYEARt + \beta jINDUSTRYjt + \varepsilon it$.....(3)

where: $DI_{i,t}$ denotes the dividend payout ratio for firm i in year t (i=1,….,N; t=1,…, DI) used as the dependent variable of the study; DRPit represents the alternative proxy for the dependent variable for firm I in year t (I =1,…N; t=1,…, $DI_{i,t}$); independent variables are ROAit, which measures the return on assets for firm I in year t; size of each firm (sizeit), leverage ratio (DRit), growth rates (GRTit), and liquidity ratio (CURRit) for firm i at time t; β0, β1, …, β6 are parameters to be estimated; εit is an idiosyncratic disturbance term.

4.4.2 Definition of Variables and Development of Hypotheses

The empirical model for this study is largely based on the theoretical model used by Gugler (2003) and Aivazian et al (2003). They studied the determinants of dividend policy in the emerging markets using dividend payout ratios as proxies for dividend policy. Prior studies used performance indicators such as firms' earnings, growth rate, and level of debt, lagged price/earnings ratio and size as control variables in the model (Baskin, 1989). This study employs two proxies for the dependent variable, namely dividend intensity and the dividend payout ratio. The latter was used as an alternative proxy for the dependent variable. The variables for this research are defined below.

Dependent Variable (Dividend Intensity)

Dividend intensity is used as the main proxy for the dependent variable in this study. Following previous studies (e.g. Fama and French, 2002; Aivazian et al., 2003; Kumar, 2006), this study calculates dividend intensity as the ratio of the total cash dividend paid by a firm in one year to the book value of its assets at the end of that year. The dividend payout ratio is used in this study as an alternate proxy for corporate dividend policy. It is the proportion of net earnings paid out to

shareholders in the form of dividends. Following previous studies (e.g. Gugler, 2003; Aivazian et al., 2003), the dividend payout ratio is calculated as the total annual ordinary dividend paid to shareholders divided by profit after tax less the preference dividend for that year.

Profitability (ROA)

The corporate finance literature suggests that profitability plays a vital role in firms' payout decisions (Bhattacharya, 1979; Miller and Rock, 1985). It is argued that dividends are paid out from current or past profits and therefore firms that make more profit may be inclined to pay out higher cash dividends to shareholders. In seeking empirical evidence in support of Bhattacharya's (1979) theoretical predictions, Miller and Rock (1985), and John and Williams (1985) found a positive correlation between higher dividend payouts and profitability. Also, recent empirical studies have found that dividend payout ratios and profitability are positively correlated (Adaoglu, 2000; Aivazian et al., 2003; Al-Malkawi, 2005). Therefore, I formulate the following hypothesis regarding the relationship between dividend payout ratios and profitability:

H1: Dividend payout is positively correlated to firms' profitability.

Firm Size

The size of a firm is one of the main determinants of dividend payout decisions. In this study firm size is measured as the natural logarithm of total assets of the firm, in line with prior empirical studies (Hussainey et al., 2011). Firstly, size may serve as a proxy for information asymmetry: larger firms are perceived to have a lower degree of information asymmetry. For example, larger firms face stricter mandatory disclosure requirements, are followed by more financial analysts, and also may pay higher cash dividends. Secondly, size may act as a proxy for access to external capital markets. Larger firms face fewer constraints in accessing external funds from capital markets with lower costs than smaller firms, and they can afford to pay higher cash dividends (Gaver and Gaver, 1993). Other studies have also found a positive correlation between dividend payout ratios and size (Manos, 2002; Travlos

et al., 2002; Al-Malkawi, 2005). Therefore, I formulate the following hypothesis regarding the relationship between dividend payout and firm size:

H2: There is a positive relationship between firm size and dividend payout.

Growth Opportunities

Growth opportunities are measured in this study as the ratio of book value per share to market value per share (e.g. Chang and Rhee, 2003; Jaara et al., 2018). There is some evidence in the literature that growth potential and dividend payments are inversely related, as it is argued that a growing firm needs cash for investment and therefore, growth opportunities may force them to pay a low or no dividend (Gaver and Kenneth, 1993; Faccio et al., 2001; Baker and Powell, 2012). In support of Gaver and Kenneth (1993), Deshmukh (2003) and Aivazian et al. (2003) argued that dividend payout and growth opportunities are negatively correlated. They suggested that mature firms pay higher dividends because they have fewer growth opportunities, while growing firms pay lower dividends because of lower free cash flows and huge investment opportunities. In a similar vein, Smith and Watts (1992) found a negative correlation between dividend payout ratios and growth opportunities. They suggest that high dividend payout ratios are negatively correlated to growth opportunities because a high dividend payout reduces cash available for future corporate earnings growth. Therefore, I hypothesise that:

H3: There is a negative relationship between dividend payout and growth opportunities.

Debt Ratio (Leverage)

Prior studies have measured the debt ratio as the ratio of total debt to total assets of the firm (Rozeff, 1982; Aivazian et al., 2003b; DeAngelo and DeAngelo, 2007). The same definition is used by this study. Some scholars have argued that agency costs associated with free cash flow problems may be mitigated through issuing debt or paying cash dividends to shareholders (Jensen and Meckling, 1979; Jensen, 1986; Crutchley and Hansen, 1989). They suggest that debt and dividends may serve as alternative measures in controlling agency problems and therefore the two

are inversely correlated. In addition, Rozeff (1982) suggests that dividend payout and debt are inversely correlated. He argues that high fixed interest obligations arising from the use of debt financing reduce profit after tax, and consequently reduce dividend payout. Hence, I formulate the following hypothesis:

H4: There is a negative relationship between debt ratio and dividend payout.

Liquidity

In line with previous literature (e.g. Jensen, 1986; Manos, 2002), we proxy liquidity by the current ratio defined as current assets divided by current liabilities in one year (Al-Najjar, 2009; Imran, 2011; Kisman, 2013). Prior studies have suggested that liquidity helps in maintaining sound financial manoeuvring and also influences firms' dividend policy decisions, because the shorter the conversion of its stock into cash, the more likely the firm is to pay cash dividends to shareholders (Darling, 1957). Similarly, Manos (2002) and Ho (2003) agree that higher dividend payouts are positively correlated with higher liquidity, because firms that are liquid are better placed to pay cash dividends as no external borrowing is required, which might increase interest payments compared to illiquid firms. In support of Ho (2003), Gupta and Parua (2012) argue that higher liquidity shows that the firm is sound and capable of meeting its financial obligations. However, a few studies have documented a negative relationship between liquidity and dividend payout ratio, suggesting that liquidity may have no informational effect on dividend payout ratios (Mehta 2012; Al-Najjar, 2009). Therefore, the following hypothesis is formulated:

H5: There is a positive relationship between dividend payout and liquidity.

Asset Tangibility

Tangible assets are those physical assets that can be measured in monetary terms (Pandey, 2005). Tangibility of assets is measured in this study as the ratio of fixed assets to total assets (e.g. Rajan and Zingales, 1995; Booth et al., 2001). Jensen and Meckling (1986) argued that managers can use non-current assets (fixed assets) to raise additional debt in order to increase monitoring by debt holders. In

support of agency theory, Aivazian, Booth, and Clearly (2003) suggest that firms with more tangible assets in relation to total assets have lower dividend payouts compared to firms with fewer tangible assets, in a market where short-term debt is the major source of funding. For example, more tangible assets allow firms to borrow more to control the agency costs rather than relying on dividends to mitigate agency problems. Hence, I formulate the following hypothesis as:

H6: There is a negative relationship between dividend payout and asset tangibility.

Time Effect

This study employs time effects in the regression models in order to control for unobserved time variant effects due to institutional environment factors such as political instability, corruption, economic recession, and regulatory changes (Wei et al., 2011; Setia-Atmaja et al., 2009; Chen et al., 2005). Therefore, year dummies were added into the regression model to capture certain time-specific effects that cannot be captured by firm-level determinants which include the effect of macro indicators, and take a value of 1 for the specific year and 0 otherwise. The reference year 2013 was used to reflect the period in which International Financial Reporting Standards (IFRS) were adopted by companies in Nigeria.

Industry Effect

Corporate finance literature argued the need for industrial classification, in order to detect the impact of an industry effect associated with different regulatory frameworks, growth and risk (Baker et al., 1985 and Moh'd et al., 1995). For this reason the data sample was divided into ten different sectors in Nigeria from 2013 to 2017. Hence, the industry effect is defined in line with the code assigned to each industry by the Nigeria Stock Exchange (NSE). We used the agricultural sector as the base category in the alphabetical ordering of the sectors (see below the summary table for definition of variables listed above).

Table 4.2 Summary Table of Variable Definitions.

Variables	Symbol	Proxy /Measurement	Expected Outcome
Dependent Variable: Dividend Intensity	DIit	Total annual dividend divided by net book value of assets at the end of the year	
Alternative Dividend Payout Ratio	DPRit	Total annual dividend/Total annual profit after tax	
Independent Variables:			
Profitability	ROA	ROA is calculated as profit after tax divided by capital employed of firm *i* at year *t* over the period 2013-2017.	Positive relationship
Firm Size	SZit	Size is measured as the natural logarithm of total assets of company *i* at year *t* over the year	Positive relationship
Growth Opportunities	GRTit	Growth is measured as the ratio of book value per share to market value per share in a given	Negative relationship

		year.	
Debt / Leverage Ratio	DRit	Leverage is defined as yearly total debt divided by yearly total assets of firm *i* at year *t* over the period.	Negative relationship
Liquidity Ratio	CURRit	Current ratio is calculated as yearly total current assets divided by the yearly current liabilities of firm *i* at year *t* over the period.	Positive relationship
Tangibility of Assets	TANGit	Tangibility of assets is calculated as yearly fixed assets divided by yearly total assets of firm *i* at year *t* over the period.	Negative relationship
Time Effect	YEARt	Time effect was captured by assigning value of 1 for the specific year and 0 otherwise. By excluding year 2013 taken as the reference	Positive relationship

		category.	
Industry Effect	INDUSTRYt	Industry dummies were captured by assigning value of 1 for the specific year and 0 otherwise. The reference category is Agriculture.	Positive relationship

Source: Compiled by the Researcher

4.5 Ethical Considerations

This research was carried out in strict conformity with the Robert Gordon University ethical and governance standards. According to Orb et al. (2001), 'research ethics implies doing what is right in the research and refraining from harming the participants'. This study has no ethical issues, as data used is mainly accounts (published financial statements) which is secondary data and readily available for public consumption.

4.6 Conclusion

This chapter presented and discussed the philosophy, methodology and methods underpinning the research. In line with the nature of the study and data collected which is quantitative, it was rational and appropriate to adopt a quantitative methods approach, based on positivist epistemology and objective ontology. Also, the strategy for data collection, the data sample, and research design and models used were outlined and ethical considerations acknowledged.

CHAPTER FIVE

Presentation and Discussion of Findings

5.1 Introduction

This chapter presents and discusses the empirical findings. The empirical results of this research are analysed and interpreted alongside other tests conducted in order to identify the determinants of dividend payouts of non-financial firms listed on the Nigerian Stock Exchange. The chapter is divided into five sections as follows: Section 5.2 presents the descriptive analysis of the study; Section 5.3 discusses the correlation matrix and the variance inflation factor of the variables; Section 5.4 presents the empirical results from the pool regression model; and finally, Section 5.5 concludes the chapter.

5.2 Descriptive Analysis

This section presents the descriptive statistics by sector from the firm-level data manually collected from companies' annual reports and market data obtained from the Nigerian Stock Exchange (NSE). In Chapter Four above, the dividend payout ratio (DPR) and dividend intensity (DI) were identified as proxies for dependent variables in order to examine the determinants of dividend payouts of non-financial firms listed on the Nigerian Stock Exchange. Table 5.1 below presents the results of descriptive statistics by sector and for firms as a whole from the STATA 1C 10.0 output of 74 firms of the sample, with 370 firm year observations over the period of five years from 2013 to 2017.

Table 5.1 Summary of Descriptive Statistics by Sector from the STATA Output

Variable	Mean	Std. Dev.	Min	Max	N
AGRICULTURAL SECTOR					
DPR	0.4057251	0.1553195	0.1254312	0.7692308	20
DI	0.0474430	0.0584739	0.0035907	0.2004437	20
ROA	0.1757702	0.1102070	0.0469180	0.3550633	20
SIZE	7.1222200	0.4820221	6.5098270	7.9926600	20
GRT	0.0427691	0.0208327	0.0102141	0.0820308	20
DR	0.5261866	0.1946143	0.2136090	0.9191729	20
CURR	1.1171830	0.6501403	0.2162681	2.7827270	20
TANG	0.1070451	0.0436089	0.0759649	0.2068694	20
OIL & GAS SECTOR					
DPR	0.4144660	0.2503525	0.0057637	0.9049774	50
DI	0.2177075	0.2741841	0.0011398	0.9570153	50
ROA	0.1149375	0.1511252	0.0008668	0.8054034	50
SIZE	7.3420350	0.8528009	5.3019430	8.3030160	50
GRT	0.2359059	0.2576386	0.0127120	0.9889747	50
DR	0.5521249	0.2611337	0.0229338	0.8711427	50
CURR	1.4538200	0.6567724	0.6422086	3.6460960	50
TANG	0.2509074	0.1727264	0.0144998	0.7046812	50
CONSUMER SECTOR					
DPR	0.3675917	0.2366268	0.0116822	0.8928571	85
DI	0.0386686	0.0393105	0.0010572	0.1563715	85
ROA	0.1394722	0.1087413	0.0078932	0.5024121	85
SIZE	7.6704130	0.8528009	6.2404890	8.7317800	85
GRT	0.4084002	0.2453225	0.0088454	0.9889747	85
DR	0.5624149	0.1583591	0.0875500	0.8764213	85
CURR	1.115728	0.578707	0.2700000	2.8808130	85
TANG	0.2131336	0.1703591	0.0500251	0.6240171	85
CONGLOMERATES SECTOR					

DPR	0.4463600	0.2489957	0.0144578	0.7777778	20
DI	0.1170832	0.1341857	0.0107652	0.4478598	20
ROA	0.0546222	0.0948561	0.0103471	0.4478598	20
SIZE	7.4094900	0.2323234	7.0889850	7.8000480	20
GRT	0.4620900	0.3773528	0.0553251	1.5228430	20
DR	0.4508720	0.1709708	0.1830380	0.7434763	20
CURR	1.4171460	0.4649180	0.6318092	2.1214910	20
TANG	0.1624765	0.1631522	0.0510545	0.4775122	20
SERVICES SECTOR					
DPR	0.2751441	0.2716171	0.0062069	0.9532415	60
DI	0.0564917	0.1042456	0.0022712	0.7131184	60
ROA	0.0938340	0.0752627	0.0046647	0.3259819	60
SIZE	6.6900430	0.5286340	5.7387350	7.8000480	60
GRT	0.4781347	0.3802537	0.0310398	1.9954130	60
DR	0.3974246	0.1662542	0.1045851	0.6712983	60
CURR	1.5369530	1.0087470	0.1862702	4.0054330	60
TANG	0.2144720	0.1699407	0.0540982	0.5928596	60
HEALTH SECTOR					
DPR	0.3734954	0.2798142	0.0150000	0.9756098	35
DI	0.0169522	0.0124279	0.0029433	0.0436674	35
ROA	0.1026479	0.1040387	0.0068419	0.3792053	35
SIZE	7.6389220	1.2852390	6.3424710	9.7843460	35
GRT	0.3311236	0.2582356	0.0652907	1.3626130	35
DR	0.3705172	0.2011195	0.0015460	0.6464701	35
CURR	1.3520220	1.0911180	1.00e-0500	4.6588170	35
TANG	0.2218262	0.1896474	0.0704623	0.6104171	35
ICT SECTOR					
DPR	0.2464602	0.1198595	0.1005263	0.4285714	20
DI	0.0218557	0.0187288	0.0033127	0.0627198	20
ROA	0.1356867	0.1638984	0.0065873	0.5516571	20
SIZE	6.6383770	0.2675502	6.2225430	7.1323510	20

GRT	0.3434042	0.2347694	0.0870189	0.9816628	20
DR	0.3638805	0.0879806	0.2034012	0.5689399	20
CURR	1.5594420	0.5381541	0.3892068	2.3679060	20
TANG	0.5151028	0.2400591	0.0694111	0.7954507	20
NATURAL RESOURCES SECTOR					
DPR	0.1852596	0.0604766	0.0892857	0.2777778	10
DI	0.0063923	0.0020840	0.0036789	0.0098891	10
ROA	0.0771797	0.0353063	0.0299243	0.1287777	10
SIZE	6.4128960	0.1439176	6.2266240	6.6282420	10
GRT	0.5836584	0.2309313	0.2873576	0.9328851	10
DR	0.3725376	0.0473879	0.2933195	0.4369412	10
CURR	1.2738310	0.2679538	0.8686523	1.8761580	10
TANG	0.6690820	0.0997384	0.4913928	0.7694474	10
CONSTRUCTION/REAL ESTATE SECTOR					
DPR	0.3382617	0.3274494	0.0423729	0.8899965	15
DI	0.2134097	0.2922604	0.0033908	0.9700027	15
ROA	0.2324776	0.5574983	0.0035256	2.2373410	15
SIZE	7.2830270	0.6570266	6.3982400	8.2116290	15
GRT	0.6356690	0.9996036	0.1315182	4.1218520	15
DR	0.2576308	0.1837154	0.0410097	0.4869092	15
CURR	1.6190580	1.0339120	0.5344854	3.8137540	15
TANG	0.1624199	0.1347204	0.0623222	0.4921083	15
INDUSTRIAL GOODS SECTOR					
DPR	0.2944700	0.2457444	0.0068976	0.9788567	55
DI	0.0739192	0.1374551	0.0043249	0.6554396	55
ROA	0.1838749	0.1748810	0.0056364	0.7082495	55
SIZE	6.7136940	0.8066529	5.4534480	8.7897010	55
GRT	0.4173823	0.2379774	0.0635160	0.9623307	55
DR	0.3893811	0.1648846	0.0005940	0.8397808	55
CURR	1.2035320	0.7960778	0.1329550	3.2381590	55
TANG	0.2893290	0.1973055	0.0305464	0.7043981	55

OVERALL SAMPLE					
DPR	0.3422780	0.2494796	0.0057637	0.9788567	370
DI	0.0789549	0.1543807	0.0010572	0.9700027	370
ROA	0.1311308	0.1675998	0.0008668	2.2373410	370
SIZE	7.1726510	0.8369872	5.3019430	9.7843460	370
GRT	0.3839990	0.3533219	0.0088454	4.1218520	370
DR	0.4541883	0.2009096	0.0005940	0.9191729	370
CURR	1.3301610	0.7874146	1.00e-05	4.6588170	370
TANG	0.2487207	0.2019657	0.0144998	0.7954507	370

Compiled by the Researcher

From the summary table above, dividend intensity which is the main proxy for dividend payouts has a mean average of 7% approximately, indicating that on average, sampled firms pay annual cash dividends equivalent to 7% of their total asset value. However, when sectoral comparisons were made on the basis of the main proxy (dividend intensity), we found that both oil and gas and construction and real estate sectors paid an average mean of 21% of their respective total asset value as cash dividends to shareholders, more than any other sector, whereas the health and natural resources sectors distribute an average of 2% and 1% respectively of total assets as cash dividends which was the lowest across all the sectors. The average mean dividend payout ratio (alternative proxy) for all non-financial sampled firms in Nigeria was approximately 34%, indicating that on average, 74 sampled firms paid 34% of their net profit as dividends to ordinary shareholders while the remaining observations (i.e. 66%) did not pay dividends over the five year period covered.

The return on assets (ROA) has a mean of 13%, indicating that 74 sampled firms on average earn net profit equal to 13% of their total asset value over the five year period considered. The leverage ratio has a mean of 45%, revealing that sampled firms on average have total debt equivalent to 45% of their total asset value. Also,

the average growth opportunities for the period are 38%, which indicates that on average the market value of the 74 sampled firms' shares is only around 38% of their asset value, signifying poor growth. This may be due to the economic recession experienced in Nigeria between years 2016 to 2017. Finally, liquidity (current ratio) has a mean average of 1.33, suggesting that most sampled firms in Nigeria are liquid and meet maturity obligations as and when due, while tangibility has a mean of 0.25, which reveals that about 25% of sampled firms' assets are fixed.

When compared with other similar studies in Nigeria, the results are not significantly different. For example, Edet et al. (2014) reported a mean dividend payout ratio of 31% with a sample of 13 firms, while Zayol et al. (2017) reported a mean dividend payout ratio of 62.24%, suggesting that most Nigerian firms retain a greater portion of their earnings for financing growth opportunities. Also, the results of Zayol et al. (2017) reveal that most firms in Nigeria earn on average 16% on their total assets and maintain a liquidity ratio of 1.22 over the period covered, which is similar to the current results. Looking at those studies, the results of Edet et al. (2014) differ from those of the current research, but are to some extent consistent with Zayol et al. (2014) despite having been conducted at different times with fewer selected firms, which may have impacted on their results. Other results can be seen in the summary table above.

5.3 Correlation Analysis

Table 5.2 presents the correlation matrix and the Variance Inflation Factors (VIF) of the dependent variables.

Table 5.2 Correlation Matrix and Variance Inflation Factor for Explanatory Variables of All the Firms

Variables	ROA	SIZE	GRT	DR	CURR	TANG	VIF	1/VIF
ROA	1.0000						1.39	0.720505
SIZE	-0.1057 0.0422**	1.0000					1.47	0.682517
GRT	0.3979 0.0000***	-0.1020 0.0498**	1.0000				1.46	0.686122
DR	0.0742 0.1542	0.1740 0.0008***	-0.1298 0.0124**	1.0000			1.49	0.672142
CURR	-0.0863 0.0975*	-0.1063 0.0409**	0.0390 0.4540	-0.3122 0.0000***	1.0000		1.23	0.810980
TANG	0.0265 0.6114	-0.2979 0.0000***	0.0481 0.3564	0.0368 0.4807	0.1700 0.0010***	1.0000	1.59	0.627576
Note: Values in (*), (**), and (***) are significant at 10%, 5% and 1%								

Compiled by the Researcher

From the summary correlation matrix above, it can be seen that most of the variables are not highly correlated. Therefore, a variance inflation factor (VIF) was used for further analysis to identify any multicollinearity between the independent variables. As a conventional rule, if VIF values of each independent variable exceed ten or the tolerance (1/VIF) is smaller than 0.10, it signals the presence of multicollinearity in the variable. Therefore, as shown in the summary table above, no multicollinearity exists in the dataset, since all the independent variables have both VIF and 1/VIF below the thresholds of 10 and 0.10 respectively. The next section discusses the empirical results conducted based on a pooled OLS estimator.

5.4 Empirical Results

The empirical results from winsorised data using pooled OLS with time and industry dummies are presented in Table 5.3 below. In order to control for time and industry classification effects on the determinants of dividend payout of non-financial firms in Nigeria, four binary variables (e.g., 1 for specific year and 0 for otherwise) and another nine binary variables were also added to the models to account for both year and industry classification effects, while I winsorised the data in further analysis to authenticate/support the primary findings. Consequently, pooled OLS was repeated based on the winsorised panel dataset at 1% and 99% to check for any potential outliers, as empirical evidence from the literature suggests that 'trimming or truncating' may lead to loss of important observations (e.g. Dixon, 1960). Industry fixed effects were also performed, but the results were not significant due to limited observations (370 and 70 dummies) included over the period which shrank the degree of freedom. The results from both winsorised and unwinsorised data are similar in terms of the signs of the coefficients and statistical significance. However, the models are better fitted with the winsorised data (illustrated by adj-R squared). Therefore, the F-test of overall significance of winsorised model 1 and 2 are 0.34 and 0.10 respectively, which shows that about 34% (10%) of the variation in the dividend payout of non-financial firms in Nigeria is explained by all the explanatory variables in the model, while 66% (90%) is not explained by the models. The results for Model 1 and Model 2 are presented below.

Table 5.3 Pooled OLS Results with Winsorised Datasets at 1%, 99%

Dependent Variable	**Model 1** **Dividend Intensity (DI)**				**Model 2** **Dividend Payout Ratio (DPR)**			
Explanatory Variables	**Coefficient of Beta**	**Std. Err.**	**t**	**P-value**	**Coefficient of Beta**	**Std. Err.**	**t**	**P-value**
Profitability (ROA)	0.140	0.072	1.94	0.053*	0.012	0.133	0.09	0.927
Firm Size (SZ)	-0.022	0.011	-1.99	0.047**	-0.005	0.020	-0.24	0.811
Growth Opportunities(GRT)	0.081	0.028	2.86	0.005***	0.058	0.052	1.12	0.264
Debt Ratio (DR)	-0.219	0.046	-4.69	0.000***	-0.217	0.086	2.52	0.012**
Liquidity Ratio(CURR)	0.008	0.011	0.60	0.547	0.018	0.020	0.89	0.372
Tangibility of Assets(TANG)	-0.101	0.047	-2.16	0.031**	-0.157	0.086	-1.83	0.068*

Time Effect (YEAR):								
2014	-0.006	0.023	-0.26	0.794	-0.035	0.043	-0.83	0.409
2015	-0.028	0.023	-1.23	0.218	-0.015	0.042	-0.36	0.720
2016	-0.027	0.023	-1.17	0.243	-0.069	0.042	-1.63	0.104
2017	-0.007	0.023	-0.31	0.756	0.022	0.043	-0.51	0.608
Industry Effect (Industry)								
Oil and Gas	0.217	0.038	5.65	0.000***	0.017	0.067	0.25	0.800
Consumer	-0.000	0.036	-0.01	0.990	-0.037	0.064	-0.57	0.568
Conglomerates	0.052	0.045	1.17	0.244	0.049	0.081	0.55	0.581
Services	-0.038	0.038	-0.98	0.330	-0.109	0.068	-1.60	0.111
Health	-0.050	0.041	-1.21	0.228	0.005	0.072	0.07	0.941
ICT	-0.055	0.048	-1.13	0.259	-0.079	0.085	-0.92	0.358

Natural Resources	-0.062	0.061	-1.02	0.306	-0.130	0.109	-1.20	0.233
Construction/ Real Estate	0.109	0.051	2.14	0.033**	-0.013	0.089	-0.14	0.887
Industrial goods	-0.027	0.038	-0.70	0.483	-0.066	0.068	-0.97	0.331
Constant	0.307	0.093	3.30	0.001	0.333	0.171	1.94	0.053
Descriptive Statistics								
F-Test of Overall Significance (19, 310)	8.55				F-Test of Overall Significance (19, 310)	1.84		
Prob>F	0.000				Prob>F	0.019		
R-Squared	0.344				R-	0.101		

Adj R-squared Root MSE	0.304 0.130	Squared Adj R-squared Root MSE	0.046 0.243
No. of Observations	330	330	
No. of groups	74	74	
Note: Values in (*), (**), and (***) are significant at 10%, 5% and 1%			

Compiled by the Researcher

From Table 5.3 above, Model 1 and Model 2 are statistically significant with F-test ratios of 0.000 and 0.019 respectively. However, Model 1 is better fitted than Model 2 as shown in the table. Hence we report our findings.

Profitability (ROA)

The results from both Model 1 and Model 2 indicate that profitability is positively correlated to the dividend payout. However, only the result from Model 1 is statistically significant at 10% level. From the summary table above, the coefficient of beta is 0.14, which means that when all other variables in Model 1 are held constant, a 1% increase in ROA will bring about a 14% increase in the dividend payout of non-financial firms in Nigeria. In addition, the economic significance of both regressions is moderate. The results provide some support to the notion that dividends are paid out from current or past profits; that is, firms that make more profit may be inclined to pay out higher cash dividends to shareholders. These results are consistent with empirical studies in developed countries (e.g., Jensen et al., 1992; DeAngelo et al., 1992; Fama and French, 2000) and developing countries (Adaoglu, 2000; Aivazian et al., 2003; Al-Malkawi, 2005) that found a positive correlation between higher dividend payout ratios and profitability. Therefore, this supports the signalling theory of dividends (Bhattacharya, 1979; Miller and Rock, 1985; John and Williams, 1985) and is also consistent with similar studies in Nigeria (Zayol and Muolozie, 2017; Uwuigbe, 2013).

Size

The results from both Model 1 and Model 2 show that firm size is negatively correlated to dividend payouts, although only the result from Model 1 is statistically significant at 5% level. Also, the economic significance of both regression coefficients is low. For example, the coefficient of beta is -0.02, which implies that holding other variables constant, a ₦1 decrease in size, will bring about a corresponding decrease in dividend payouts of non-financial firms in Nigeria by 2%. The results provide some support to the notion that firm size might be a proxy for the degree of information asymmetry. Larger firms tend to have lower degrees of information asymmetry than smaller firms and they do not need to use high dividend pay outs to signal their quality. However, the results do not support the

notion that larger firms pay more dividends because they have better access to external financing and therefore do not need to retain a high proportion of their earnings for future investment. Therefore, my results are similar to those found by Manos (2002), Travlos et al. (2002) and Al-Malkawi (2005), although Aivazian et al. (2003) found little evidence that firm size affects dividend payout policy.

Growth Opportunities

The results from Model 1 and Model 2 found growth opportunities to be positively correlated with dividend payouts. However, only the result from Model 1 is significant at 1% level. Thus, the beta coefficient of Model 1 is 0.08, which indicates that when all other variables are held constant, a 1% increase in growth will bring about an 8% increase in the dividend payout of non-financial firms in Nigeria. The results from this study are inconsistent with empirical evidence from literature which suggests that growth potential and dividend payments are inversely related, because growing firms need cash for investment and so pay low or even no dividends (Gaver and Kenneth, 1993; Faccio et al., 2001; Baker and Powell, 2012). Smith and Watts (1992) also found a negative correlation between dividend payout ratios and growth opportunities. They suggest that high dividend payout ratios are negatively correlated to growth opportunities because, they reduce the cash available for future earnings growth from the company. Therefore, they do not support the transaction costs theory (Rozeff, 1982; Moh'd et al., 1995). The inconsistency in results may be due to Nigeria's unique environment, dominated by small and medium sized firms who may use high dividend payouts to encourage people to invest in them.

Debt Ratio

The debt ratio hypothesis (4) predicted a negative relationship between the debt ratio and dividend payout. Our results from Models 1 and 2 are both statistically significant at 1% and 5% levels. From the regression results, the beta coefficients are -0.219 and -0.217 respectively, which suggests that when all other variables are maintained constant, a ₦1 increase in the use of debt, will decrease the dividend payout of non-financial firms in Nigeria by approximately 22%. The findings indicate a significant negative correlation between the debt ratio and

dividend policy and are therefore consistent with the literature that argues that agency costs associated with free cash flow problems may be mitigated through issuing debt or paying cash dividends to shareholders (Jensen and Meckling, 1979; Jensen, 1986; Crutchley and Hansen, 1989). It was argued further that debt and dividends may serve as alternative measures in controlling agency problems and therefore the two are inversely correlated. Rozeff (1982) suggested that the dividend payout ratio and debt are inversely correlated, arguing that high fixed interest obligations arising from the use of debt financing reduce profit after tax, and consequently, reduce the dividend payout ratio. The result is also consistent with similar studies in Nigeria by Dada and Malomo (2015), Zayol and Muolozie (2017) Uwuigbe (2013) that found a negative correlation between dividend payouts and leverage.

Liquidity (Current Ratio)

Liquidity was predicted to have a positive relationship to dividend payouts. Our findings reveal that the liquidity proxy to current ratio and dividend payout ratio are positively correlated with a beta coefficient of 0.008, though not significant. Empirical evidence from the literature argued that dividend payouts are positively correlated with higher liquidity. This is because firms that are liquid are better placed to pay cash dividends as no external borrowing is required which might increase interest payments compared to illiquid firms (Manos, 2002; Ho, 2003). Similarly, Gupta and Parua (2012) argued that higher liquidity shows that the firm is sound and capable of meeting its financial obligations. However, a few studies have documented a negative relationship between liquidity and dividend payout ratio, and suggest that liquidity has no informational effect on the dividend payout ratio (Mehta, 2012; Al-Najjar, 2009). My results share the view of previous studies that liquidity has no significant effect on dividend payouts in developing countries (Al-Najjar, 2009; Mehta, 2012; Kisman, 2013).

Asset Tangibility

Asset tangibility was predicted to have a negative correlation with the dividend payout ratio. My results from both Model 1 and Model 2 as shown in Table 5.3 are negative and significant at both 5% and 10% levels respectively. For example, the

beta coefficients of -0.101 and -0.157 show that, when all other variables in the models are held constant, a ₦1 increase in fixed assets compared to other assets, would bring about 10% and 16% decreases respectively in the dividend payout of non-financial firms in Nigeria. Thus, the result is consistent with the empirical findings from literature that argued that managers can use non-current assets (fixed assets) to raise additional debt, in order to increase monitoring by the debt holders (Jensen and Meckling, 1986; Rajan and Zingales, 1995; Booth et al., 2001). Also, Aivazian, Booth, and Clearly (2003) suggest that firms with more tangible assets in relation to total assets will have lower dividend payouts compared to firms with fewer tangible assets in a market where short-term debt is the major source of funding, which is consistent with the agency cost theory.

Industry Effect

The results from Model 1 indicate that both oil and gas and construction/real estate industries are positive and significant at 1% and 5% respectively. The results to an extent support the notion that there is a need for industrial classification in order to detect the impact of the industry effect associated with different regulatory frameworks, growth and risk (Baker et al., 1985; Moh'd et al., 1995). However, the positive and significant results may be due to the ongoing growth in both sectors. For example, the oil and gas sector contributes over 90% of Nigeria's foreign exchange earnings and is expected to have high payouts in order to compensate investors for volatile stock prices. Meanwhile real estate also pays high dividends because most of its investors are institutions who wish to earn a return on their investment, or huge assets and leverage ratio (National Bureau of Statistics, 2016; International Monetary Fund, 2014). Overall, the industry effect does not significantly change the coefficients of the variables in the models.

5.5 Conclusion

This chapter summarises the key findings from the regression analysis. The explanatory variables used are ROA, size, debt ratio, growth opportunities, current ratio and asset tangibility. The empirical findings reveal a positive correlation between dividend payout and firm profitability, consistent with signalling theory,

which argues that profitable firms pay larger dividends to signal current and future prospects. A positive correlation was also found between dividend payout and size, supporting agency cost theory that size may act as a proxy for access to external capital markets. Larger firms face fewer constraints in accessing external funds from the capital markets and lower costs than smaller firms, and so can afford to pay higher cash dividends (Gaver and Gaver, 1993). Similarly, a positive correlation was found between growth opportunities and dividend payout, which is therefore inconsistent with empirical findings in the literature which argues that a growing firm needs cash for investment, such that growth opportunities may force them to pay a low or even no dividend (Gaver and Kenneth, 1993; Faccio et al., 2001; Baker and Powell, 2012). Furthermore, a negative correlation was found between the debt ratio and dividend payouts, thus supporting the agency costs theory. Liquidity and dividend payouts were also positively correlated, although not significant. This is consistent with signalling theory and with empirical findings in the literature (Manos, 2002; Ho, 2003; Gupta and Parua, 2012). A negative correlation was found between dividend payouts and asset tangibility, again giving support to the agency costs theory and consistent with empirical findings elsewhere (Booth et al., 2001; Aivazian et al., 2003). Finally, analysis of the impacts of time and industry dummies on the dividend payouts of Nigerian non-financial firms shows that time and industry classification effects do not have a significant influence in Nigeria.

CHAPTER SIX

Conclusion

6.1 Introduction

This chapter comprises the following: Section 6.2 summarises the main findings of this study; Section 6.3 discusses the implications of these findings, and finally, Section 6.4 explains the limitations of this study and proposes directions for further studies.

6.2 Summary of Findings

The results from Chapter 5 above show that all the variables except growth opportunities were significant and consistent with both theoretical predictions (e.g., agency cost theory, transaction cost theory, and signalling theory) and empirical findings (Gaver and Kenneth, 1993; Faccio et al., 2001; Aivazian et al., 2003; Baker and Powell, 2012). The findings are summarised below in the context of previous theories and empirical findings, and on this basis we evaluate the implications of each of the dividend determinants for the hypotheses formulated.

Hypothesis 1 predicted that dividend payout would be positively correlated with a firm's profitability. From the results of the pooled OLS regression presented in the summary tables in Section 5.3, it shows that profitability is positively correlated to the dividend payout. Therefore, the result is consistent with empirical findings in the developed countries (e.g. Jensen et al., 1992; DeAngelo et al., 1992; Fama and French, 2000) that found a positive correlation between higher dividend payouts and profitability. Recent empirical studies in the developed countries also found dividend payout and profitability to be positively correlated (Adaoglu, 2000; Aivazian et al., 2003; Al-Malkawi, 2005).

- Firm size was found to be a positive and to an extent significant influence, based on the pooled OLS results summarised in Section 5.3. The result is consistent with some empirical findings that size may act as a proxy for access to external capital markets. Larger firms face fewer constraints in

accessing external funds from the capital markets, often at lower costs than smaller firms, and can afford to pay higher cash dividends (Gaver and Gaver, 1993). Other studies have also found a positive correlation between dividend payout and size (Manos, 2002; Travlos et al., 2002; Al-Malkawi, 2005). Although Aivazian et al (2003) found a little evidence to justify the impact of size on dividend payout, overall hypothesis 2, that there is a positive relationship between firm size and dividend payout, is accepted.

Growth opportunities were found to be positively correlated to dividend payouts, contrary to empirical evidence from literature documenting a negative correlation between dividend payout and growth opportunities. The results from this study are therefore inconsistent with empirical evidence from elsewhere that growth potential and dividend payments are inversely related because a growing firm needs cash for investment and therefore can only pay low or no dividend (Gaver and Kenneth, 1993; Faccio et al., 2001; Baker and Powell, 2012). Smith and Watts (1992) likewise found a negative correlation between dividend payout ratios and growth opportunities. Therefore, we can reject the hypothesis 3.

The debt ratio hypothesis (4) predicted a negative relationship between the debt ratio and the dividend payout. Our results confirmed this and were therefore consistent with the literature that argues that agency costs associated with free cash flow problems may be mitigated through issuing debt or paying cash dividends to shareholders (Jensen and Meckling, 1979; Jensen, 1986; Crutchley and Hansen, 1989). Therefore, the hypothesis as formulated is upheld.

Liquidity was predicted to have a positive relationship to dividend payout. Our findings revealed that the liquidity proxy to current ratio and dividend payout was positively correlated, though of limited significance in the models. It has been argued that higher dividend payouts are positively correlated with higher liquidity because firms that are liquid are better placed to pay cash dividends, as no external borrowing (with its associated interest payments) is required, compared to illiquid firms (Manos, 2002; Ho, 2003). Therefore, we cannot reject the hypothesis formulated.

Asset tangibility was predicted to have a negative correlation to dividend payout. Our results are consistent with those in the literature, arguing that managers can use non-current assets (fixed assets) to raise additional debt in order to increase monitoring by the debt holders (Jensen and Meckling, 1986; Rajan and Zingales, 1995; Booth et al., 2001). Aivazian, Booth, and Clearly (2003) also suggest that firms with more tangible assets in relation to total assets have lower dividend payouts compared to firms with fewer tangible assets, in a market where short-term debt is the major source of funding. Therefore, we cannot reject the hypothesis.

Table 6.1 Summary of Empirical Findings and Theoretical Predictions from Literature

Variables	**Theory**	**Theory Prediction**	**Empirical Findings**
Profitability (ROA)	Signalling Theory	Positive	Consistent
Size	Agency Cost Theory	Positive	Consistent
Growth Opportunities	Transaction Cost Theory	Negative	Inconsistent
Debt	Agency Cost Theory	Negative	Consistent
Liquidity	Signalling Theory	Positive	Consistent
Tangibility	Agency Cost Theory	Negative	Consistent

Compiled by the Researcher

6.3 Conclusion

The aim of this research thesis was to examine the determinants of dividend policy of non-financial firms listed on the Nigerian Stock Exchange. The study began by reviewing existing literature in order to understand the subject-matter and with

view to selecting an appropriate research design. Major dividend policy theories and empirical studies were selected and reviewed, and on this basis hypotheses were formulated. Thereafter, accounting data of 74 non-financial firms in Nigeria were collected manually from official corporate websites. The data collected was analysed using pooled OLS models. The empirical findings revealed that profitability, size, growth opportunities and liquidity were positively correlated with dividend payout, while a negative relationship was found with the debt ratio and asset tangibility. The time effect did not appear to matter, while industry effects show some influence on dividend policy over the period considered. We examined whether there was any variation in dividend payout among ten different sectors in Nigeria, and the results suggest that, consistent with the literature, the dividend policy was not different, although statistics by sector indicate that oil and gas and consumer sectors have a higher payout compared to other sectors, due to their major contributions to the Nigerian economy. Therefore, the study concludes that the determinants of dividend payouts in Nigeria are similar to those found in both developed countries and developing countries (e.g. Fama and French, 2001; Aivazian et al., 2003; Baker and Powell. 2012).

6.4 Contribution and Policy Implications

This research has contributed not only to academic research but also to practice. Firstly, our empirical findings provide a further basis for comparison as previous research in other developing countries suggests that the institutional environment in the emerging markets differs from their developed counterparts, which may influence dividend policy (Glen et al., 1995; Aivazian et al., 2003; Gugler, 2003). The findings from this study proves otherwise, as they are not totally different from those of their developed counterparts.

Secondly, this study contributes to the limited knowledge of the determinants of dividend policy in the non-financial sector. Evidence from the literature suggests that there is a variation in dividend policy across sectors, but our results found little evidence to support it.

Thirdly, the outcome of this study could help the Nigerian Securities Exchange Commission (SEC) in formulating laws to help regulate the dividend policy of Nigerian firms by ensuring that any listed firm maintains a stable dividend policy and increases (or cuts) dividends when necessary in order to protect investors.

Finally, the findings of this study may assist firms in understanding the dynamics of the Nigerian market, and especially the institutional environment with a view to making more informed decisions about the determinants of corporate dividend policies.

6.5 Limitations and Further Study

This study was carried out in order to provide a basis for future studies on the determinants of the dividend payouts of non-financial firms in developing countries such as Nigeria. As with any research, this current thesis has some limitations which could be improved in future studies. First, this study was conducted only on non-financial firms listed on the Nigerian Stock Exchange, excluding all financial firms due to their particular regulations and different dividend payout policies. This limitation could be addressed in future research by including both financial and non-financial firms in order to yield comparisons of the determinants of their dividend payouts.

Secondly, the lack of an official national depository for annual reports meant that the researcher had to rely on the manual collection of accounting data, thereby reducing the sample size and subsequently weakening the explanatory power of the models.

Thirdly, due to limitations of time and data, only six firm-level independent variables are included in the regression models. More recent studies (e.g. Ucer, 2016; Booth and Zhou, 2017) suggest that apart from firm-level attributes, macroeconomic variables like inflation, exchange rates and unemployment rates may also affect firms' dividend policy; and if data becomes available in future, we may examine the impact of these factors on dividend payouts.

Finally, another limitation of this study is that it only used pooled OLS. For example, observations were pooled together, thereby hiding the individuality that exists while fixed and random effects models control for all time-invariant differences between the individuals which makes the estimated coefficient unbiased compared to pooled OLS. Therefore, future studies may use these methods together with OLS methods to see whether there are significant differences in the results.

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Appendices

Appendix 1: Nigerian listed Firms as at 2019

S/N	Name	Sector
1	ELLAH LAKES PLC	Agriculture
2	FTN COCOA	Agriculture
3	LIVESTOCK FEEDS PLC.	Agriculture
4	OKOMU OIL PALM	Agriculture
5	PRESCO PLC	Agriculture
6	A.G. LEVENTIS NIGERIA PLC	Conglomerate
7	CHELLARAMS PLC.	Conglomerate
8	JOHN HOLT PLC	Conglomerate
9	S C O A NIG. PLC.	Conglomerate
10	TRANSNATIONAL CORPORATION OF NIGERIA PLC	Conglomerate
11	U A C N PLC	Conglomerate
12	ARBICO PLC	Construction/Real Estate
13	JULIUS BERGER NIG. PLC	Construction/Real Estate
14	ROADS NIG PLC	Construction/Real Estate
15	SKYE SHELTER FUND PLC	Construction/Real Estate
16	SMART PRODUCTS NIGERIA PLC	Construction/Real Estate
17	UACN PROPERTY DEVELOPMENT COMPANY PLC	Construction/Real Estate
18	UNION HOMES REAL ESTATE INVESTMENT TRUST (REIT)	Construction/Real Estate
19	UPDC REAL ESTATE INVESTMENT TRUST	Construction/Real Estate
20	CADBURY NIGERIA PLC	Consumer goods
21	CHAMPION BREW. PLC.	Consumer goods
22	DANGOTE SUGAR REFINERY PLC	Consumer goods

23	DN TYRE & RUBBER PLC	Consumer goods Consumer goods
24	FLOUR MILLS NIG. PLC	Consumer goods
25	GOLDEN GUINEA BREW. PLC	Consumer goods
26	GUINNESS NIG PLC	Consumer goods
27	HONEYWELL FLOUR MILL PLC	Consumer goods
28	INTERNATIONAL BREWERIES PLC	Consumer goods
29	MCNICHOLS PLC	Consumer goods
30	MULTI-TREX INTEGRATED FOODS PLC	Consumer goods
31	N NIG. FLOUR MILLS PLC.	Consumer goods
32	NASCON ALLIED INDUSTRIES PLC	Consumer goods
33	NESTLE NIGERIA PLC.	Consumer goods
34	NIGERIAN BREW. PLC.	Consumer goods
35	NIGERIAN ENAMELWARE PLC	Consumer goods
36	P Z CUSSONS NIGERIA PLC.	Consumer goods
37	UNILEVER NIGERIA PLC.	Consumer goods

38	UNION DICON SALT PLC.	Consumer goods
39	VITAFOAM NIG PLC.	Consumer goods
40	ABBEY MORTGAGE BANK PLC	Financial services
41	ACCESS BANK PLC.	Financial services
42	AFRICA PRUDENTIAL PLC	Financial services
43	AFRICAN ALLIANCE INSURANCE PLC	Financial services
44	AIICO INSURANCE PLC	Financial services
45	ASO SAVINGS AND LOANS PLC	Financial services
46	AXAMANSARD INSURANCE PLC	Financial services
47	CONSOLIDATED HALLMARK INSURANCE PLC	Financial services
48	CONTINENTAL RESURANCE PLC	Financial services
49	CORNERSTONE INSURANCE PLC	Financial services
50	CUSTODIAN INVESTMENT PLC	Financial services
51	DEAP CAPITAL MANAGEMENT & TRUST PLC	Financial services
52	ECOBANK TRANSNATIONAL INCORPORATEDET	Financial services
53	FBN HOLDINGS PLC	Financial services
54	FCMB GROUP PLC	Financial services
55	FIDELITY BANK PLC	Financial services

56	GOLDLINK INSURANCE PLC	Financial services
57	GUARANTY TRUST BANK PLC.	Financial services
58	GUINEA INSURANCE PLC.	Financial services
59	INFINITY TRUST MORTGAGE BANK PLC	Financial services
60	INTERNATIONAL ENERGY INSURANCE PLC	Financial services
61	JAIZ BANK PLC	Financial services
62	LASACO ASSURANCE PLC.	Financial services
63	LAW UNION AND ROCK INS. PLC	Financial services
64	LINKAGE ASSURANCE PLC	Financial services
65	MUTUAL BENEFITS ASSURANCE PLC	Financial services
66	NEM INSURANCE PLC	Financial services
67	NIGER INSURANCE PLC	Financial services
68	NIGERIA ENERYGY SECTOR FUND	Financial services
69	NPF MICROFINANCE BANK PLC	Financial services
70	OMOLUABI MORTGAGE BANK PLC	Financial services
71	PRESTIGE ASSURANCE PLC	Financial services
72	REGENCY ASSURANCE PLC	Financial services
73	RESORT SAVINGS & LOANS PLC	Financial services
74	ROYAL EXCHANGE PLC	Financial services
75	SOVEREIGN TRUST INSURANCE PLC	Financial services
76	STACO INSURANCE PLC	Financial services
77	STANBIC IBTC HOLDINGS PLC	Financial services
78	STANDARD ALLIANCE INSURANCE PLC	Financial services
79	STERLING BANK PLC	Financial services
80	SUNU ASSURANCES NIGERIA PLC	Financial services
81	UNIC DIVERSIFIED HOLDINGS PLC	Financial services
82	UNION BANK NIG.PLC.	Financial services
83	UNION HOMES SAVINGS AND LOANS PLC	Financial services
84	UNITED BANK FOR AFRICA PLC	Financial services
85	UNITED CAPITAL PLC	Financial services
86	UNITY BANK PLC	Financial services

87	UNIVERSAL INSURANCE PLC	Financial services
88	VALUEALLIANCE VALUE FUND	Financial services
89	VERITAS KAPITAL ASSURANCE PLC	Financial services
90	WAPIC INSURANCE PLC	Financial services
91	WEMA BANK PLC.	Financial services
92	ZENITH BANK PLC	Financial services
93	EKOCORP PLC	Healthcare
94	EVANS MEDICAL PLC.	Healthcare
95	FIDSON HEALTHCARE PLC	Healthcare
96	GLAXO SMITHKLINE CONSUMER NIG. PLC.	Healthcare
97	MAY & BAKER NIGERIA PLC	Healthcare
98	MORISON INDUSTRIES PLC	Healthcare
99	NEIMETH INTERNATIONAL PHARMACEUTICALS PLC	Healthcare
100	NIGERIA-GERMAN CHEMICALS PLC	Healthcare
101	PHARMA-DEKO PLC	Healthcare
102	UNION DIAGNOSTIC & CLINICAL SERVICES PLC	Healthcare
103	AIRTEL AFRICA PLC	ICT
104	CHAMS PLC	ICT
105	COURTEVILLE BUSINESS SOLUTIONS PLC	ICT
106	CWG PLC	ICT
107	E-TRANZACT INTERNATIONAL PLC	ICT
108	MTN NIGERIA COMMUNICATIONS PLC	ICT
109	NCR (NIGERIA) PLC	ICT
110	OMATEK VENTURES PLC	ICT
111	TRIPPLE GEE AND COMPANY PLC	ICT
112	AUSTIN LAZ & COMPANY PLC	Industrial goods
113	BERGER PAINTS PLC	Industrial goods
114	BETA GLASS PLC	Industrial goods
115	CAP PLC	Industrial goods

116	CEMENT CO. OF NORTH.NIG. PLC	Industrial goods
117	CUTIX PLC.	Industrial goods
118	DANGOTE CEMENT PLC	Industrial goods
119	GREIF NIGERIA PLC	Industrial goods
120	LAFARGE AFRICA PLC.	Industrial goods
121	MEYER PLC	Industrial goods
122	NOTORE CHEMICAL IND PLC	Industrial goods
123	PORTLAND PAINTS & PRODUCTS NIGERIA PLC[	Industrial goods
124	PREMIER PAINTS PLC.	Industrial goods
125	ALUMINIUM EXTRUSION IND. PLC	Natural Resources
126	B.O.C. GASES PLC.	Natural Resources
127	MULTIVERSE MINING AND EXPLORATION PLC	Natural Resources
128	THOMAS WYATT NIG. PLC	Natural Resources
129	MOBIL OIL AND GAS	Oil and Gas
130	ANINO INTERNATIONAL PLC	Oil and Gas
131	CAPITAL OIL PLC	Oil and Gas
132	CONOIL PLC	Oil and Gas
133	ETERNA PLC.	Oil and Gas
134	FORTE OIL PLC.	Oil and Gas
135	JAPAUL OIL & MARITIME SERVICES PLC	Oil and Gas
136	MRS OIL NIGERIA PLC	Oil and Gas
137	OANDO PLC	Oil and Gas
138	RAK UNITY PET. COMP. PLC	Oil and Gas
139	SEPLAT PETROLEUM DEVELOPMENT COMPANY PLC	Oil and Gas
140	TOTAL NIGERIA PLC.	Oil and Gas
141	ACADEMY PRESS PLC.	Services
142	AFROMEDIA PLC	Services

143	ASSOCIATED BUS COMPANY PLC	Services
144	C & I LEASING PLC.	Services
145	CAPITAL HOTEL PLC[BLS]	Services
146	CAVERTON OFFSHORE SUPPORT GRP PLC[BLS	Services
147	DAAR COMMUNICATIONS PLC	Services
148	GLOBAL SPECTRUM ENERGY SERVICES PLC	Services
149	IKEJA HOTEL PLC	Services
150	INTERLINKED TECHNOLOGIES PLC	Services
151	JULI PLC.[MRF]	Services
152	LEARN AFRICA PLC	Services
153	MEDVIEW AIRLINE PLC[BLS]	Services
154	NIGERIAN AVIATION HANDLING COMPANY PLC	Services
155	R T BRISCOE PLC.	Services
156	RED STAR	Services
157	EXPRESS PLC	Services
158	SECURE ELECTRONIC TECHNOLOGY PLC	Services
159	SKYWAY AVIATION HANDLING COMPANY PLC	Services
160	STUDIO PRESS (NIG) PLC.	Services
161	TANTALIZERS PLC	Services
162	THE INITIATES PLC	Services
163	TOURIST COMPANY OF NIGERIA PLC.[DIP]	Services
164	TRANS-NATIONWIDE EXPRESS PLC	Services
165	TRANSCORP HOTELS PLC.	Services
166	UNIVERSITY PRESS PLC.	Services

Appendix 2 Consent for Data from the Nigerian Stock Exchange

Dr Tong Jiao
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[Re: Mr. EMEKA ALAETO]

Dear ,

I am writing this letter to confirm that Mr. EMEKA ALAETO is a full-time PhD student currently under my supervision. His research focuses on the dividend decisions of companies listed on the Nigerian Stock Exchange and requires access to the accounting and market data of these companies. He has already identified the specific data needs to be purchased from your organization. Once purchased, these data will be used strictly for the above-mentioned research purpose. In addition, Mr. ALAETO will take necessary measures to protect the confidentiality of these data.

Yours sincerely,

Tong Jiao

Appendix 3 Summary of empirical literature

AUTHOR	MAIN POINT	DATA	MODEL	FINDINGS/CONCLUSIONS
Determinants of dividend studies across the emerging markets				
Singhania and Gupta (2012)	Determinants of Corporate dividend Policy: A Tobit Model Approach	Panel data of 50 National Stock Exchange companies between 1999–2000 and 2009–2010	Tobit regression model.	The results show that firm's size proxy to market capitalization is positively correlated to firm's growth and investment opportunity. While a negative correlation was found on firm's debt structure, profitability and experience.
Alzomaia and Al-Khadhiri (2013)	Determination of Dividend Policy: The Evidence from Saudi Arabia	Panel data of 105 non-financial firms listed on Saudi Arabia stock exchanges (TASI) from year 2004 to 2010.	Panel Regression Analysis Technique	The findings indicate a positive correlation between dividend per share and earnings per share, while a negative correlation was found between DPS and growth.
Hafeez Ahmed & Attiya Y. Javid (2009)	Determinants of dividend payout policy of non-financial firms	Secondary data from the annual reports of 320 non-financial	Ordinary Least Square regression Technique	They found a positive correlation between dividend payout ratio and earnings, liquidity and free cash flows. While negative correlation was found between size anf

	listed in Karachi Stock Exchange	firms for the period of 2001 to 2006		growth.
Baah et al. (2014)	Determinants of dividend policy of 12 companies listed on the Ghanaian stock market.	Secondary data from 2006–2011.	Multiple regression analysis technique	The findings reveal that dividend payout ratio was positively correlated to ROE and size while EPS, growth and liquidity was negatively correlated to dividend payout ratio.
Santhi Appannan and Lee Wei Sim (2011)	Determinants of Payout policy of Malaysian listed firms	Secondary data from the annual reports from 2004-2008…	Pearson correlation analysis and Regression Model.	They found a positive correlation between debt ratio and dividend payout ratio.
Asad and Yousef (2014)	Impact of leverage on dividend payouts of manufacturing firms in Pakistan	Secondary data from the annual reports of 4 manufacturing firms from year 2006 to 2011.	simple OLS techniques	The results show that dividend payout ratio and leverage are negatively correlated.
Labhane and Mahakud (2016)	Determinants of the dividend policy of Indian	Panel data from 1994-2013	Regression model	The empirical indicate a positive correlation between financial leverage, investment opportunity, firm size, business risk,

	firms			company life cycle, profitability level, liquidity and tax.
Soondur et al. (2016)		Panel data of 30 companies listed on the on Mauritius Stock Exchange from 2009–2013	Panel regression	The result shows a negative correlation between dividend payout ratio and firm-levels, such as earnings, debt and free cash flows.
Aivazian, Booth and Cleary (2003b)	Dividend policy behaviour in different institutional environments; cross-country comparisons from eight emerging markets.	Secondary data from eight emerging markets From year 1981-1990	Pooled OLS technique.	Dividend payout ratios were positively correlated to ROE, and market-to-book ratio, while negative correlated to debt. Also, Country dummies shows a significant variation exist among countries.
Imran (2011)	Determinants of dividend payout decisions in the	Secondary data of 36 engineering	Pooled OLS with fixed effects and random effects	The results shows that dividend per share is positively correlated with previous year's earnings per share, profitability, sales

	Pakistan's engineering sector	firms listed on the Karachi Stock Exchange from 1996 to 2008 were used.	estimations were used in analyzing the results.	growth and firm size while negatively correlated with cash flow.
Gugler (2003)	Corporate Governance, Dividend Payout Policy.	Secondary data of 214 non-financial firms over the period of 11 years from 1991 to 1999. .	OLS model were used.	The results reveal that companies with state ownership are more involved in dividend smoothing as compared to companies with family ownership.
Al-Malkawi (2007)	Determinants of Corporate Dividend Policy in Jordan: An Application of the Tobit Model	Secondary data of firms listed on Amman Stock Exchange from 1989 to 2000 were gathered.	Logit regression analysis was used.	The study found a positive correlation between between dividend payout and firm age, earning and size.
Ahmed and Attiya	Dynamics and Determinants of	Secondary data of 320	GMM and OLS (Fixed effect	The findings reveal a positive correlation between dividend payouts and growth

(2009)	Dividend Policy	Non-financial firms listed on Karachi Stock Exchange from 2001 to 2006.	Model) are used for estimation	opportunities while negative correlation was found on firm size and market capitalization.
Yusof & Ismail (2016)	Determinants of dividend policy of public listed companies in Malaysia	Secondary data were obtained from the annual reports of 147 sampled companies.	Panel regession models (pooled OLS, Fixed and random effects).	The findings revealed a positive correlation between earnings, debt, size, investment and dividend policy, while debt ratio has a negative correlation to dividend payouts.
Jabbouri (2016)	Determinants of corporate dividend policy in emerging markets: Evidence from MENA stock markets	Secondary data were obtained from the annual reports from 2004-2013.	Panel regression method.	The study shows that dividend payout ratio is positively correlated to size, current profit, and liquidity and negatively correlated to leverage, growth, free cash flow.
Dewasiri et al.	Determinants of	Secondary data	Binary Logistic	The findings show that size, earnings,

(2017)	dividend policy: Evidence from emerging and developing markets	of 191 firms with 1,337 observations were obtained from the annual reports	regression analysis tool	liquidity, state ownership, industry dummies, investment opportunities, and free cash flows influences dividend payouts of firms listed on the Dhaka Stock Exchange.
Islam & Saha	An Empirical Analysis of Determinants of Dividend Policy: Evidence from the Bangladeshi Private Commercial Banks	Secondary data were obtained from the annual reports from 2008-2012.	Panel regression analysis technique	The study reveals that earnings, size, leverage, and liquidity were positively correlated to dividend payout ratio.
Dividend studies in the Nigerian context				
Okpara, Godwin Chigozie (2009)	Determinants of Dividend policy of Nigerian firms	Secondary data	Regression Techniques	The findings show a positive correlation between dividend payout ratio and current ratios, while negative correlation was found on past earnings.
Duke, Ikenna	Investigated the	Secondary	The regression	The findings of the study show that dividend

and Nkamare (2015)	impact of dividend policy on Nigerian commercial banks.	method of data collection was used from the annual accounts of the firms.	analysis employed in testing the hypotheses formulated.	yield and share price volatility are positively related.
Edet et al. (2014)	Determinants of dividend payout of financial institutions in Nigeria: A study of selected commercial banks.	Secondary data from the annual reports of selected banks from 1989-2010.	OLS regression analysis tool.	The result shows that dividend payout ratio were positively correlated with current earnings, lagged dividend and lending rate and negatively correlated to Inflation rate and liquidity ratio. Further analysis reveals that about 69.33% of earnings were retained by banks in Nigeria.
Oyinlola and Ajeigbe (2014)	Impact of dividend policy on stock prices of quoted firms in Nigeria between 2009-2013	Secondary data for 22 companies listed in the Nigerian Stock Exchange for 5 years from 2009-2013.	Multiple regression analysis techniques.	It was found that dividend per share and stock prices are positively related over the period covered.
Adefila, oladapo and Adeoti	The effect of dividend policy	22 companies listed on	Multiple regression	The study found that there is no relationship between dividend payments and share

(2013)	on the firms quoted in the Nigerian Stock Exchange.	Nigerian Stock Exchange (NSE) using secondary data from annual reports from 2009 to 2013.	technique.	prices.
Uwuigbe, Jafaru & Ajayi 2012	Dividend Policy and Firm Performance.	Published Accounts for 5 years from 2006-2010.	Multiple regression analysis technique.	Findings of the study show a positive relationship between dividend policy and firm performance.
Ozuomba & Ezeabasili 2017	Effect of dividend policies on firm value: Evidence from quoted firms in Nigeria.	Published annual accounts.	Multiple Regression technique.	Result shows that dividend policy influence firm value.
Egbeonu & Edori 2016	Effect of dividend policy on the value of firm: Empirical study of quoted firms in Nigeria Stock Exchange.	Secondary data from Published Annual Accounts for 5 years from 2011-2015.	Multiple regression analysis technique.	Findings of the study indicates that dividend per share is inversely related to firm value.
Nwidosie 2013	Corporate	Published	Chi-Square of	Findings of the study show that corporate

	Governance Practices and Dividend Policies of Quoted Firms in Nigeria.	Accounts of quoted firms	homogeneity with stratified random sampling	governance of Nigeria firms has no impact on the dividend policies of these firms.
Nduka & Titilayo 2018	The effect of dividend payment on share price of listed Oil and Gas firms in Nigeria.	Published Accounts of listed oil and Gas firms for 4 years from 2013-2017.	Ordinary Least Square technique.	Findings of the study show that dividend per share affect share price in the oil and gas sector in Nigeria.
Odesa & Ekezie (2015)	Determinants of Dividend Policy of Quoted Companies in Nigeria	Cross sectional data from 131 quoted companies in Nigeria.	A descriptive and ex-post facto research design and Descriptive, correlation and regression analysis were employed to test the relationship between the variables.	The result reveals that investment opportunity is negatively related to dividend policy while debt, ROE, shareholder structure, and last dividend paid have a positive significant relationship with dividend policy.

Zayol & Muolozie (2017)	Determinants of dividend policy of petroleum firms in Nigeria.	Data was obtained from nine petroleum firms in Nigeria from 2011-2014.	Data were analysed using descriptive statistics, correlations and regression analysis.	The extent to which profitability, firm size, liquidity and leverage affects the dividend payout of petroleum firms in Nigeria triggered this research work. Findings from the study revealed that firm size, liquidity and leverage does not affect the dividend policy of petroleum firms in Nigeria, while profitability was found to affect the dividend policy of petroleum firms in Nigeria.
Dada and Malomo (2015)	Determinants of dividend policy of Nigerian banks.	The study was based on panel data of selected Banks that are listed on the Nigerian Stock Exchange (NSE) having financial data for 2008 to 2013	Panel least square regression analysis was used. Dividend Policy while the future dividend can be predicted based on the current dividend.	The study revealed that Dividend payment is positively related with leverage, performance, corporate governance and last year dividend while it is negatively related with firm's liquidity. The study confirms the relevance of the Agency theory to the Banks

Uwuigbe (2013)	Determinants of dividends policy in the Nigerian stock exchange market.	Secondary data from the published annual accounts of 50 listed firms in the Nigerian stock exchange market period from 2006-2011 were selected and analyzed for the study using the judgmental sampling technique.	Regression analysis techniques	The findings revealed that there is a significant positive relationship between firms' financial performance, size of firms and board independence on the dividend payouts decisions of listed firms in Nigeria.
Bassey, N. E., Atairet & Asinya, (2014)	Determinants of dividend payout of selected Commercial Banks in Nigeria.	Secondary data were collected from the annual reports from 1989-2010.	Ordinary Least Squares (OLS) regression technique.	The findings revealed that current earnings, lagged dividend and lending rate were the major determinants of cash dividend payout in these banks.

Egbeonu & Edori (2016)	The effect of dividend policy on the value of the firms quoted in the Nigerian Stock Exchange.	Data from the published annual accounts for 5 years (2011-2015) were used.	They employed multiple-regression analysis in testing the data obtained from the published financial statements.	They asserts that dividend per share had a significant inverse relationship on the stock prices; while earnings per share are positively significant with share prices. They further assert that earnings per share played a significant role in influencing the share value of firms.
Osegbue, Ifurueze & Ifurueze (2014)	The effect of dividend policy on corporate performance of Nigerian Banks	Secondary data from the annual reports from 1990-2010.	Multiple regression analysis.	The findings show that free cash flow, current profitability, financial leverage, business risk and tax are not correlated to dividend payout of the banks over the period.
Kajola, Desu & Agbanike (2015)	Determinants of dividend policy of non-financial firms listed on the Nigerian Stock Exchange.	Secondary data from published financial statements from 1997-2011.	Panel data estimation techniques with fixed and random effects models.	Result indicates that dividend payout decisions of Nigerian firms were influences profitability, firm size and leverage.

Compiled by the Researcher

Appendix 4: Pooled OLS Results with Dummies

Dependent Variable	**Model 1** **Dividend Intensity(DI)**				**Model 2** **Dividend Payout Ratio (DPR)**			
Explanatory Variables	**Coefficient of Beta**	**Std. Err.**	**t**	**P-value**	**Coefficient of Beta**	**Std. Err.**	**t**	**P-value**
Profitability (ROA)	0.008	0.049	0.17	0.865	-0.098	0.089	-1.10	0.271
Firm Size (SZ)	-0.026	0.010	-2.62	0.009**	-0.006	0.018	-0.32	0.749
Growth	0.049	0.024	2.09	0.037*	0.021	0.043	0.48	0.635

Opportunities(GRT)								
Debt Ratio (DR)	-0.162	0.042	-3.86	0.000*	0.194	0.077	2.53	0.012 *
Liquidity Ratio(CURR)	0.010	0.010	1.00	0.308	0.0002	0.018	0.01	0.992
Tangibility of Assets(TANG)	-0.152	0.043	-3.52	0.000*	-0.152	0.079	-1.93	0.055 *
Time Effect (YEAR):								
2014	-0.001	0.022	-0.06	0.954	-0.003	0.040	-0.07	0.947
2015	-0.016	0.022	-0.73	0.465	-0.005	0.040	-0.12	0.906
2016	-0.022	0.022	-1.02	0.309	-0.064	0.040	-1.57	0.117
2017	0.003	0.022	0.12	0.908	0.003	0.040	0.08	0.936

Industry Effect (Industry)								
Oil and Gas	0.190	0.036	5.22	0.000	0.017	0.067	0.25	0.800
Consumer	0.010	0.035	0.28	0.780	-0.037	0.064	-0.57	0.568
Conglomerates	0.051	0.044	1.15	0.253	0.049	0.081	0.55	0.581
Services	-0.032	0.037	0.86	0.393	-0.109	0.068	-1.60	0.111
Health	-0.041	0.040	1.03	0.304	0.005	0.072	0.07	0.941
ICT	-0.021	0.047	0.46	0.647	-0.079	0.085	-0.92	0.358
Natural Resources	-0.026	0.059	0.45	0.656	-0.130	0.109	-1.20	0.233
Construction/ Real Estate	0.100	0.048	2.08	0.038	-0.013	0.089	-0.14	0.887
Industrial goods	0.002	0.037	0.05	0.958	-0.066	0.068	-0.97	0.331

Constant	0.328	0.083	3.96	0.000	0.391	0.152	2.58	0.010
Descriptive Statistics								
F-Test of Overall Significance (19, 350)	7.89				F-Test of Overall Significance (19, 350)	2.04		
Prob>F	0.000				Prob>F			
R-Squared	0.300				R-Squared	0.007		
Adj R-squared	0.262				Adj R-squared	0.099		
Root MSE	0.133				Root MSE	0.051		
No. of Observations	370						370	
No. of groups								
	74						74	

Values in (*) and (**) are significant at 5% and 10%

Compiled by the Researcher