CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The primary objective of financial management is to maximize firms' value to the owners and the stakeholders (Priya & Mohanasundari, 2016: 59). Managers achieve this through the three corporate financial decisions on investment, financing and dividend payment. Seyedkkhosroshahi, Sabaei and Vatankhah (2013), opined that "Investment" determines how the firm could allocate its resources; "financing" defines the combination of the required resources for investment and; "Dividend" answers the question of how much should be paid to shareholders.

Dividend distribution by a corporate firm is a fundamental obligation to shareholders and therefore ranks as one of the most important of all corporate financial policies (Uwuigbe, Jafaru & Ajayi, 2012). Company's ability to consistently pay out increased dividend over time conveys information about the management's assessment of the firm's future prospects. Dividend decisions, therefore, send strong signals to the market about firm's fundamentals. The investigation towards revealing the key determinants of dividend policy has been on over the years but still remains a puzzle. Research works on this subject have no doubt increased our understanding of the concept of dividend policy and its constituents but the puzzle still persists (Black, 1976). This could be the justification for the position taken by a school of thought that researchers have merely contributed to the multiple paradoxes of corporate dividend policy, thereby adding more pieces to an enlarged puzzle rather than finding the final matching piece that would provide a more precise and complete understanding of the determinants of dividend policy.

In early corporate finance practice, dividend policy referred to a corporation's choice of whether to pay its shareholders a cash dividend or to retain its earnings. It addressed the

frequency of such payments (whether annually, semi-annually or quarterly) and how much the company should if it decides to pay. Dividend policy, in today's corporations, has progressed beyond this scope to include such issues as whether to distribute cash via share repurchase or through specially-designated rather than regular dividends. Other issues considered are how to balance the preferences of highly taxed and relatively 'untaxed' investors; how to maintain, and improve the value of its shares and stocks in the market, etc.

Despite the increased interest in dividend decisions and the noted progression, the vital questions asked today by corporate managers are about the very same ones asked in the 1950s. Lintner (1959), identified these questions as (1) whether firms should maintain its current level dividend payments or change it? (2) Whether investors would prefer stable dividend payouts to those that fluctuate with firms' earnings? (3) Whether dividend policy should favour older or young investors? The dividend policy of companies has thus been a common subject of research for more than half a century and it has been related to several vital corporate matters ranging from agency problems to share valuation.

In the earliest works on dividend matters, Miller and Modigliani (1961) posited that investors should be indifferent to whether or not they receive dividends now or capital appreciation in the future. This idea is known as the Dividend Irrelevance Theory. According to them, an increase in current dividends must lead to a reduction in the terminal value of the existing shares because the dividend stream on the existing shares must be diverted to attract outside capital from which higher future dividends are paid. This theory has been grossly criticised for the assumption that markets are frictionless and does not carry transaction costs. These arguments have given rise to varying explanations on how dividend policy can affect firm value by other theorists.

The position of Proshare (2016) as cited in Inyiama and Ubesie (2016: 1) seems to support the relevance proponents of dividend policy that dividend-paying stocks, for many investors, have come to make a lot of sense in Nigeria given the traditional belief that making returns on investment is the essence of engaging in any investment or business venture. It further emphasized that many investors think of dividend-paying companies as having low-return investment opportunities compared to high-flying small capitalised companies whose volatility can be exciting; thus representing dividend-paying stocks as more mature and predictable. In Nigeria where capital gains are one of the items that enjoy tax exemptions (Capital Gains Tax Act Cap. 354 LFN, 1990, as amended, 2004), and dividend incurs 10% tax rate at the source, one would think that investors may disregard dividend-paying firms for the non-paying firms.

In a quest to understand the workings of the quoted firms in the financial and non-financial sectors of Nigeria, the researcher observed a number of heterogeneity from preliminary descriptive analyses. Among these observations is glaring discrepancy in their dividend payment pattern wherein greater proportion (53%) of the financial firms pay dividend from corporate reserve and yet greater proportion (58%) also are non-dividend paying firms as compared to 32% and 37% payment dividend payment from reserve and non-dividend paying policy, respectively. This understanding according to authors will boost the robustness of the findings following that this form of unique industry factors could influence results on the dividend-performance nexus (Rashid & Rahman, 2008; Khan, 2010).

Contextually, understanding the possible effect of dividend policies of Nigerian firms becomes pertinent. The core interest is to understand the signals that dividend decisions of management send to the users of its financial statements. The study did not intend to explain the factors that determine dividend policies but rather the aftereffects of these

dividend policies. In an imperfect market like Nigeria, where insider information may exist, it is difficult to monitor firm operations and decisions from outside. A study has to be carried out to assist investors to capitalise on available information on a firm's dividend policy, as a signal to make feasible investment decisions through the stock market. The study aims to help investors understand how the stock market reacts to a firm's dividend policies (shareholder's wealth, stock price volatility and stock liquidity) as well as the dividend effect on firm profitability. Thus the study endeavoured to explain whether investors can use the aftereffects of published dividend decisions to maximise shareholder's wealth, minimise stock market riskiness, target share trading in the stock market; as well as the after effects of the published dividend decisions on firm profitability.

1.2 Statement of the Problem

The argument on whether or not to pay a dividend has remained conflicting in the extant literature. Dividend policy has remained conflicting ideas all over the world, so much so that it has become a puzzle such that "the harder we look at the dividends picture, the more it seems like a puzzle, with pieces that just do not fit together" (Black, 1976). Understanding the effect of dividend policy on firm performance indicators (including shareholders wealth, stock price volatility, firm profitability and stock market liquidity) is important for the planning of portfolios especially to the management and investors. However, some researchers believe that dividend policies are irrelevant in determining firm performance while others believe that dividend policies are relevant and greatly affect the firm performance indicators. For instances, Miller and Modigliani (1961) believed that only the basic earning power and business risk can determine a firm's value, and thus posited that dividend policies are irrelevant in determining the firm performance. On the other hand, empirical studies by Ilaboya and Aggreh (2013), Abiola (2014), Wodung (2014),Garba (2014), Oyinlola, Oyinlola and Adeniran (2014), Duke, Ikenna and Nkamare

(2015), Simon-Oke and Ologunwa (2016), Osundina, Jayeoba and Olayinka (2016), Eniola and Akinselure (2016), and Omoregie and Eromosele (2016) argue that dividend policies are relevant and significantly influence the performance of firms.

More so, empirical studies in Nigeria have shown divergent and conflicting findings on the effect of dividend policy variables (dividend per share, dividend payout ratio, and dividend yield) on various firm performance measures such as shareholder wealth, stock price volatility, firm profitability and stock market liquidity, respectively. For instance, on dividend per share, studies from Adeleke and Obademi (2013), Garba (2014), Ordu, Enekwe & Anyanwaokoro (2014), Ojeme,Mamidu and Ojo (2015), Sulaiman and Migiro (2015), Omoregie and Eromosele (2016)), Simon-Oke and Ologunwa (2016) posited significant positive effect on shareholder wealth while Ezejiofor, Echekoba, Nwaolisa, Adigwe and Onyali (2014), Ordu, *et al* (2014), Alayemi (2013) reported that it has no effect. The dividend payout ratio had significant positive effects from Oyinlola et al (2014) but no effect from Anike (2014) while dividend yield showed a significant positive effect from Duke, et al (2015) but the significant negative effect from Anike (2014). On dividend policy nexus with stock market price volatility (riskiness of firms share price), divergence still exists in Nigeria. Dividend per share showed significant positive effect in the work of Osundina, et al (2016) but no effect in Egbeonu, Paul-Ekwere& Ubani, (2016); dividend yield was reported to have significant positive effect by Ilaboya et al (2013); significant negative effect in Okafor, Mgbame & Chijoke-Mgbame (2011) and Wodung (2014), but no effect in Egbeonu, et al (2016) whereas dividend payout ratio was more divergent with significant positive effect (Ajayi and Seyingbo, 2015 and Egbeonu, et al, 2016), significant negative effect (Wodung, 2014); no effects (Ilaboya et al, 2013), and yet mixed findings (Okafor, et al 2011) dividend yield were positive in some years and negative in other years. More so, dividend policy and firm profitability were also divergent in empirical studies in

Nigeria. More of the studies showed a significant positive effect (Ashamu, Abiola and Badmus, 2008; Ebiringa, Okoroegbe and Obi, 2014; Enekwe, Nweze and Agu, 2015; Ehikioya, 2015; Abdul and Muhibudeen, 2015; Kajola and Adewumi, 2016 and Osamwonyi and Lola-Ebueku, 2016), yet Akani and Sweneme (2016) reported that dividend payout had no effect while Turakpe and Fiiwe (2017) showed contradicting result among firms in the baking industry in Nigeria. Though dividend policy variables showed agreeable negative effects on stock liquidity, no known study to this thesis exists in Nigeria. With these array of different arguments in this issue, further research should be undergone in order to have a better understanding in this area.

Despite the conflicting results on dividend policy effects in Nigeria, Pradhan (2014) has given clue that all change on share prices may not be associated with dividend policy variables. It supposes that the mix-ups in empirical results in Nigeria could be that these studies only captured the time variances arising from an only boom or bear trend perspectives. Any study that uses a wider time frame covering periods of economic boom and periods of economic crises/recession could produce a more reliable cause-effect model of dividend policy in the Nigerian context.

The complexity of dividend decision may affect investors' confidence when they cannot lay hands on reliable strategies for monitoring their investment. Lack of parameters for understanding dividend policy and firm performance nexus could hamper stock trading in Nigeria and affect market efficiency and economic growth. There is, therefore, the need for models to explain the dividend effects on share prices, stock volatility, liquidity, and firm profitability. It is against this background that this study is hypothesised in order to provide further insight into the effect of dividend policy on the performance of quoted firms in Nigeria.

1.3 Objectives of the Study

The broad objective of the study is to examine the effect of dividend policy on the performance of quoted firms in Nigeria. The specific objectives are to:

1. Access the effect of dividend policy on shareholders' wealth.

2. Determine the effect of dividend policy on firms' stock market price volatility.

3. Access the effect of dividend policy on firms' stock market liquidity.

4. Ascertain the effect of dividend policy on firms' profitability.

1.4 Research Questions

The following research questions posed, were answered by this study:

1. To what extent does dividend policy affect shareholders' wealth in Nigeria?

2. To what extent does dividend policy determine firms' stock market price volatility in Nigeria?

3. What is the effect of dividend policy on firms' stock market liquidity?

4. To what degree does dividend policy affect firms' profitability in Nigeria?

1.5 Statement of Hypotheses

The following null hypotheses guided the study at 0.05 level of significance:

Ho1: Dividend policy does not have a significant effect on shareholders' wealth.

Ho2: Dividend policy does not have a significant effect on firms' stock market price volatility.

Ho3: Dividend policy does not have a significant effect on firms' stock liquidity.

Ho4: Dividend policy does not have a significant effect on firms' profitability.

1.6 Significance of the Study

All the stakeholders quoted corporate firms stand to benefit from this study. They include but not limited to the government and policymakers, the stock exchange, management of firms, shareholders and investors alike, as well as academia and students.

1.   Government and policymakers: The government of Nigeria will be enlightened on the variables relating to dividend taxes. The knowledge of the effect of dividend policies will assist in determining the appropriate amount of tax to pay for dividends paid out and their effects on stock market activities and firm operations.

2.   The Nigerian Stock Exchange: The Nigerian Stock Exchange is the financial and economic institution that facilitates investment in corporate firms by maintaining investor confidence and market liquidity. The literature embodied in this study could give the awareness and updated information that can assist the stock exchange in playing this role.

3.   The Management of quoted firms: In Nigeria, the corporate sector is facing stiff competition and harsh business environment due to the economic recession in the recent time. Firms that understand the after-effects of their dividend decisions can use it to improve business prospects.

As the outcome of this study can enable the management of quoted companies to determine the effect of their dividend policies, this will enable them to make prudent decisions regarding dividend payment. Thus, the information from this study could form the basis for the formulation of dividend decisions by management especially finance managers of listed companies whose main objective is to maximize the shareholder's wealth. The study will thus assist in making strategic investment decisions which would maximize shareholder's wealth, improve profitability, checkmates stock price volatility and volume of trading on its shares.

4.   Financial Consultants: The findings of the study will assist financial consultants to offer proper financial advice to their clients. The outcome of this study can assist them to determine the optimal dividend policy where the shareholders' wealth can be maximized at low stock price risk.

5.   Shareholders and investors: This study would also help potential investors to make informed investment decisions. The potential investors within the three categories of investors identified by clientele theory (dividend preference, capital gain preference, and indifferent investors) would be able to find a potentially suitable firm that practices dividend policies that maximize shareholder's wealth at low stock price risk.

The findings of this study would also provide an insight to shareholders on the logic how firms' returns are distributed and its effects on the stock market activities and corporate financial positions of listed firms which is useful in appraising the efficiency of the management in decision making.

6.   Academia and students: The study would be helpful to researchers and academics who may wish to use the findings of this study as a basis for further research on the effect of dividend policies on related firms and stock market variables. However, the models developed in this study can be replicated in a similar study.

1.7 Scope of the Study

The scope of this study is restricted to firms quoted on the Nigerian Stock Exchange (NSE). There are currently 173 quoted companies on the Nigerian Stock Exchange ("Nigerian Stock Exchange", 2017). This study selected 60 quoted companies from all the twelve sectors that have data on the needed variables for a period of eleven years starting from 2006 to 2016. This period may have captured a complete business cycle of the boom/peak/decline for the Nigeria economy in relation to the stock market activities. This idea is borrowed from Nicol (2013) to cover the two basic bear and bull reactions in a stock market.

Considering that there is a high disparity in the operating environments of financial and non-financial service sectors, the study was grouped into this two in line with the work of

Joshi (2015). Thus the study sought to capture the concerns of the financial services sector and the non-financial services sector, respectively.

1.8 Limitations of the Study

A number of limiting factors are identified. However, efforts were made to reduce the effects on the findings of the study. One of the limitations is on the variables used to measure dividend policy. A comprehensive study should have used a combination of cash, share and share re-purchase as seen in Salih (2010). In this study, only the cash dividend was considered. It is believed that this may not have a huge effect on the result following the proposition of the Bird-in-the-Hand proponents: that only the cash dividend drives the reactions of investors in dividend decision of firms. Hence, the result of this study should be understood from the cash dividend perspective only.

The essence of this study is to explain the effect of dividend policy on the financial performance of corporate firms in Nigeria. The scope had been limited to 60 firms within a time period of 11 years (from 2006 to 2016). The findings of this study are expected to apply on an all-time frame - even before and after these periods. Despite the sample taken, of all the 173 quoted firms, the results of this study were generalised on all the firms quoted on the Nigerian stock exchange. Even so, the sample size can be adjudged a sound representative and hence the inferences can be generalised on, at least, the Nigerian firms.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Conceptual Review

The conceptual framework of this study aims to explain all the key concepts that form the bedrock of the main and specific objectives of the study. These are the concept of dividend, dividend policy, shareholders wealth, stock market volatility, stock market liquidity, and firm profitability. At the end of this section of Chapter Two, the diagram linking all the variables employed in the study was developed.

2.1.1 Dividend

A dividend is generally that part of the firm's profit that is shared among the shareholders. From its simple to complex definitions offered by many authors, the dividend has remained one concept that has a universal definition.

In a simple form, Pandey (2005) defined dividend as the earnings distributed to shareholders. It can also be defined as distributions of a company's profit distributable to its shareholders (Yusuf, 2015). Dividends can be defined as the distribution of earnings (past or present) in real assets among the shareholders of a firm in proportion to their ownership (Kapoor, 2009). It is also defined as the return that accrues to shareholders as a result of the money invested in acquiring the stock of a given company (Eriki & Okafor, 2002). These definitions point to the fact that dividend is part of the profit of the firm. It is shared with the owners of the firm. Thus, Emekekwue (2008) noted that payment of dividend puts disposable income in the hands of shareholders. These are the ordinary shareholders who normally bear the risk of the business survival. That is why, dividend payment are distributions typically made after the tax and mandatory payments in case of a creditor of the firm (Kazman, *et al*, 1998). Thus, shareholders usually do not have the right

to receive this dividend until the management of the company passes a resolution declaring the dividend.

Following from the above, some authors in their definitions noted that dividend is paid in compensation for the risk of investment. Dividends are the compensation paid to shareholders for bearing risk on their investments (Shamsi, 2000). Again, it is for the benefit of shareholders in return for their risk and investment (Uwuigbe, *et al*, 2012; Ajanthan, 2013). Supporting the above views, Khan, Nadeem, Islam, Salman and Gill (2016) holds that dividend is the rewards which are usually distributed to shareholders for the time and risks undertaken in doing investment with a firm. According to Rahman (2015), a dividend is given as extra returns in addition to capital gains. These definitions explain that part of the reason for dividend is to compensate shareholders for the risk of investment in time and resources.

From the point of view of the pattern of payment, King'wara (2015) noted that it is a pro rata distribution profit to shareholders that is declared by the company's board of directors. Furthermore, other authors supported that dividend is distributed equally among the shareholders (Zameer, Rasool, Iqbal, & Arshad, 2013). Shukla (2011) noted that it is a unit share of the profit of a company paid to the shareholders. These definitions acknowledged that the decision for payment of dividend is normally taken by the management and is paid in proportion of the shares owned.

In another dimension, a dividend can also be a form of retained earnings kept in the business for self-financing in preference to sourcing fresh equity capital which may cause ownership dilution (Shodhganga, 2018). This means that dividends are not only cash paid out to shareholders.

A dividend can be broadly classified into two parameters;

i.   The source of dividend and

ii. The medium of payment.

In terms of source, dividends are mainly declared out of capital or profit. Payments of a capital dividend are only applicable in special circumstances and are often subjected to strict legal requirement (Shukla, 2011). The dividend paid out from profit is normally on the present year net profit, before retained earnings. However, the dividend that is paid from capital usually comes from a part of the profit retained.

Dividend according to the medium of payment can be classified into dividend given in cash or by means of capitalisation of shares (Bonus Share). Authors have recognised three specific classifications of dividend payment as cash, script/stock and property/share repurchase/Stock splits (Pandey, 2011, Emekekwue, 2008; Moyer, *et al.*, 1995 cited in Rahman, 2015). A cash dividend is distributed in monetary form as cash usually through funds transfer or dividend warrant, in form of return on investment (Sullivan, 2003 as cited in Egbeonu, *et al.*, 2016). When cash is used in paying dividend, such dividends are said to have benefited from the limited fund available to the firm and therefore, such funds, however, must be compared with the possible alternative needs of the firm, which could be more beneficial, before implementing the decision to pay the dividend (Shukla, 2011).

The stock dividend also called script issues are an issue of additional shares to shareholders (Rahman, 2015). It is a bonus stock usually issued on a pro-rata basis (D'Souza, 1999). The use of stock dividends implies that the company issues new stocks to existing shareholders in proportion of their existing shares (Zameer, *et al.*, 2013). Finally, the share repurchase is usually paid at the time of liquidation of the firm as a means to transferring the property of the firm back to the original owners.

In general terms, this study sees dividend as the part of company profit given to the shareholders as the reward for their investment risk. For the purpose of this study, a dividend is specifically defined as a cash payment to the holders of a company stock from the profits made from operations as the compensation for the shareholder's delayed consumption.

2.1.2 Dividend Policy

Firms have to deliberate on the dividend decisions. The decision on whether to pay, how much to pay and the periodicity of dividend payment is called dividend policy. It is normally decided upon and declared by a company after considering various critical factors as type and desires of shareholders, need for future expansion, nature and type of business, the age of a company, current profitability, liquidity position etc. (Rahman, 2015). The consideration also involves whether to pay in cash or stock. The desire for lower transaction cost may favour stock dividends (DeBondt & Thaler, 1995) while the need for ready cash favours payment of cash dividend.

This analogy boils down to the idea that the decision to pay a dividend is concerned with the division of net profit after taxes between payments to shareholders and retention for reinvestment on behalf of the shareholders (Kempner, 1980). Pandey (2011) noted that "dividend policy is a decision by the financial manager on whether the firm should distribute all profit or retain them or to distribute a portion and retain the balance.

Dividend policy is the payout policy which managers pursue in deciding the size and pattern of cash distribution to shareholders over time (Davis, 2006). According to Kapoor (2009) dividend policy connotes the payout policy, which managers pursue in deciding the size and pattern of cash distribution to shareholders over time. Booth and Cleary (2010) define Dividend Policy as a well-planned decision by the management which involves

deciding the percentages of profit to be distributed and the part to be retained to fulfil its internal needs.

Dividend policy decisions have been identified as one of the primary element of corporate finance policy (Uwuigbe, *et al.*, 2012). Thus, it is the guiding principle for determining the portion of a company's net profit after taxes to be paid out to the residual shareholders as dividend during a particular financial year; the purpose of a dividend policy is to maximize shareholders' wealth, by which is dependent on both current dividend and capital gains (Nwude, 2003).

Dividend policy has broadened in scope to now covers not only the issues of the firm's choice of whether to pay its shareholders a cash dividend or to retain its earnings; but extends to address the frequency of paying its shareholders a cash dividend or to retain its earnings (whether annually, semi-annually or quarterly), whether to distribute cash via share repurchase or through specially-designated rather than regular dividends, how to balance the preferences of highly taxed and relatively untaxed investors, how to maintain, and improve, the value of its shares and stocks in the market (Okafor, *et al.*, 2011; Kenyoru, Kundu & Kibiwott, 2013).

This connotes that dividend policy now implies that managers have to weigh the cost and benefits of its decisions regarding company declared profit. In firms where the investment policy is fixed, a certain amount of fund must be provided periodically for investment. In this case, there is always a trade-off between profit distribution as cash dividend or bonus shares and capitalization (Paramasivan & Subramanian, 2009). The corporate dividend decisions could be that, either the company holds back profit to finance capital spending on growth and expansion, repay debt, or putting out the bonds, if any, and the remaining cash dividend distribution, or to increase the proportion of cash dividends and capital

expenditure deficit financing by issuing new shares or foreign borrowing (Alslehat & Altahtamouni, 2014).

It is not permissible to conclude that all profit-making firms must pay a dividend (Mishra & Narender, 1996). In such a case, Sarwar (2013) suggested two forms of a dividend policy that firms can adopt: a) Managed dividend policy or b) Residual dividend policy. The residual dividend policy applies where the firms consider dividend payment only when it has satisfied all investment decisions. This requires that the amount of dividend is simply the cash left after the firm makes desirable investments using Net Present Value (NPV) rule (Alslehat & Altahtamouni, 2014).

In the managed dividend policy, managers only pay a dividend when it is in the best interest of the firm. According to Sarwar (2013), "If the manager believes dividend policy is important to their investors and it has a positive effect on share price value, they will adopt managed dividend policy". The amount of dividend is usually very variable and it may be zero most of the times. Thus firms normally establish a threshold such that whenever the retained earnings cross this threshold, firms start to pay the dividend (Radner & Shepp, 1996). The best dividend policy is one that increases the firm's share price, facilitates liquidity, reduces risk and thus leads to the maximization of shareholders' wealth.

Managers adopt the dividend policies that suit the stage of life cycle they find themselves. Firms at the early stage of its establishment might be at its growth state requiring capital injection, while old firms might have stabilised and reach its peak in growth. The early stage firm needing capital would best prefer dividend policy that encourages more retention of profit than old firms. The diagram in Figure 1 shows that high dividend payment firms

retain only a small proportion of its profit while business with capital gain policy retains a large proportion of its profit for investment.
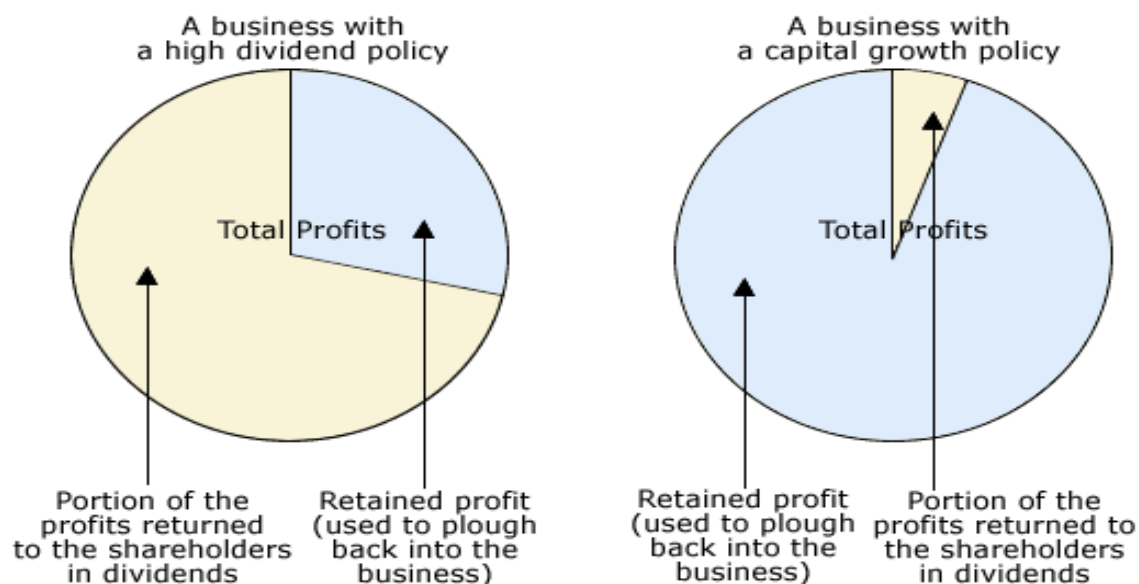
Figure 1: The diagram of a business with a high dividend policy Vs. business with a capital growth policy
Source: Lindeman (2016:14)

On a general note, companies can use one or more of the following policies for the distribution of profits: Distribution policy of a fixed percentage of the profits; Regular dividend policy; Reduced with bonus distribution policy; or the policy of the remaining profit (Alslehat & Altahtamouni, 2014).

The best option or decision is called the optimum dividend policy. The optimal dividend policy of a firm is usually determined based on the desires of the investor for capital gains as opposed to income, their willingness to forgo dividend now for future returns, and their perception of the risk associated with postponement of returns. Due consideration of all these variables is factored into the decision that results in optimal dividend policy of firms.

2.1.3 Shareholder's wealth

The term "shareholder's wealth" refers to the value of shareholder's investment in a firm. It is the measure of the worth of the firm. It is determined by those variables that can influence the opinion of investors and shareholders on the worth of the firm. Thus, shareholder wealth is measured by the share price of ordinary shares. Also, the earnings of the firm, as well as the assets, inform the firm value.

According to Priya and Azhagaiah (2008:181), shareholders' value is represented in the market price of the company's common stock, which, in turn, is a function of the company's investment, financing and dividend decisions. More so, shareholders wealth can be defined as "the present value of the expected future returns to the owners of the firm, as measured by the market value of the shareholders' common stock holdings (http://www.swlearning.com/pdfs/ chapter/032416470X_1.PDF). The most widely accepted objective of the firm is to maximize the value of the firm for its owners, that is, to maximize shareholder wealth. The price of the stock is used to measure the primary goal of maximising shareholders' wealth (Priya & Azhagaiah, 2008).

2.1.4 Stock market price volatility

Stock market price volatility is the "ups and downs in the stock prices during a time period" (Sadiq, Ahmad & Anjum, 2013). It describes the variation of the changes in a firms share price. This is usually measured using the standard deviation of changes in stock prices (Profilet & Bacon, 2013). According to Wodung (2014:12), "the issue of stock volatility is not that volatility exists, but that the volatility varies, hence the question as to why there is volatility of volatility". This gives rise to volatility clustering which according to Ilaboya and Aggreh (2013), occurs in a financial markets, when a high return (positive or negative) is more likely to be followed by another high return, or when a low return (positive or negative) is more likely to be followed by another low return. Ilaboya and

Aggreh further explain that volatility-clustering is a natural result of a price formation process when there are heterogeneous beliefs across traders; thus it is not the result of an autocorrelated news-generation process around public information such as macroeconomic news releases or firms' earnings releases.

The presence of volatility of volatility of what could be called volatility clustering gives rise to risk. In the opinion of Christina (2016), the risk of share price changes is the cause of stock market volatility. Following from this, Ilaboya and Aggreh (2013) noted that stock return volatility represented the variability of stock price changes which can be used as a measure of the risk faced by investors.

The volatility of the ordinary stock is the systematic risk faced by investors who possess ordinary stock investments (Guo, 2002). It is a measure used to define risk and represents the rate of change in the price of a security over a given time. Usually, the greater the volatility, the greater the chances of a gain or loss in investment in a short period of time as it is a measure related to the variance of a security's price. Thus, if a stock is said to be volatile, its price would greatly vary over time, and it is more difficult to say in certainty what its future price will be. In other words, the lesser the volatility of a given stock, the greater its attraction to investors (Criss, 1995 cited in Okafor, *et al.,* 2011).

Investors are by nature risk-averse and therefore, the volatility of their investments is of importance to them as it is a measure of the level of risk they are exposed to (Okafor & Mgbame, 2011). Kamuti (2013) explains that the volatility of the stock is a measure of uncertainty about the returns provided by the stock, and it is generally not observable. A market is said to be volatile if the past prices of stocks reflect in the future stock prices. Thus, to be able to input the estimates of the volatility of an underlying asset, one can only

observe the stock return series. Therefore, in the financial market; volatility is often referred to as the standard deviation or variance.

Rajni and Mahendra (2007) highlighted a couple of negative implications of stock price volatility amongst which includes that it affects consumers spending. A fall in stock prices will weaken consumer confidence. Stock price volatility may also affect business investments, and economic growth directly. Similarly, a rise in stock price volatility can often be interpreted as a rise in equity and thus a shift of funds to less risky assets. This move has been known to lead to a rise in the cost of funds to firms and, thus new firms (new entrants) might bear this effect as investors turn to the purchase of stocks in mainly well-known firms (Osundina, *et al.*, 2016).

Most often, stock market price volatility tends to rise when new information is released into the market, though the extent to which it influences price changes is a function of the relevance of that new information as well as the degree to which the news surprise investors (Black, 1976; Rajni & Mahendra, 2007; Ajao and Wemambu, 2012; Osundina, *et al.*, 2016). Stock market price volatility, as a result, is a good indicator for capturing the market trends as an increase or decrease in volatility results from changes in investor's reaction in the marketplace.

In an ideal efficient market, all information about a firm's asset fundamentals and growth opportunities should be properly reflected in its share price. Thus, the volatility of a firm's stock returns is expected to be a reflection of the volatilities of all aspects of the firm's future prospects, capturing the overall uncertainty relevant to the firm's investment decisions (Qingwei, 2012).

2.1.5 Stock liquidity

Liquidity is used to refer to the ability of investors to buy and sell securities easily. Levine (1997) sees liquidity as the ease and speed with which capital market agents can convert assets into purchasing power at an agreed price. Stock liquidity can further be described as the ease of selling the stock immediately after purchasing it, without lowering the price or incurring transaction costs, because "investors will come if they can leave" (Levine, 1996). Liquidity refers to the ability to trade large volumes quickly, at low cost, and without moving the price (Griffin, 2010). According to Ghodrati and Fini (2014), liquidity is trading shares at a low cost without influencing the price within the shortest possible time. These definitions connote that concept of stock liquidity entails the ability to sell off one's shares at shortest possible time period without losing value in terms of transaction cost or causing changes in prices.

The definitions have explained that liquidity allows the trading of large volumes of stock quickly, at low cost, and without moving the price. Liquidity will tend to affect the attractiveness of a stock to investors as most investors are also interested in the availability of channels to change investment decisions at will. Thus, investors may require higher expected returns on assets whose returns are sensitive to liquidity. In the local market, liquidity is also an important driver of returns in emerging markets (Bakaert & Lundblad, 2007). Stock market liquidity reacts to market anticipation such that it deteriorates before (after) anticipated (unanticipated) announcements (Graham, Koski & Loewenstein, 2006). This is applicable to emerging markets in the sense that emerging markets and economies are normally viewed as more volatile than other developed markets such as the United States, with economics and/or political news leading to large swings in liquidity (Griffin, 2010).

Some authors have used liquidity and turnover ratio interchangeably. Al-Faki (2006), for instance, opines that stock market liquidity is also denoted by the turnover ratio of the market. In the words of Baker and Stein (2004), they suggest that turnover, or more generally, liquidity can serve as sentiment index; thus representing measures of investor's sentiment. It is an important indicator of stock market development because it signifies how the market helps in improving the allocation of capital and thus enhancing the prospects of long-term economic growth. This is possible through the ability of the investors to quickly and cheaply alter their portfolio thereby reducing the riskiness of their investment and facilitating investments in projects that are more profitable though with a long gestation period.

Demirgüç-Kunt and Levine (1996) identified two main reasons why liquidity is important in the characterization of the stock market. The first is that liquidity relates to the riskiness of the investment. An investment is deemed to be less risky where investors are able to alter their portfolios quickly and cheaply. While the second, and theoretically too, is that allocation of capital is more efficient and as such a liquid market enhances long-term economic growth. Added to the above is that liquidity affects the attractiveness of a stock to investors. Osinubi (1998) cited in Osinubi (2001) pointed out that liquidity of the stock market facilitates profitable interaction between the stock market and the money market in that shares become easily acceptable as collateral for bank lending thereby boosting credit and investment. The fact that trading friction is pervasive in financial markets leads one to believe that the more liquid a stock is the better and that investors do, indeed, have a dividend preference based on the liquidity of the stock (Banerjee, Gatchev & Spindt, 2005).

Thus, one of the very crucial concerns that an investor considers when taking investment decision on a certain stock is the stock liquidity (Alnaif, 2015). Depending on the depth and extent of market development in any financial market, investors take into consideration

asset liquidity as one of the primary issues in investment because easy and early access to financial investment is important to investors (Ghodrati & Fini, 2014). It is mostly the risk of non-liquidity of assets that prevent investors from investment in Stock Exchange. Hence, the less liquid, the fewer investors' interest in purchasing shares. For this reason, liquidity is one of the positive characteristics of competitive markets. It serves as the basis for sustainability and an important factor for the study of efficiency and maturity of future markets (Yahyazadehfar & Larimi, 2008).

Two main indices of liquidity often used in the performance and rating of the stock market are total value traded ratio and turnover ratio. Total value traded ratio is the total value of shares traded on the Stock Market Exchange divided by Gross Domestic Product (GDP). It measures trading of equities as a share of national output. Normally, it should positively reflect liquidity on an economy-wide basis. Total value traded measures the investors' ability to trade economically significant positions on a stock market. On the other hand, turnover ratio is the value of total shares divided by capitalization. High turnover reflects low transaction costs. Turnover is an indicator of the liquidity of assets traded within a market. This study uses turnover ratio as a proxy for liquidity following that liquidity in the context of this study is the shares traded, and not on the national economy as a whole.

2.1.6 Firm Profitability

Eljelly (2004) defines profitability as the potential for a venture to be financially successful. Thus, it is one of the measures of the financial performance of firms. Profitability analysis focuses on the relationship between revenues and expenses and on the level of profits relative to the size of investment in the business. Thus it has been described as a qualitative measure of the input-output relationship of management and management efficiency in maximizing investor Return on Investment, Return on Assets, Return on Capital Employed and Earnings per share (Akani & Sweneme, 2016). Four useful measures

of profitability are the rate of return on assets (ROA), the rate of return on equity (ROE), operating profit margin and net income or earnings per share (Hansen & Mowen, 2005). These are regarded as market-based indicators of financial performance that captures the company's internal efficiency (Orlitzky, Schmidt & Rynes, 2003).

However, profitability is the operational concern of every profit-making organization. It constitutes the short and long-run management planning and operating strategies. Firms' profitability can be appraised at the macro and micro level (Aburime, 2008). At the micro level, profitability is determined prices of goods and cost of production. At the macro-level, of which this study is concerned, firms profit is a critical function of management, the composition of assets, capital structure, ownership structure and dividend policy (Farsio et al, 2004, as cited in Akani & Sweneme, 2016).

2.2 Theoretical Framework

The study anchored on three theories of dividend policy including the Miller and Modigliani Theory of Dividend Irrelevance, Gordon's (1962) theory of "The bird-in-the-hand" and Lintner's (1956) Signalling Effect Theory (information content theory). Thus the theoretical framework of the study hinges on these theories as they relate to the Shareholders wealth, stock market volatility, stock market liquidity and firm profitability.

2.2.1 Miller & Modigliani (MM) Theory

This theory is used as a framework to explain the shareholders' wealth and dividend policy nexus. The theory posits that the dividends policy does not affect the shareholders' wealth. The MM theory was the brainchild of Franco Modigliani and Merton Miller in 1961. They said that dividend policy is irrelevant and had no influence on a firm's share price as only the basic earning power and business risk can determine a firm's value. Thus splitting the firm's earnings between dividends and retained earnings does not have an effect on its value. This means that firm's value can only improve by quality investment policies and

not by whether the earnings are reinvested or distributed to the shareholders. Following this proposition, investors need to maintain their own cash inflows regardless of whether the stocks pay dividends or not. This suggests that, if the investors know the investment decision that is considered by the firm there would be no need for them to consider dividend policy in their investment analysis (Panigrahi & Zainuddin, 2015).

The MM theory equally argued that dividend and capital gain are two main ways that can contribute profits of a firm to shareholders. When a firm chooses to distribute its profits as dividends to its shareholders, then the stock price will be reduced automatically by the amount of a dividend per share on the ex-dividend date (Lashgari & Ahmadi, 2014).

The MM theory applies only to a unique situation under the assumptions that there is no transaction or flotation cost and no influence of investors on the market value of the share. Further to these assumptions is that there is no existence of taxes, as seen in the assumption relation to investment policy; and that financial leverage has no effect on the cost of capital; investors and managers have the same information about prospects; the distribution of income has no effect on the cost of equity, and capital budgeting policy is independent of its dividend policy (Panigrahi & Zainuddin, 2015).

The assumptions made by the MM theory do not have a strong logical backing and has faced strong criticisms. Among the loopholes is the assumption of no transaction cost and no taxes which is not possible in the real economic world. On this basis, it is believed that this theory will not work in the real world of market imperfection. Thus the bird-in-the-hand theory has been developed by Gordon in the year 1962, to show that dividend policy can affect shareholder value.

2.2.2 Bird-in-the-Hand Theory

The theoretical framework of the shareholder wealth and dividend policy nexus is also hinged on the Gordon's (1962) theory of the "The bird-in-the-hand" which posits that investors prefer dividends (certain) to retained earnings since the stock price risk declines as dividends increased. The theory also explains the sub-objective two of the study (the stock market volatility and dividend policy nexus).

This theory countered the Miller and Modigliani's theory of dividend irrelevance and proposed that the dividend policy of firms affects the market value of stocks even in the perfect capital market (Lashgari & Ahmadi, 2014). Gordon (1962) noted that investors are concerned about risk and preferred dividends received in the present to the firm's promising prospect with a high capital gain in the future. Hence, Gordon indicated that a change in the firm's dividend payout ratio would change investors' risk level when investing in stocks of the firm (Panigrahi & Zainuddin, 2015). A high dividend paying firm would reduce the risk or limit uncertainty about future income flows for shareholders, thus attracting more investors, and vice versa.

The foregoing is possible because investors prefer present dividend instead of future capital gains because the future situation is uncertain even in a perfect capital market. Many investors will tend to prefer dividend in hand in order to avoid risk related to future capital gain. The Gordon's theory further stated that the firm's dividend payout policy and the relationship between its rate of return (r) and the cost of capital (k) influences the market price per share of the company. The dividend yield and the future growth of the dividend provide the total return of the equity investors. Thus this model insists that dividend yield is an important measure for the total return to the equity investors than the future growth rate of the dividends. Future growth and capital gains cannot be estimated with accuracy and

are not guaranteed at all as it may lose the entire market value of the stock (Panigrahi & Zainuddin, 2015).

This theory assumed that there is no debt and all the capital structures achieved are from the equity. This implies that there is no external financing and the capital is financed by retained earnings. Furthermore, corporate taxes are not accounted for in this model. This model indicates that the market value of the company's share is the sum total of the present values of infinite future dividends to be declared.

The Gordon's model can also be used to calculate the cost of equity if the market value is known and the future dividends can be forecasted. The Gordon's model believes that the dividend policy impacts the company in various scenarios. If the growth rate of return is above the cost of capital (CoC), shareholders will be benefited more if the company reinvests the dividends rather than distributing it. In addition, when the internal rate of return (IRR) is equal to the cost of the capital (CoC), the reinvestment of the dividends would not make any difference. This model has therefore been greatly criticized due to the assumption of constant IRR and CoC, which is not accurate, as it means business risks are not accounted (Panigrahi & Zainuddin, 2015).

The "bird-in-the-hand" theory is however relevant to a number of the firm performance issues such as shareholder wealth, stock market volatility, and profitability nexus. Time value of money is the focal point of the argument. Thus, cash dividend paid today is expected to worth more than capital gain expected in the future.

2.3.3 Signalling Theory
The Signalling Effect Theory, also known as information content theory posits that dividend payment carries material information to shareholders and investors in the stock market about the prospects of its performance. The theory has its origin in Lintner (1956)

which revealed that the price of a company's stocks usually changes when the dividend payments change. It formally came to the limelight following the criticisms of the Modigliani and Miller (1961) postulations and agreement that investors and management have asymmetric information. Miller and Modigliani (1961) then suggested that dividend changes convey material information and that share prices react positively to the announcements of dividend changes (Al-Qudah & Badawi, 2014). Al-Qudah and Badawi explained that 'the signalling hypothesis had further been generalized to include not only information about share prices but the information content of earnings announcements, and the association between dividend and earnings changes as well as the future cash flows of the firms" (pg. 2).

The firm managers have the necessary information about the financial position and costing which the investors and existing shareholders do not have. The managers relied on this information to make a financial forecast on the future growth prospects of the firm. This information can be used for or to the detriment of the shareholders. The shareholders use external information as a measure of the intents of managers and prospects of the firm. Thus, the investors and existing shareholders may rely on the external pieces of information, one of which is the one offered by the dividend payment, as an outlook to the business prospects of the firm. Hence, dividend policy has information content that serves as signals. For this reason, the capital market responds quickly to the announcements of share buybacks as they offer new information that is often called a signal to the shareholders or investors about a company's future and hence its share price (Panigrahi & Zainuddin, 2015).

The two important assumptions of the signalling theory are that (1) outside investors have imperfect information regarding the firm's future cash flows and capital gains, and that, (2) dividends are taxed at a higher rate compared to capital gains. Both assumptions are true to

the real world: the imperfect capital market system. Thus this theory could be the most suitable of all the three (3) theories on which this study is based. Bhattacharya (1980) argued that dividends might function as a signal of expected future cash flows. Under these assumptions of the imperfect market, even when there is a tax disadvantage for dividends, firms would prefer dividend payment in order to convey positive signals to investors and shareholders who do not have first-hand information about the firm.

For these reasons, investors and shareholders use dividend policy as an eye into the affairs of the firms (Healy, & Palepu, 1988, Murhadi, 2008). They follow dividend policy in making their investment decisions. For instance, Lindeman (2016: 44-45) would explain that reduction in firm's dividend signals that everything is probably not going as planned and expected financial results were not achieved; as such investors reactions reflect on the share price, presumably making it decrease in value. On the other hand, increasing and high dividend payout will signal growth opportunities and as such, shareholders can re-invest the funds in the high dividend paying firms thereby providing opportunities for expansion in the future (Duke, et al, 2015). Presumably, this expectation may bring about the rise in the share price. However, Duke, et al explained that level of dividend payment (high or low) does not always connote that a firm is doing well or poorly. Duke's at al explanation is true especially when firms can go out of their way to pay a dividend from past years reserves.

According to Oppong (2015:26), the dividend signalling theory has several implications for the firm. These include: (1) Firms will pay dividends to signal quality to the market; (2) Firms will be very reluctant to cut their dividend because that will provide a negative signal; (3) Firms will not increase their dividend unless they feel comfortable that they can maintain the dividend in the future; (4) as a result, the pattern in dividend payments will be much smoother than the pattern in earnings or cash flows; (5) As dividend increases are

associated with positive stock price changes, and dividend cuts associated with negative stock price changes, firms may forego projects that add value to the firm in order not to have to cut the dividend. Further to this, Oppong (2015:26) asserted that firms would normally be reluctant to cut dividends. As investors know this, they would hence interpret dividend cuts to indicate a serious problem; this makes firms more reluctant to cut dividends. This theory is therefore of huge significance to this study, as it implies that dividend policy can be employed to convey information about the cost of investment.

2.3 Empirical Review

Extant literature on the various specific objectives of this study was reviewed. Since this thesis is an empirical study, the review of empirical studies has been used to establish any possible gap.

2.3.1 Effect of dividend policy on shareholders wealth

Waithaka, Ngugi, Aiyabei, Itunga and Kirago (2012) employed a survey design to examine the relationship between dividend policy and share prices. Dividend policy was disintegrated into clientele effect, tax incentives and free cash flow to form the three sub-objectives of the study. A random sampling technique was employed to study 35 staff members from the forty-six listed and trading companies in the Nairobi Stock Exchange (NSE). The results from the multiple regression analyses conducted revealed that all the variables of dividend policy have a significant positive effect on share prices. This finding connotes that higher pre-tax risk-adjusted returns are associated with higher dividend yield stocks to compensate investors for the tax disadvantages of returns affected by tax incentives and that investors whose portfolios had low systematic risk preferred high-pay-out stocks. Also, an increase in firms' stocks trading volume affected the share price and investors who wanted current investment income owned shares in high dividend payout firms; and as well free cash flow caused conflict between management and shareholders

which in turn affected the share price and that the executive option plan persuaded management to reduce corporate dividends by an amount that was equal to the option plan.

In Pakistan, Sarwar (2013) employed a six-year panel data from 33 companies quoted in the sugar industry to examine the impact of dividend policy on shareholder's wealth between 2006 and 2011. The descriptive statistics and multiple regression analyses were employed for data analyses. The variables included dividend per share (DPS), earnings per share (EPS), Lagged Market Price Ratio (LMPR), Lagged Price Earnings Ratio (LPER) Price Earnings Ratio (PER) Retained Earnings Ratio (RER) as independent variables and market price per share (MPS) as the dependent variable. The findings showed that DPS, EPS and LMPS had a significant positive effect on MPS while LPER had a negative significant effect. However, PER and RER did no show significant effects on MPS. Noting further, that 99% variations in MPS are due to the explanatory variables, the study concluded that dividend policy has a significant effect on shareholders wealth.

Ndung'u (2016) in his project report for the award of Masters in Business Administration (MBA) carried out a study to determine the effects of dividend policy on market share prices for firms listed in the Nairobi Stock Exchange of Kenya. Using a sample of 30 firms out of the 59 quoted firms within a 5-year period from 2007 – 2011, the study employed a sector-by-sector simple regression models wherein dividend payout ratio was used as the independent variable while share prices were the dependent variable. The study found that companies consider several issues before issuing dividends which include dividends paid in the previous period, the dividends to be given to the preferred shareholder, what the rival companies pay, the net earnings during the period, the amount in the reserves and the investment prospects. It also concludes that the share market is positively responsive to the dividend announcement such that the share market value of dividends improves in the few

weeks after a high dividends announcement, noting that dividend announcement had a positive and significant effect on the share price in Kenya.

Using an ex-post facto research design Anike (2014) employed three simple regression models to examine the impact of dividend yield, earnings yield and payout ratio on stock prices of Nigeria banks. The variables were obtained from a panel data covering the 5-year period (2006 to 2010) collated from annual reports of banks and the Nigeria Stock Exchange daily official list. The Ordinary Least Square Regression Model was used to estimate the relationship between dividend yield, earnings yield, payout ratio and stock prices. Average of daily stock prices was adopted as the dependent variable, while the independent variables included dividend yield (DY), earnings yield (EY) and payout ratio (POR). The result of this study revealed that dividend yield had negative and earnings yield had negative and, significant impact; while dividend payout ratio had a negative and non-significant impact on commercial banks' stock prices in Nigeria. The study, however, concluded that the dividend yield, earnings yield and payout ratio are not factors that influence stock prices, rather the bank size was found to have a positive and significant impact on stock prices.

With the notion that management is often in a dilemma on how much a company should pay its stockholders as a dividend, Mokaya, Nyang'ara and James (2013) carried out a study to determine the effects of dividend policy on the market share value in the banking industry in Kenya. Using an explanatory research design covering a proportionate sample of 100 shareholders drawn from a target population of 47,000 shareholders of National Bank of Kenya (NBK), the study employed a structured questionnaire for data collection. While the Pearson's Moment Correlation was used to test the research hypotheses, ANOVA was used to further test the working of the postulated model while regression analysis was applied to test the model in explaining the variable relationships. With a

response of 68%, the study established that NBK had a dividend policy as confirmed by 91% of the respondents. The results established a strong and positive correlation between dividend payout and market share value; a positive correlation between dividend growth rate and market value of shares; and a positive correlation between regularity of dividend declaration and market share value. The study thus concludes that dividend policy had a significant effect on the market share value.

Tuigong (2015) noted that share prices of listed firms in the Nairobi Securities Exchange severely fluctuated making it difficult for investors to make informed investment decisions. He, therefore, carried out a study to investigate the effect of dividend policy (cash and share dividend) on the stock prices of firms in Kenya. With the help of volume weighted average price as dependent variable and cash dividend per share and share dividend per share as independent variables, the study factored in net assets per share, retained earnings per share, debt-equity ratio and earnings per share as control variables to create a multiple regression model used in the data analyses. The data were collected from a sample of 55 companies selected from the 10 economic sectors represented at the Nairobi Securities Exchange between the period of 2001 and 2011. The results from the Random Generalized Least Square regression analysis showed that there was a statistically significant positive relationship between cash dividend and share prices while there was statistically insignificantly negative relationship between share dividend and share prices. The study thus confirmed the relevance of dividend policy on the firm's value.

The empirical study by Jakata and Nyamugure (2013) showed that dividend policy does not affect share price. Specifically, the study examined the effects of dividend policy on the share price of firms. The study employed a sample of 10 firms that cut across the six sectors covering commodities, consumer, financial, manufacturing, property and mining of the Zimbabwe Stock Exchange (ZSE) between 2003 and 2011. Findings from the Pearson's

Correlation Coefficient and linear regression models showed that dividend policy and earnings per share have no relationship with a share price of a firm.

In Pakistan, Gul, Sajid, Razzaq, Iqbal and Khan (2012) examined the influence of dividend policy on shareholder's wealth of 75 companies listed in Karachi Stock Exchange, for the duration of six years from 2005 to 2010 using multiple regression and stepwise regression. The study proxied shareholder's wealth as a dependent variable which is measured as market price per share, whereas the explanatory variable dividend policy is measured as dividend per share, lagged price earnings ratio, retained earnings and lagged market value of equity. The result from regression analyses indicated that dividend policy lagged price earnings ratio, and lagged market value of equity had a significant effect on the wealth of shareholders. However, retained earnings are found to have an insignificant influence on the market value of equity (wealth of shareholders).

Using the textile sector in Pakistan, Alim, Ali, Ali, Khattak and Qureshi (2014) examined the impact of dividend policy on shareholder wealth during the period of 2001 to 2010. The study developed a model taking the market price per share as dependent variable whereas dividend per share, dividend payout, earning per share, price earning, lagged value of market price and lagged value of price earning were used as independent variables. Analyses from a sample of fifty textile listed companies in the Karachi Stock Exchange with statistical tools: mean, standard deviation and multiple regression models, indicated that all the independent variables used in the study have a direct relationship with the market price per share. Specifically, the findings reveal that the dividend policy of the firm has a positive impact on the stock price of the firm.

In Ghana, Attah-Botchwey (2014) employed a survey design to investigate the impact of dividend payment and its relationship on the share price for companies listed on the

country's stock exchange. A structured questionnaire used for data collection was administered on sixty (60) respondents randomly selected from six companies from a total of the 36 companies listed on the Ghana Stock Exchange. Results from frequency distributions found that as the dividend of companies increase, the share price also rises due to the pressure on the share. The study thus posits that under normal circumstance, firms with higher dividend payment always experience rising share price as a result of higher demand of shares; and firms with lower dividend meets with decreasing share price.

In the context of Nepal, Joshi (2015) examines the impact of dividends on the stock price. The study had employed current market stock price taken as a dependent variable and four other variables namely Dividend per Share (DPS), Retained Earnings per Share (REPS), Lagged Price Earnings Ratio (P/E ratio) and Lagged Market Price per Share (MPS) as the explanatory variables. Three models were developed where the first model employed the only dividend and retained earning while the second and third models factored in lagged market prices and lagged price earnings ratio respectively. The panel data obtained from the population of 210 companies listed from 2005 to 2010 were divided into two groups of the banking sector (117) and non-banking sector (46). The regression results from each of the three models showed that the coefficient of dividends is higher than the coefficient of other variables in all sectors. This shows that the impact of dividends is more pronounced than that of retained earnings.

In UK, Salih (2010) in his thesis empirically explored the relationship between dividend type (cash dividend, share dividend and share repurchase), earnings (EPS) and investment policy (retained earnings per share) with the market value of a company using annual and semi-annual data for 362 companies in different UK sectors by adopting Panel Data for the period extending from 1998 to 2007 (twenty periods), where the fixed-effect (within)

regression model. Among other findings, the results show that there is a relationship between dividend policy and the market value of a company.

In another UK study, Chenchehene and Mensah (2015) sought to find out the effect of dividend policy on shareholders wealth among 25 firms from the retail industry in the UK from 2004 to 2008. The study adopted the fixed effect estimation technique for data analyses where share price was taken as a function of earnings, profitability, firm size, leverage and investment. The results from the three models analysed indicated that firm size, current dividend payout and current investment do not have a much significant effect on shareholders wealth. However, variables such as earnings, profitability, share price, leverage, investment and previous year dividend payout have a significant effect on shareholders wealth. Thus the study posited that dividend policy has a positive effect on shareholders wealth.

In the Iranian context, Alireza (2013) carried out a study to determine the effect of dividend policies on stock price using a panel data from 165 quoted companies randomly selected from Tehran Stock Exchange during the five-year period spanning 2007 to 2011. The results derived from the Kolmogorov-Smirnov test showed that that the independent variables (dividend per share and earnings per share), as well as the dependent variable (stock price), had a normal distribution. Further analyses from least square regression analyses indicated that there is a linear relationship between dividend policy and stock price.

From the Nigerian perspective, Ozuomba, Anichebe and Okoye (2016) examine how shareholders wealth is affected by dividend policies. The study involved a sample of 120 of questionnaires distributed to finance managers, chief accountants, directors of 10 quoted

companies in the Nigeria stock exchange. The data were analysed using ANOVA. The findings showed that Dividend policies influence the wealth of shareholders.

In another study from Nigeria, Ojeme, et al (2015) examines empirically, the implications of adopted dividend policies on the value of shareholders' wealth and the extent to which dividend policy affects the market value of shares in quoted banks between 2007 and 2010. The results from correlation analyses showed that payment of a dividend by quoted banks is relevant to their market value and the amount paid as dividend affects the value of their share.

Oyinlola and Ajeigbe (2014) examined the impact of dividend policy on the stock prices of quoted firms in Nigeria. The study used an annual panel data obtained from 22 companies listed on the Nigerian Stock Exchange (NSE) from 2009 to 2013. Regression analysis, Correlation analysis and Granger Causality Test were used to test research hypothesis on 110 observations and the findings reveal that both dividend payout and retained earnings are significantly relevant in the market price per share of the companies.

Still, in Nigeria, Duke, et al (2015) investigated the impact of dividend policy on share price valuation on two selected banks operating in the Nigerian economy (GTBank and United Bank for Africa) with eleven year period covering 2003 to 2013. With market price as the dependent variable while dividend yield and retention ratio included in the independent variables; the analyses were performed using the ADF Unit Root Test and the ordinary least squares test. The results indicated that dividend yield had a significantly positive effect on share price while retention ratio was found to have a significantly negative effect on it.

Nicol (2013) carried out a research thesis in South Africa to investigate how the size of cash dividend payments, measured in dividend yield (DY), influence share value,

especially during bull and bear markets respectively, using a sample of listed and delisted shares for the period 1995 to 2010. The study considered all the firms that were listed on the Johannesburg Stock Exchange (JSE) during the period under review. They included both firms that were listed at the end as well as firms that delisted making up the 291 firms that provided the 22,927 monthly observations for the study. Dividend-investing strategies were constructed using non-dividend paying (Portfolio one) and dividend-paying firms (Portfolio two). Portfolio one and two were then further deconstructed into four groups based on monthly DY rankings. The findings from the OLS regression analyses performed indicated that the level of DY appears to influence returns positively. Further results revealed that during bear markets no significant difference in abnormal risk-adjusted returns existed for the portfolios and four groups, however, in bull markets, the return for Portfolio two (especially the high dividend-investing firms), was more than double the result for the non-dividend payers.

Another Kenyan study from Luvembe, Njangiru and Mungami (2014) modelled capital structure, corporate earnings, dividend payout ratio and capital market investments as a function of market value, establish the effects of dividend payout on the market value of banks listed on the Nairobi Stock Exchange (NSE). The study involved the 10 listed banks in Kenya as at December 2010. Both secondary and primary data were used for the study with the secondary data obtained from Nairobi Securities Exchange covering the period between 2006 and 2010 while the primary data was collected from senior finance officials through an interview schedule. Results obtained from both descriptive statistics and OLS regression analyses revealed a significant and positive relationship between market value and capital structure, corporate earnings, dividend payout ratio and capital market investments in most of the years. It, therefore, concludes that the dividend policy adopted has a significant impact on the market value of banks.

With a sample of twenty-five companies listed at Karachi Stock Exchange (KSE-100) Index within the period of 2001 to 2010, Khan (2012) carried out a study to further explain the effect of dividend announcements on stock prices using the chemical and pharmaceutical industry of Pakistan. The results, based on Fixed and Random Effect Model, revealed that Cash Dividend, Retention Ratio and Return on Equity has significant positive relation with stock market prices and significantly explains the variations in the stock prices of chemical and pharmaceutical sector of Pakistan while Earnings per Share and Stock Dividends have negative insignificant relation with stock prices.

Rane and Raju (2016) employed the event study methodology to examine share price reactions on dividend announcement. Using a random sampling technique, the study selected 57 most actively traded healthcare companies listed in Bombay Stock Exchange during the year 2001 to 2016. The results revealed that stock price reaction to dividend announcement is statistically significant. The results from the t-test value on Average Abnormal Return (AAR) for portfolio shows that for most of the days during the post-announcement event window they are statistically insignificant at 5% level. However, the ANOVA result indicated a sufficient evidence of price sensitive information during dividend announcement. The study, therefore, posits that dividend announcement contains price sensitive information.

With a sample of 30 firms quoted in the textile, cement and chemical sector of the Karachi Stock Exchange of Pakistan, Ansar, Butt and Shah (2015) examined the relationship between shareholders wealth and dividend policy for a time period spanning five years from 2007 to 2011. Shareholders wealth was measured by the market price of shares as a function of dividend per share, retained earnings, lagged price and return on equity. Results from multiple regression revealed that there is a strong relationship between shareholders

wealth and dividend policy. The study thus concluded that shareholders wealth in Pakistan is increased by dividend policy.

In the context of Pakistan, Iqbal, Waseem and Asad (2014) examined the impact of dividend policy on shareholders' wealth using a sample of thirty-five companies randomly selected from three sectors of Textile, Sugar and Chemical for a period of six years from 2006 to 2011. Simple OLS technique for analysis is used to derive the results of the study. The findings showed that the dividend policy of the firm has a significant positive impact on shareholders wealth. Similarly, the firm's growth rate also has a significant positive impact on shareholders' wealth. Firm's size has a significant positive impact on shareholders wealth; indicating that large domain of operations of a business makes it more capable to exploit maximum opportunities and in position to earn a greater amount of return due to greater growth prospects so it ultimately places greater value to shares of large size companies.

Still, in the Pakistani context, Rehman (2015) carried out an empirical study to examine the impact of dividend policy. Based on financial data collected from all listed firms in KSE-100 Index for the period of 15 years, the study developed a multistage model that regressed dividend per share, retained earnings per share and capital gains as a function of market price per share. The data were analysed using correlation, multistage regression and Granger causality tests. Findings revealed that market price per share has a strong significant positive relationship with dividend per share and also has a strong significant causal relationship. Further results showed that there was no relationship found to exist between market price per share and capital gain. The study tends to posit that Pakistani markets investors prefer dividend instead of capital gain because of the uncertainty of future prices and it can also be concluded that the dividend policy is relevant to the stockholders' wealth.

In the context of Sri Lanka, Kumaresan (2014) carried out an empirical study to find out the impact of dividend policy on shareholders' wealth of top ten listed companies under hotel and travel sector between 2008 and 2012. The study used earnings per share as a proxy for a shareholder's wealth. The explanatory variables included the dividend payout ratio, dividend per share, retention ratio and return on equity. The analyses were performed using correlation, regression and descriptive statistics and showed that dividend policy has a significant impact on shareholders' wealth. Findings revealed that there is a positive relationship between return on equity, dividend per share and dividend payout ratio and shareholders' wealth, while retention ratio had a negative relationship with shareholders' wealth.

Azhagaiah and Gejalakshmi (2015) analysed the relationship between dividend policy and shareholders' wealth using thirteen out of the sixteen Fast Moving Consumer Goods (FMCG) sector firms listed on National Stock Exchange (NSE) of India. The study employed earnings per share as a dependent variable while dividends per share and retained earnings per share were the independent variables. The econometric data analyses tools involved descriptive statistics, Augmented Dickey-Fuller Test (ADF), White - Heteroskedasticity Test, Auto-Correlation, Breuch-Godfrey Serial correlation LM test, Lagrange Multiplier (LM) for Autoregressive conditional heteroskedasticity (ARCH-LM), Johansen Cointegration and VAR Granger causality test/Block Exogeneity Wald Test. The results showed that there is a long-run relationship between dividend per share as well as retained earnings per share and earnings per share. Further results indicated a significant causality between dividend per share and earnings per share; retained earnings per share and earnings per share; retained earnings per share and dividend per share; and earnings per share and retained earnings per share. The study thus concludes that dividend policy had a significant effect on shareholders wealth.

With the help of descriptive data gathered within the period of five years period from 2008 to 2012, Iqbal, Ahmad, Ullah and Abbas (2014) provided empirical evidence of the effect of a change in the dividend on the stock price using the banking sector of Pakistan. The descriptive statistics and regression analysis revealed that dividend has a positive regression with the earning per share and negative regression dividend with the stock price.

Bawa and Kau (2013) aimed at verifying the impact of dividend policy on shareholders' wealth for firms in the Indian Information Technology Sector during the period of 2006 to 2010. The proxy for dividend policy included in the study was dividend per share, retained earnings per share, lagged price earnings ratio and lagged market price per share while market price per share was used as dependent variable. Panel data methodology was applied on the variables to know the impact of dividend policy on the market value of equity as well as whether there is the difference on the effect of dividend policies of the dividend-paying and non-dividend-paying firms on their shareholders' wealth. The results show that in the long run wealth of shareholders of dividend-paying IT companies has increased significantly as compared to non-dividend paying IT companies.

With the help of the Fixed Effect Model, Omoregie and Eromosele (2016) examined the effects of dividend policy on shareholders' wealth from a panel data of ten (10) quoted banks in Nigeria covering 2010 to 2014. The findings revealed a dividend per share and retained earnings had a positive and robust significant relationship with shareholders' wealth; while earnings per share exerted a robust negative significant effect on shareholders' wealth. The study then concluded that the dividend policy of a firm has an impact on its shareholders' wealth as supported by the Dividend Relevance theory which explains that dividend policy has a significant effect on shareholders' wealth as well as firms' value.

Ezejiofor, et al (2014) assessed the impact of dividend policy on shareholder's wealth for firms quoted on the Nigerian Stock Exchange between 2006 and 2012. Using earnings per share as a proxy for shareholders' wealth, the explanatory variable is dividend per share, with firms' investment as a control variable. With data from five blue-chip firms, the correlation and regression analyses were employed for data analyses. The results from the coefficient of regression indicated that dividend per share had an insignificant positive effect on earnings per share while firms' investment insignificantly negatively affected earnings per share. Thus, the findings imply that dividend policy does not have a significant effect on shareholders wealth.

Using a 61-day event window, Mukora (2014) carried out a study to investigate the effect of dividend announcement on stock returns of firms listed at the Nairobi Securities Exchange. The time frame was divided into 30 days before the dividend announcement date, 30 days after the announcement date and day 0 (zero) as the dividend announcement date, and observed on a sample of five commercial banks within a period of five years. The variables included were abnormal returns and the cumulative average returns. The graph of the event window showed that the average abnormal returns were negative before the announcement date and positive after the announcement date and equally fluctuated for all the days; while the cumulative average abnormal returns sloped downwards before the announcement date and sloped upwards after the announcement date for the periods under study. The graph for the average abnormal returns fluctuated over all the years. The test of significance was conducted for both the average abnormal returns and the cumulative average abnormal returns. The null hypothesis that dividend announcement does not have an effect of stock returns of firms listed at the Nairobi Securities Exchange was rejected. This led to a conclusion that dividend announcement had a positive effect on stock returns for firms listed at the Nairobi Securities Exchange. The results of the t-test showed

significant difference indicating that dividend announcement has a positive effect on stock returns of firms. The study thus concluded that the Nairobi Securities Exchange market reacts to new information such as the dividend announcement.

Sharif, Ali and Jan (2015) investigate the effect of dividend policy on stock prices using 45 non-financial companies listed on KSE-100 index that have earned profits and paid a dividend for a 12-year period from 2001 to 2012. With the help of pooled regression, fixed and random effect tests, the random effect regression result supported Housman test, showing that dividend per share and retention ratio had an insignificant relationship with share market prices, whereas dividend payout ratio has a significant positive relationship with share prices thereby supporting the Bird in hand theory. This implies that owners give preference to a dollar of estimated dividends over a likely dollar of capital gains.

In Kenya, Kibet, Jagongo and Ndede (2016) used a sample of 55 listed firms in the Nairobi Securities Exchange covering five-year time series from 2001 to 2011. The objectives examined the effect of dividend policy (cash and share dividend) on the stock prices using equity Market Price as the dependent variable and cash dividend and share dividend as the independent variables. A panel result obtained from Ordinary Least Square regression indicated a positive relationship between cash dividend and share prices, and the insignificant negative relationship between share dividend and share prices.

Studies from Bangladesh were also reviewed. One of them is from Al-Hasan, Asaduzzaman and Karim (2013) that evaluated the effect of dividend policy on the market price of share among 28 companies in Bangladesh. The data covered 7 companies selected from each industry of the four industries –Automobile, Cement, Textile and Pharmacy, for the period of 2005 to 2009, employing descriptive statistics, correlation and multiple regression models for data analyses. The study used Dividend per share (DPS), Retained

earnings per share (REPS) as independent variables, while the market price per share was the dependent variable. The result indicated that highly dividend paying industries have more market price per share (MPPS) than low dividend paying industries.

Another study from Bangladesh, Al Masum (2014), posed the question: do dividend policy decisions affect a firm's stock price? He then examined the relationship between dividend declaration practice and shares market price among thirty commercial banks listed in the Dhaka Stock Exchange (DSE) for the period of five years from 2007 to 2011. The study employed a panel data approach in data collection and least square regression for data analyses. After controlling for variables Earnings per Share, Return on Equity, Retention Ratio, the results showed that dividend policy has a positive relation with Stock Prices and significantly explain the variations in the market prices of shares, while the Dividend Yield and Profit after Tax has negative, insignificant relation with stock prices. However, overall results indicated that Dividend Policy has a significant positive effect on Stock Prices.

Another Nigerian study from Ordu, *et al* (2014) investigated the effect of dividend payment on the market prices of shares in Nigeria using three indicators of dividend policies, namely, dividend per share, dividend yield and dividend payout ratio. The study employed panel data from 17 quoted firms covering 2000 to 2011. Three panel regression models were developed wherein dividend policy variables were the explanatory variable in each model while market price per shares was the dependent variable. The result from panel ordinary least squares techniques (OLS) indicated that a rise in dividend per share brings about an increase in the market price per share of quoted firms; that dividend yield does not have a significant positive effect on the market prices of shares of quoted firms in Nigeria; that there exists a direct relationship between market prices per share and dividend payout ratio of selected firms on the NSE. Thus it was concluded dividend decisions are

significant in explaining the observed differences in share market prices of quoted firms in Nigeria.

Similar to Ordu, *et al* (2014), a study by Adeleke and Obademi (2013) also showed that a positive relationship exists between the dividend policy mechanisms (DPS, PAYR, and EPS) and market price per share. The study, in essence, investigated the impact of dividend policy mechanisms on shareholder's value using 13 firms quoted on the Nigerian Stock Exchange (NSE) from the banking and oil industries from 2008 to 2012. The variables included dividend pay-out, dividend per share and earnings per share as the independent variables and Market price per share as the dependent variable analysed using panel methodology that is based on OLS estimation.

De Wet and Mpinda (2013) examined the impact of dividend payments on shareholders' wealth in South Africa. The study employed 46 firms listed on the Johannesburg Securities Exchange (JSE) for the period 1995 to 2010. With dividend yield and earnings per share as independent variables and market price per share is the dependent variable, the study analysed the data using the Vector Error Correction Model (VECM), Panel Least Squares Method. The result indicated that dividend yield is positively related to market price per share.

Pradhan (2014) used an event methodology to investigate the effect of dividend announcement on the share price of firms quoted in India spanning three years from 2009 to 2011. The Independent sample T-test is employed to compare price before and after the dividend announcement. The correlation between share price and Sensex is also analysed to discover whether a change in price is due to the change in the index. The change in price is also compared with the amount of dividend. The study result shows that there is a rise in price after result but that rise in price is mainly due to market conditions rather than a

dividend. The increase or decrease in share price is not reflecting the amount of dividend. The CAR is positive in the long run after dividend announcement.

Garba (2014) investigated the impact of dividend per share on common stock returns of the Manufacturing firms listed on the Nigerian Stock Exchange covering a thirteen year time period from 1991 to 2003. Using a common stock returns calculated on weekly basis and annualized using geometric means as dependent variables and actual dividend per share obtained from the annual reports and accounts of the sampled firms, multiple regression was used to find out the relationship between the dependent variable and the independent variable, while Pearson Moment Correlation was used in assessing the magnitude and direction of the relationships between the variables. The results revealed that there is a high correlation, and dividend per share has a significant impact on the common stock returns.

In another Pakistan study, from Aamir and Shah (2011), an event study was used to examine the impact of dividend announcement on stock prices using events of 26 announcements from firms in the cement and oil and gas sectors of Pakistan. These events were obtained from spotted periods of announcements between 2004 and 2008. The results from mean and t-statistics analyses revealed that dividend announcement depicts positive impact on share prices of the firms at the time of announcement as well as immediately after the announcements.

In the context of Oman, Bilal and Jamil (2015) examined the influence of dividend policy on stock prices of 28 industrial sector companies listed on Muscat Securities Market (MSM) during five year period of 2009 to 2013. A panel data approach was used to examine and explain the effect of dividend policy on stock market prices using five determinants dividend yield, retention ratio, earnings per share, return on shareholders' equity and net profit after tax. The finding from the fixed and random effect models

revealed a significant positive relationship between earnings per share, return on equity and stock price; whereas dividend yield and retention ratio are positively associated with the stock price but their influence was not statistically significant. Lastly, Profit after Tax has a negative relation with Stock Price and its impact is also not significant. The study concludes that in Omani, companies' dividend policy impacts the stock prices.

In the Nigerian context, Alayemi (2013) carried out a study to examine the relationship between dividend payment and share price spanning 2005 to 2009 for firms in the food and beverage sector of the Nigerian Stock Exchange. The dividend policy measures included in the study are dividend payment and earnings after tax while the share prices as measured by the share market prices. Results from multiple regression analysed showed that dividend payment had an insignificant positive effect on share price whereas profitability had a significant negative effect on share price and dividend payment.

In the context of Indonesia, Waworuntu and Claudy (2017) carried out a study to investigate the relationship between dividend policy and share price. Data were collected from the Indonesia Stock Exchange (IDX) for a sample of twenty firms making up a hundred observations from Kompas 100 Index spanning 2010 to 2014. The dividend policy was measured using the dividend payout ratios and dividend yield, with growth, firm's size and debt as the control variables. The results stepwise multiple regression analysis showed that dividend payout ratios and firm's size have a significant positive relationship with the share prices, whereas debt has a significant negative relationship to the share price. More so, it was observed that dividend yield and growth variables are of insignificant contribution to the share price.

Dada and Awoyemi (2015) examined the impact of dividend policy on share pricing of quoted companies in Nigeria. A structured Likert-type questionnaire was designed for data

collection. Findings from the chi-square analyses revealed that a balance between dividend payout and retained earnings would enhance the share price of a firm.

Another study in Indonesia by Yustisiana (2017) examined the relationship between dividend policy and shareholder's wealth from 37 quoted mining companies in the country from 2011 to 2013. Dividend per share and return on equity were the independent variables while the dependent variable is shareholder's wealth measured as market price per share. The effect of the investment opportunity was measured as fixed asset growth as a moderating variable. The result from multiple regression analysis revealed that dividend policy has significant influence to shareholder's wealth, while investment opportunity, as a moderating variable, is proven to strengthen the relationship between dividend policy and shareholder's wealth.

In the context of India, Nusrathunnisa and Duraipandian (2015) empirically examined the impact of dividend policy on shareholder's wealth in 10 listed banks out of the 12 Bank Nifty index constituent banks. The twelve-year data spanning 2003 to 2014 was analysed using descriptive statistics and multiple regression analysis. The study employed dividend per share (DPS), earnings per share (EPS), price earnings ratio (PER), retained earnings ratio (RR), lagged market price per share (LMPS), lagged price earnings ratio (LPER) as explanatory variables and market price per share (MPS) as response variable. The methodology involved both year-wise and firm-specific analysis was performed using multiple regression technique. The coefficient of determination shows that in year wise analysis, lagged market price per share (LMPS) and in bank wise analysis price-earnings ratio (PER) variables are highly influential on MPS. Further analysed showed that only EPS, PER and DPS are significant in the jointly significant relationship with shareholder wealth and dividend policy.

Thirumagal and Vasantha (2016) examined the impact of dividend policy on shareholders wealth using ten companies listed in NIFTY Pharma of NSE coving fifteen-year time period from 2001 to 2015. Market price per share is used to measure shareholders wealth while the independent variables are the Price Earnings Ratio (PER), Dividend Per Share (DPS), Earnings Per Share (EPS), Total Assets (TA) and, Cash and Bank Balance by Total Assets (CABBBYTA) were used by representing Dividend, Risk, Earnings, Firm Size and Liquidity of the companies. The Descriptive statistics and Normality test (Jarque Bera) test found that the data were normally distributed. The conditions for regression viz., Breusch-Pagan-Godfrey Heteroskedasticity Test, Breusch-Godfrey Serial Correlation LM Test, VIF for Multicollinearity, Augmented Dickey-Fuller test for unit root was used and found that the data were homogenous, free from autocorrelation, multicollinearity and unit root. Regression results show that the dividend, risk and liquidity of the companies impact shareholders wealth. Size and Earnings of the companies were insignificant with the shareholders' wealth.

Also in the context of Pakistan, Khan (2010) examined the impact of dividend policy on shareholders' wealth in the Textile sector of Pakistan from 2004 to 2008. Multiple regression method and stepwise regression models were used for data analyses. The independent variables employed in the study were dividend per share, retained earnings per share, lagged price earning ratio and lagged market price, while the market price per share was the dependent variable. The regression result found a significant impact of dividend policy on shareholders' wealth in Organic Chemical Companies, while the shareholders' wealth is not influenced by dividend payout as far as Inorganic Chemical Companies are concerned.

Ugvdd, Wan and Smrk (2015) adopted a sample of twelve companies listed under the manufacturing sector of the Colombo Stock Exchange from the year 2006 to 2014, to

examine the impact of dividend policy of a firm on the market value of stocks in Sri Lanka. The study adopted the natural log of market capitalisation as the dependent variable while dividend yield and dividend payout ratio were the independent variables after controlling for firm size and asset growth of the firm. The study adopted the panel data regression model for analysis. The results revealed that the dividend yield for the current and previous years has a negative and insignificant impact on the market value of the firm. Moreover, the dividend payout ratio of the current year has an insignificant positive impact while the previous year has an insignificant negative impact on market value. The study concludes that dividend policy does not have a significant impact on the market value of manufacturing firms in Sri Lanka.

In the case of Morocco, M'rabet and Boujjat (2016) used a selection of 44 listed firms quoted on the Casablanca Stock Exchange (CSE) within a five-year period from 2010 to 2014 to examine the relationship between dividend policies and financial performance vis-à-vis shareholders wealth. The model developed for this purpose regressed actual dividends paid and a total asset on the market capitalisation of the firms. Results from the panel regression analyses revealed that dividend paid and total assets have significant positive effects on market capitalisation (shareholders wealth) of the selected firms in Morocco.

Simon-Oke and Ologunwa (2016) evaluated the effect of dividend policy on corporate performance in Nigeria using three randomly selected firms (Unilever Nigeria Plc, First Bank of Nigeria Plc, and Royal Exchange Assurance Plc) quoted on the Nigeria Stock Exchange from 2005 to 2015. The study carried out a firm's specific regression analyses using the OLS techniques. The dependent variable is the market price per share while the explanatory variables are earnings per share, retained earnings per share, dividend per share and return on investment. The findings reveal that dividend per share and return on

investment had a significant positive effect on market price per share while earnings per share and retained earnings per share had an insignificant positive effect on market price per share. The study posited that dividend policy is a function of strong dynamic variables such as return on investment, earnings per share and dividend per share.

Sulaiman and Migiro (2015) investigated the effect of dividend decision on stock price using fifteen (15) firms from nine (9) sectors quoted on the Nigerian Stock Exchange for the period of 2003 to 2012. The stock price was used as dependent variable and firm size, earning per share and dividend per share used as independent variables. Results from the panel data regression analysis used for analyses showed that per-share earnings and per share dividend have a greater positive connection with the stock price. Findings also showed that the size of companies negatively insignificantly related to stock prices.

From the context of Malawi, Majanga (2015) investigated the association of stock prices and firm's dividend among thirteen local firms listed on Malawi Stock Exchange (MSE) for the period of seven years from 2008 to 2014. The results from correlation analysis were used for analyzing the data. The stock price was used as the dependent variable, while dividend payouts, retention ratio, per-share earnings, return on equity and after-tax profit were the independent variables in the study. Results of the study showed a significant positive relationship between stock prices and dividends.

Using a panel data from 111 non-financial firms quoted on the KSE in Pakistan, Arslan and Zaman (2014) investigated the impact of dividend yield and price earnings ratio on stock returns between 1998 and 2009. With three explanatory variables (Dividend yields ratio, price earnings ratio and total assets) and stock returns as the dependent variable, the fixed effect model was employed to discover that price earnings ratio and size of the firm have a significant positive impact on stock prices, while dividend yield had a significant negative

effect on stock prices. The findings advocate that investors can apply investment criteria that employ size of firm and price earnings ratio anomalies to earn an abnormal return, especially in Pakistan.

Using the residual income model developed by Ohlson (1995), Budagaga (2017) investigated the impact of dividend payments on the value of firms for a sample of 44 firms listed on the Istanbul Stock Exchange (ISE) for a period of nine (9) years spanning 2007 to 2015. The study used value per share for the firm as the proxy for firm value and an array of explanatory variables including book value of equity per share, current residual income (abnormal earning) per share, and cash dividends per share to measure dividend policy of the firms. The regression analysed based on the fixed effect model revealed a positive significant relationship between dividend payments and the value of firms, suggesting that dividends irrelevance hypothesis is invalid for firms quoted on the ISE.

2.3.2 Effect of dividend policy on firms' stock market price volatility

A considerable volume of empirical literature on dividend policy and stock market price volatility nexus could be assessed from the developing economies. Among them is the work of Lashgari and Ahmadi (2014) which examined the impact of dividend policy on share price volatility among 51 out of the 470 quoted firms on the Tehran Stock Exchange of Iran between 2007 and 2012. The results from the unit root test, the Chow test and Hausman test supported the use of the fixed effects model for data analyses. The multiple regression analyses revealed that the dividend payout ratio has a significantly negative effect on stock price volatility and asset growth rate has a significantly positive effect on stock price volatility. Father results indicated that leverage, earnings volatility and company size do not have a significant effect on stock price volatility.

In the context of Malaysia, Hashemijoo, Ardekani and Younesi (2012) examined the relationship between dividend policy and share price volatility using a sample of 84 consumer goods firms listed in Malaysian stock market between 2005 and 2010. The study employed dividend yield and dividend payout to measure dividend policy and include size, earnings volatility, leverage, debt and growth. At first, share price volatility was regressed on the key dividend policy variables using the multiple least squares regression, and then variants of models developed were regressed. The results indicated that a significant negative relationship between share price volatility with two main measurements of dividend policy (dividend yield and dividend payout). More so, a significant negative relationship was found between share price volatility and size. The study, however, concluded that dividend yield and size have the most impact on share price volatility amongst predictor variables.

In another Malaysian study, Zakaria, Muhammad and Zulkifli (2012) employed the least square regression method to examine the impact of dividend policy on the share price volatility of the Malaysian listed construction and material companies covering a period of six years from 2005 to 2009. The study employed the dividend yield and dividend payout ratio as measured for dividend policy and debt, firm size, investment growth and earnings' volatility as control variables. Results from regression analyses showed that there is a significant positive relationship between the dividend payout ratio of a firm and share price volatility, whereas dividend yield has an insignificant and negative relationship with the movement of stock prices. However, among the control variables, only firm size (FZ) and leverage (LEV) showed high correlation with the changes of the firm share prices. The larger the size of the company, the greater the company needs to face the volatility of share prices. The results show no significant influence between investment growth and earnings volatility on the changes in the firms' share prices.

With a sample of five textile firms quoted on Karachi Stock Exchange in Pakistan, Ullah, Saqib and Usman (2015) investigated the relationship between dividend payout and the stock price spanning from 2003 to 2008. The stock price was the dependent variable while the independent variable was the dividend payout ratio with the size of the firm, earnings volatility and growth as controlled variables. Multiple regression model employed for data analyses indicated that the dividend payout ratio was significantly affecting the stock price.

Okafor, *et al* (2011) carried out a study to examine the relationship between dividend policy and share price changes in the Nigerian stock market. The selected firms include four banks, two food and beverages and two brewing firms making up eight firms for a period of eight years from 1998 to 2005. A multiple regression model was employed to regress dividend yield and dividend payout ratio on share price changes. The findings showed that dividend yield showed a generally negative impact on share price risk, while the dividend payout ratio showed negative influences in some years and positive influences on others. The study supports that dividend policy largely has a negative effect on share price changes.

In the context of Jordan economy, Al-Shawawreh (2014) examined the relationship between dividend policy and share price volatility using a sample of 53 companies from four sectors in Jordanian stock market within a period of thirteen years from 2001 to 2013. The multivariate model developed to include two main measurements of dividend policy (dividend yield and payout) and a host of control variables including size, stock repurchase, and stock dividend. The empirical results of this study showed a significant negative relationship between share price volatility with dividend payout and a very weak positive relationship between dividend yield and share price volatility. Moreover, a significant positive relationship between share price volatility and size is also found. Based on this

findings, dividend payout and stock dividend, therefore, have the most impact on share price volatility amongst predictor variables.

Wodung (2014), in his thesis on Accounting and Finance, examined the impact of dividend policy on stock price volatility in Nigeria using panel data for 11-years period from 2002 to 2012 from thirteen firms. The Ordinary least square (OLS) technique was employed to regressed dividend yield and payout ratio and a couple of control variables on stock price volatility. The findings indicated that dividend policy measured (dividend yield and payout ratio) have a significant negative effect on stock price volatility whereas the control variables comprising size, and leverage had a significant positive effect on stock price volatility, and firm growth had an insignificant effect on stock price volatility.

In the Sri Lankan context, Jahfer and Mulafara (2016) carried out a study to examine the relationship between share price volatility and firm's dividend policy on the Sri Lankan stock market using a selection of non-financial companies listed in Colombo stock exchange for the period five years from 2009 to 2013. The study employed the correlation and OLS multivariate regression model. At first, the study regressed the relationship between stock price volatility (SPV) and dividend payout ratio (DPR) and dividend yield (DY); and then, in another model incorporated size, growth and leverage as the control variables. The results revealed that there is a significant positive relationship between stock and the DY of a firm in both models. DPR is insignificant but positively related to the movement of stock prices. Further, size is significantly negatively related to price volatility, suggesting that the larger the firm, the less volatile the stock price. Growth is weakly significantly but positively associated with SPV. Long-term debt is insignificantly related to price volatility. The study, however, posits that dividend policy is relevant in determining share price changes in the Colombo Stock Market.

In the context of Finland, Lindeman (2016) employed correlation analyses to examine the relationship between dividend policy and share price volatility among 99 firms across the sectors listed on Helsinki Stock Exchange covering a period of five years from 2010 to 2014. Findings from the Pearson Correlation Coefficient indicated that there is a negative correlation between dividend policy measures (yield & ratio) and share price volatility in Finland.

Irandoost, Hassanzadeh, and Salteh (2013) carried out a study to examine the effect of dividend policy on stock price volatility and investment decisions in Tehran. In the area of stock price volatility, it employed two types of volatility: short time and long time and then built two models on which it regressed explanatory variables of dividend policy on. The dividend policy variable was the dividend payout ratio. Other variables included were firm growth, financial leverage and firm size. The panel data were collected from 65 firms quoted on the Tehran Stock Exchange covering 2007 to 2012. With the help of correlation analysis method and multiple regressions, the findings indi¬cated that the dividend policy has a significant effect on stock price volatility in a short time; and no significant ef¬fect on stock price volatility in a long time.

Using a sample of twenty-six (26) quoted firms across the sectors in the Nigerian Stock Exchange, Ilaboya and Aggreh (2013) carried out a study to examine the relationship between dividend policy and share price volatility between 2004 and 2011. The study developed a model that captured share price volatility (P.vol) as the dependent variable, while dividend yield (Dyld) and dividend payout ratio (Payout) was the independent variable; firm size (size), long-term debt (Debt), earnings volatility (E.vol) and asset growth rate (AsGRt) were the control variables. The regression analysis was conducted using the pooled OLS and Panel EGLS. Findings indicated that dividend yield exerts a

positive and significant influence on share price volatility of firms while dividend payout exerts a negative and insignificant influence on share price volatility.

Egbeonu, *et al,* (2016) employed the cointegration model to investigate the relationship between dividend policy and share price volatility in the Nigerian capital market. The study covered a sample of 50 firms across all the sectors of the Nigerian Stock Exchange. The tools of analysed included multiple OLS regression, Granger causality test, Engle-Granger co-integration techniques and ARCH/GARCH. Findings revealed that dividend per share is highly significant and positively related to the share price volatility of the firm while earning per share is also highly significant but negative to share price volatility of firms. However, the dividend yield and payout ratio have negative but insignificant effects on stock price volatility. Based on this, the study concluded that dividend per share and earnings per share are the predominant variables influencing the share price volatility in the market.

Osundina, et al (2016) examined the impact of accounting information on stock price volatility of five (5) quoted manufacturing companies in Nigeria for a period of ten years from 2005 to 2014. The dependent variable was Stock Price Volatility while the variables of accounting information include Earnings per share, Price-Earnings ratio, Book value per share, and Dividend per share. The study used Ordinary Least Square method in which the Hausman test was applied to determine whether to employ the fixed or random effect model. The results of cross section fixed effect model show that accounting information has a strong positive significant impact on stock price volatility. Specifically, the results showed that dividend per share had a significant positive effect on stock price volatility.

Habib, Kiani and Khan (2012) examined the relationship between dividend policy and share price volatility in Pakistani stock market. The data collected from the non-financial

firms listed in Karachi Stock Exchange 100 index included stock price volatility were used as dependent variable. Other variables are two dividend policy measured (dividend yield and dividend Payout ratio) and total assets as size, earnings volatility, long-term debt, growth in assets, and a dummy of industry pattern as control variables. The cross-sectional regression is used to analyze the relationship of share price with dividend yield and payout ratio. The results of the dividend yield and share prices are positively related but the payout ratio is negatively related. The study concluded that dividend policy has an effect on the share price volatility in Pakistan and thus posited that the signalling effect is relevant in determining the share price volatility.

Also in Pakistan, Shah and Noreen (2016) investigated the linkage between dividend policy and stock price volatility of fifty (50) sample firms on Karachi Stock Exchange (KSE) from non-financial sectors for the period of eight years from 2005 to 2012. After controlling for firm size, assets growth, long-term debt, earnings volatility and earning per share, the dividend policy (dividend yield, dividend payout) was regressed on stock price volatility, the panel estimated generalized least squares methods were used for data analyses. The findings revealed a significant negative relationship between stock price volatility and dividend policy (dividend yield, dividend payout).

Ramadan (2013) investigated the influence of the dividend policy on the share price volatility for 77 Jordanian industrial firms listed at Amman Stock Exchange for a period of twelve years from 2000 to 2011. Descriptive analysis, correlation analysis and a cross-sectional time-series multiple least squares regression method was employed for data analysis. The findings revealed the significant negative effect of the dividend yield and dividend payout on the share price volatility. The study concluded that the dividend policy has an impact on price volatility, suggesting that duration effect and signalling theories are relevant in determining the share price volatility in the Jordanian equity market.

Kamyabi and Nazemi (2014) studied the relationship between dividend policy and stock price volatility in Iran. They employed a five-year panel data covering 2008 till 2012 from 73 non-financial firms listed on Tehran stock exchange and analysed the data using the multivariable regression model. The findings showed that dividend yield, dividend payout and firm size had a positive and significant relationship with stock price volatility in firms quoted on the Tehran stock exchange. More so, firm growth had a significant negative effect on stock price volatility whereas debt and earnings volatility (both positive) did not have an effect on price volatility. The study concludes that dividend policy has an effect on stock price volatility in Iran.

Sadiq, et al (2013) carried out a study to analyse the effect of dividend policy on the stock price volatility of 35 selected non-financial firms listed on Karachi Stock Exchange in Iran. The data were obtained for a time frame covering 2001 to 2011. The study used dividend yield as dividend policy measure and size, growth, earning per share and earnings volatility as control variables. The multiple regression results showed that the price volatility of stocks has a negative relationship with dividend yield and earnings per share. Further results identified a positive relationship between price volatility with size and growth in assets of firms; and no relationship between price volatility and earning volatility of firms in Pakistan.

In Kenya, Kenyoru, et al (2013) used an array of carried out a study that sought to determine the impact of dividend policy on share price volatility. They used stock price volatility as dependent variables and two measure of dividend policy (dividend yield and dividend payout ratio) as explanatory variables obtained from the actively trading companies listed in the Nairobi Securities Exchange (NSE) for a period of ten (10) years from 1999 – 2008. The multiple regression analysis revealed that dividend is the major

determinants of share price volatility in NSE. It further showed that dividend yield positively affect share price volatility, while the payout ratio has a negative effect on share price volatility.

In Pakistan, Javed and Ullah (2014) examine the relationship between price volatility and the dividend policy of manufacturing firms listed in Karachi Stock Exchange (KSE) using a sample of 53 manufacturing firms obtained for a period of six (6) years from 2006 to 2011. The regression model was used to find out the relationship between the dependent variable (price volatility) as it relates with independent variables such as dividend yield, net income, dividend payout ratio, Tobin's Q, return on equity, size and debt equity. The result shows that dividend yield and firm size show a considerable positive impact on price volatility. However, dividend payout ratio, Tobin's Q and net income have a significantly negative impact on price volatility shows in our study.

In Malaysia, Hooi, Albaity and Ibrahimy (2015) examined the relationship between dividend policy and share price volatility in the Malaysian market with a sample of 319 companies from Kuala Lumpur Stock Exchange. Results from OLS regression analyses revealed that dividend yield and dividend payout were negatively and significantly related to share price volatility. Also, firm size and share price were negatively related. Further, positive and statistically significant relationships between earning volatility and long-term debt to price volatility were identified whereas no significant relationship was found between growth in assets and price volatility. The study concludes that dividend policy has a significant negative effect on stock price volatility in the Malaysian market.

Profilet and Bacon (2013) employed the financial data of 599 firms taken from the Value Line Investment Survey Database to examine the impact of financial variables on the volatility of stock's price. The study used a given stock's standard deviation as the

dependent variable to represent the stock's volatility. Independent variables tested include dividend yield, payout ratio, size, leverage, and growth. Results from Ordinary Least Squares (OLS) Regression revealed that dividend yield, leverage and growth and size related negatively to the stock's price volatility. In addition, the payout ratio was found to have a positive relationship with the stock price volatility.

In India, Anwar, Singh and Jain (2015) used an event window covering a period of ten years from 1st April 2003 to 31st March 2013 for a sample of 385 companies to examine the effect of cash dividend announcements on stock returns volatility. The event window examined was 31 days, that is, 15 days prior to the announcement date to 15 days after the announcement date along with the announcement day itself. The short-run and long-run effects were analysed using mean and t-statistics. The results provided strong support for 'Signalling' and 'Risk Information' hypotheses conveying that the volatility of stock returns increased post cash dividend announcement due to decline in firm's risk, but no significant results were reported for stock returns volatility due to dividend announcements.

Shafai (2012) examined the relationship between dividend policies and share price volatility using 841 firms listed on the Bursa Malaysia Main Board involving all the sectors in Malaysia from 2001 to 2010. The study specifically explored the influence of dividend payout, dividend yield, size, earnings volatility, long-term debt and growth in assets on share price changes in the long run. Results from the multivariate regression analysis showed that dividend yield, dividend payout, size, earnings volatility, long-term debt of all firms sampled have a significant impact on the dividend policy and share price volatility. On the other hand, growth in the asset is insignificant with the share price volatility.

With a sample of thirty (30) companies that paid dividends continuously for the five year period from 2008 to 2012, Onsomu and Onchiri (2014) examined the relationship between

dividend policy and share price volatility in Kenya. The study employed correlation cross-sectional descriptive research design to deduce the relationship between dividend policy (measured by dividend yield and payout ratio) and share price volatility after controlling for long-term debt, firm size and growth in assets. The study used the multiple linear regression model, and from the analysis of the basic model, there was no evidence of a significant relationship between dividend policy and share price volatility. After modifying the model to include the control variables, the result remained unchanged at 5% level of significance. None of the control variables used had a significant relationship with share price volatility. The findings of the basic regression model showed that dividend yield and payout ratio only accounted for 5.5% of the variations in stock price volatility while from the modified regression model, it was found that independent variables (dividend yield, payout ratio, long-term debt, firm size and growth in assets) accounted for 20.8% of the variations on stock price volatility.

Within the Sri Lankan context, Ugvdd, et al (2015) investigated the impact of dividend policy of a firm on the volatility of the market value of stocks using a sample of twelve companies listed under the manufacturing sector of the Colombo Stock Exchange from the year 2006 to 2014. The study adopted stock price volatility as the dependent variable while, dividend yield and dividend payout ratio were the independent variables after controlling for firm size and asset growth of the firms. The study adopted the panel data regression model for analysis. The empirical evidence revealed a negative impact of a dividend yield of the current year on stock price volatility, but this relationship is not statistically significant. Dividend payout ratio for both current and previous year has shown a positive insignificant relationship with share price volatility. Further results revealed that share price volatility has a significant positive relationship with size and insignificant positive relationship with asset growth.

Nishat and Irfan (2006) was a study that used a sample of 160 listed companies in Karachi Stock Exchange to determine the impact of dividend policy on stock price risk in Pakistan between 1981 and 2000. The empirical estimation is based on a cross-sectional regression analysis of the relationship between stock price volatility and dividend policy after controlling for firm size, earnings volatility, leverage and asset growth. The time periods were divided into eras: 1981 to 1990 for pre-reform and 1991 to 2000 for reform periods; and a dummy of the industry was used to capture the sectors (industry) effects on the dividend policy and stock price volatility nexus. Correlation and regression analyses were applied to obtain results which showed that both dividend policy measures (dividend yield and payout ratio) have a significant impact on the share price volatility. The relationship is not reduced much even after controlling for the above-mentioned factors. The study posited that dividend policy affects stock price volatility and thus supported the arbitrage realization effect, duration effect and information effect in Pakistan. The responsiveness of the dividend yield to stock price volatility increased during the reform period (1991-2000). Whereas payout ratio measure is having a significant impact only at the lower level of significance. In the overall period, size and leverage have a positive and significant impact on stock price volatility. The size effect is negative during the pre-reform period (1981-1990) but positive during the reform period. The earning volatility impact is negative and significant only during the reform period.

Dewasiri and Banda (2015) carried out a study to investigate the relationship between dividend policy and stock price volatility in the Sri Lankan context. Based on the Hausman test results, the cross-section random effect model (CSREM) was chosen for model estimation, while the Granger causality test was employed to test the short-term relationship between stock price volatility and dividend policy variables. The results from CSREM test revealed that there is a significant negative impact from dividend payout, a

significant positive impact from company size and no evidence of a significant impact from dividend yield on stock price volatility. Furthermore, Granger causality tests revealed that there is no short-term impact from dividend payout on stock price volatility. It is also reported that a unidirectional causality exists from dividend yield to stock price volatility in any lag level. The study concluded that dividend policy influences stock price volatility.

In Nigeria, Ajayi and Seyingbo (2015) examined the effect of dividend policy on share price volatility covering two categories of Nigerian banks that declared a dividend and those that retained their earnings between 2008 and 2013. Three firms were randomly selected for each category, and panel data analysis was employed for data analyses. The result for firms that declare dividend shows that there is a positive relationship between dividend payout ratio, earnings per share, size of the bank and share price volatility, while there exists a negative relationship between earnings volatility and share price volatility. Also, the result for the firms that retained their earnings shows that there is a negative relationship between retained earnings, earnings volatility and share price volatility as well as a positive relationship between earnings per share, size of the bank and share price volatility. The study concluded that declaration of dividend by banks causes more volatility in share price movement while retained earnings cause less volatility in share price movement of banks in Nigeria.

In the context of Indonesia, Christina (2016) employed data from 330 firms publicly listed in Indonesia Stock Exchange (IDX) that paid a dividend to its shareholders each year within period 2012 to 2014, to explore the association between dividend policy and price volatility. As a proxy for risk, share price changes was used as the dependent variable while dividend yield, payout ratio, long-term debt were the explanatory variables. The multiple regression analyses that used model estimation revealed that a positive relation was found between dividend yield and share price changes, and a negative relation between dividend

payout ratio and share price changes. In addition, it is shown that long-term debt also explains share price changes. The study, however, supported that dividend policy is relevant in determining share price changes.

In the work of Nazir, Abdullah and Nawaz (2011) that examined effect of dividend policy on share price volatility among 75 financial sector listed firms in Karachi securities exchange, it was argued that firm dividend policy is most important for both investors and management since share price volatility has a significant influence on organization risk levels. In addition to the dividend policy, the study controlled the effects of earnings volatility, assets growth, firm size and leverage. Multi-linear regression analysis was used whereby the study applied fixed effects regression modelling. Results indicated that there was a significant negative relationship between dividend yield and price volatility as well as between dividend payout and price volatility. The study concluded that the dividend policy adopted by firms in the financial sector had a significant influence on share price volatility.

Abrar-ul-haq, Akram and Ullah (2015) also examined the impact of dividend policy on stock price volatility in Pakistan using a stratified sample of eleven companies from major non-financial sectors including Food, Textile, Oil and Gas, Construction and Materials, Fixed line Telecommunication and Tobacco in their respective sectors with respect to market capitalization, listed on KSE-100 index within the time frame of fourteen years from 2001 to 2014.The study employed Price Volatility as the dependent variable while dividend yield and dividend payout ratio were the independent variables and proxies for dividend policy after controlling for firm size, earnings volatility, growth in assets. Correlation and regression analyses were used for data analyses. The results showed that dividend yield had a significant negative effect on price volatility while dividend payout ratio, firm size, earnings volatility and growth in assets all have a positive and significant

effect on price volatility. The study concluded that dividend policy is a determining factor for price volatility of firms in Pakistan.

Salari, Abbasian and Pakizeh (2014) carried out a study to determine the impact of dividend policy on stock price volatility in Iran with a sample of 68 listed companies from Tehran stock exchange for a period of twelve years from 2001 to 2012. The study employed cross-sectional ordinary least squares regression analysis using share price volatility as dependent variables and dividend policy measures (dividend payout ratio and dividend yield) as independent variables after controlling for size, earnings volatility, debt and growth. The findings revealed that the two proxies for dividend policy (dividend payout ratio and dividend yield) have a significant negative relationship with share price volatility while size and debt of the firms had a positive relationship between price volatility. However, earnings volatility and firm growth do not have a significant effect on stock price volatility and earnings volatility. The study thus concluded that dividend policy has a significant positive effect on share price volatility in Iran.

In Zimbabwean, Jecheche (2012) investigated the impact of dividend policy on stock price risk using a sample of 60 quoted firms in Zimbabwe Stock Exchange within a period of eleven years covering 2001 to 2011. The time frame was divided into pre-Multiple Currency Period (2001-2008) and Multiple Currency Period (2009-2011). The cross-sectional regression model was developed to regress dividend policy on stock price volatility after controlling for firm size, earnings volatility, leverage and asset growth. The study found that both dividend policy measures (dividend yield and payout ratio) have a significant impact on the share price volatility, and this relationship did not reduce significantly even after controlling for other factors. Further analyses showed that the responsiveness of dividend yield to stock price volatility increased during the Multiple

Currency periods (2009-2011), whereas the payout ratio measure had a significant impact only at the lower level of significance.

In the context of Bangladesh, Rashid and Rahman (2008) employed the cross-sectional regression analysis to examine the relationship between the stock price volatility and dividend policy after controlling for earnings volatility, payout ratio, debt, firm size and growth in assets. With a sample of 104 non-financial firms listed on the Dhaka Stock Exchange, the panel data covered a period of eight years from 1999 to 2006. The dummy of the selected industries covered five broad categories including Engineering, Food and Allied, Pharmaceuticals and Chemicals, Textile and Miscellaneous industries. The findings from the study revealed that dividend yield had a positive, but the non-significant relationship with stock price volatility both in the controlled model and in the dummy model. However, dividend payout was negative all through but became statistically significant at the introduction of industry dummy. The study, however, posited that dividend policy does not have a strong signalling effect on stock price volatility in Bangladesh.

2.3.3 Effect of dividend policy on firms' stock liquidity
Most studies that had examined the effect of dividend policy on firms stock liquidity was carried out in the developed and emerging economies.

In the work of Griffin (2010), the relationship between the liquidity of a firm's stock and the dividends paid was investigated for the international markets of Canada (Toronto Stock Exchange), Australia (ASX), Mexico (Bolsa de Valores), Brazil (Bovespa), Argentina (Merval), Hong Kong (HKE) and the United Kingdom (FTSE 100). The time frame covered 1988 to 2006 on the average. The study used share turnover as the independent variable and dividends per share as the dependent variable. The selected firms were

grouped first by Market Capitalization and then by Earnings per Share to isolate any effect that these characteristics may have. The results from regression analyses revealed an inverse relationship between stock liquidity and the dividend amount paid. This implies that dividends payment have a positive influence on lower stock liquidity.

Banerjee, *et al* (2005) examined the link between firm dividend policy and stock market liquidity among firms quoted on the NYSE and AMEX from 1963 to 2003. The sample consisted of all firms for which they obtained data for earnings-to-assets ratio, the market capitalization, the market-to-book ratio, the growth in assets from the previous year, and share turnover for the periods subdivided into (1963-1977, 1978-1992, and 1993-2003). The study employed several measures of liquidity including annual share turnover (the ratio of shares traded to shares outstanding), annual traded dollar volume in the stock and the proportion of days with zero traded volume as an inverse measure of trading activity as well as the illiquidity ratio. The results were obtained using cross-sectional regression and univariate analyses. These results revealed that there is a significant negative relationship between a firm's stock market liquidity and its likelihood to pay dividends, even after controlling for firms characteristics. The study thus posited that firms that initiate dividend payments reduce the sensitivity of their returns to aggregate liquidity.

Gul, Lai, Saffar and Zhu (2015) examined the relationship between firm dividend policy and stock market liquidity in 254,885 firms from 52 countries between 1992 and 2012. The sample was mainly dominated by firms from the U.S. (25.14%), Japan (14.99%), UK (7.20%), Australia (5.50%), and China (5.47%) while the other countries accounted for fewer than 5% of the sample number of observations. The model used dividend payment as dependent variable factored in different development levels and legal, political and institutional environments. Results from regression analyses showed that the negative

relationship between dividend and liquidity is stronger for firms in countries with high political constraints (sound political institutions).

Igan, Paula and Pinheiro (2010) investigated the relationship between the payout policy of a firm and its stocks liquidity for NYSE, AMEX and NASDAQ securities. The study was delineated into dividend paying and non-paying firms with sub-periods covering 1963-1977, 1978-1992, 1993-2003 incorporating four measures of liquidity (spread, volume, the proportion of days without a price change, and the price impact of order flow). The OLS regression conducted revealed a number of findings including that dividend-paying firms have a more liquid market whereas non-payers are more volatile. Further results showed that investment has a positive relationship with adverse selection costs. In addition, liquidity was found to be positively related to the propensity to pay dividends, while liquidity and dividends have stronger relationships for firms with stronger shareholder power. The study, therefore, posited that dividend payment influences stock liquidity. It proffered that the mechanism that could explain the chain of these influences is as follows: "by distributing cash, the firm reduces its chances of exploiting investment opportunities as funds for internal financing are used up, which decreases the volatility of stock returns and adverse selection costs faced by liquidity-constrained shareholders, leading to more liquid markets for the firm's stock.

Michaely and Qian (2017) employed the empirical model to substantiate the hypothesis that investors' liquidity needs are important reason firms pay dividends. The study specifically examined the impact of stock liquidity on dividend policy using the quasi-natural experiment on a sample of 1,834 nonfinancial firms quoted on the Shanghai and Shenzhen Stock Exchanges from 2000 to 2012. The variables employed were the cross-sectional differences in firm shareholders' liquidity demand, post-reform market liquidity, and post-reform trading in order to distinguish the liquidity motive from other possible

motives. The findings from regression analyses showed that firms reduce dividend payments when stock liquidity increases.

With the help of the Morgan table and stratified random sampling method, Ghodrati and Fini (2014) carried out a study to examine the relationship between dividend policy and shares liquidity under different criteria on 80 selected firms listed on Tehran Stock Exchange over the period 2007-2011. Various measures of share liquidity tested for include Amivest, turnover, Gopalan and cash flow. The study used regression as well as mean, variance, standard deviation and classified and simplified table and graphic charts, for data analyses. The results showed that there was no significant association between dividend policy and Amivest liquidity; flow and Gopalan liquidity have a direct and significant relationship with dividend policy; while turnover liquidity has a significant and negative relationship with dividend policy. The study thus posited that dividend policy and stock liquidity are related.

In another Iranian study, Seyedkkhosroshahi, *et al* (2013) employed the regression technique to investigate the relationship between turnover and the amount of dividend payout after controlling for firm characteristics including size, profitability and growth opportunities. The panel data collected from 145 firms quoted in the Tehran Stock Exchange from 2005 to 2011 was used to perform a fixed and random effect regression analysis. The findings revealed that stock turnover rate was not related to the amount of dividend.

In Jordan, Alnaif (2015) examined the factors affecting stocks liquidity of selected 100 firms quoted on the Amman Stock Exchange (ASE) within the period of three years from 2011 to 2013. The model considered market capitalisation (MC) as a proxy for firm's size, return on asset (ROA) as a proxy firm's profitability, earnings per share (EPS), stock

dividend (DPS), and a leverage ratio (LEV) as determinants of stock liquidity. However, stock liquidity was measured using the natural logarithm of value traded (SVT) and the natural logarithm of a number of traded shares (NTS). The regression result was based on the fixed effect model which revealed that firm's size and earnings per share (EPS) have a significant positive impact on stock liquidity proxies, whereas firm's profitability has a significant negative impact. Moreover, stock dividends did not have a significant effect on a firm's liquidity ratio.

2.3.4 Effect of dividend policy on firm profitability

An ample of empirical literature abounds on the effect of dividend policy on firm profitability in almost all developing, emerging and developed economies. These studies have attempted to explain the relationship between dividend policy (as the independent variable) and firm profitability (as the dependent variable). Among the studies in this realm of study are the works of Enekwe, *et al* (2015) which examined the effect of effect of dividend payout on performance evaluation of quoted cement companies in Nigeria over the past twelve (12) years period from 2003 to 2014. Three models were developed in which performance evaluation as the dependent variable was represented by Return on Capital Employed (ROCE); Return on Assets (ROA) and Return on Equity (ROE) while Dividend Payout stands as Dividend Payout Ratio (DPR) for the independent variable. A panel estimation based on simple linear regression was used for data analyses. The results showed that DPR has a positive relationship with all the dependent variables (ROCE, ROA and ROE) used for this study as well as statistically significant with ROCE and ROA but statistically insignificant with ROE of quoted cement companies in Nigeria.

Abiola (2014) employed a survey design to examine the effects of dividend policy on the profits and growth of banking firms in Nigeria. A structured questionnaire was administrated to employees of Eco Bank Plc. Three hypotheses were formulated and tested

using chi-square statistical tool. The findings revealed that dividend policy is a strategic tool for growth in the banking industry, and dividend payout has an impact in the wealth maximization in the banking industry. It also revealed that there is a significant relationship between the dividend policy and profitability in the banking industry.

Khan, Anuar, Ramakrishnan and Malik (2015) explored the effect of Dividend payout ratio on the firm profitability in Pakistan. A sample of 48 non-financial firms listed in Karachi Stock Exchange (KSE) 100 index. The data were collected since 2008-2012 from the annual reports and Balance sheet analysis of the State Bank of Pakistan (SBP). The study developed the model using return on assets as dependent variables while dividend payout, leverage, and firm size were the independent variables. Panel data regression based on the fixed effect model showed that the dividend payout ratio has significant effects on profitability. Leverage has an insignificant effect on the profitability and firm size also has insignificant effects on the firm profitability.

Thafani and Abdullah (2014) investigated the impact of dividend payout on corporate profitability in the Manufacturing Companies listed on the Colombo Stock Exchange in Sri Lanka. With the help of data extracted from the annual reports of the selected companies during the period from 2007 to 2011, a regression model was used to study and estimate the relationship between dividend payout and corporate profitability. The explanatory variables were the dividend payout ratio, the natural logarithm of total assets (size) and firm growth measured as the difference between the current year sales and previous year sales divided by previous year sales. Three models were developed using three dependent variables proxied on corporate profitability. These variables include return on asset, return on equity and earnings per share. The results of the study revealed that there was a significant relationship between dividend payout and corporate profitability in terms of return on assets, return on equity and earnings per share. A positive significant relation is found

between dividend payout and return on assets and return on equity for the whole sample, while the significant negative relationship is found between dividend payout and earnings per share as far as the dividend paying sample is concerned.

Akani and Sweneme (2016) examined the impact of dividend policy on the profitability of selected quoted manufacturing firms in Nigeria from 1981 – 2014. Return on Investment and Net Profit Margin were modelled as dependent variables while dividend payout ratio, retention ratio, dividend yield and earnings per share were the independent variables of the study. Multiple regressions results revealed that dividend payout ratio, retention ratio have positive but insignificant effect while earnings per share had a significant positive effect on firm profitability. However, dividend yield had an insignificant negative effect on firm profitability.

Hasan, Ahmad, Rafiq and Rehman (2015) investigated the relationship between dividend payout ratio and profitability using energy and textile sectors of Pakistan for the period of 1996 to 2008. Two simple linear models were developed using firm performance measured by earning per share (EPS) and return on assets (ROA) as the dependent variable, while the independent variable was the dividend payout ratio. The results of logarithmic regression show that no matter what the industry is, there is a negative impact of dividend payout ratio on next year earnings of a firm.

Ehikioya (2015) investigated the impact of dividend policy on the value and performance of firms in developing economies using data sample drawn from 81 firms listed on the Nigeria Stock Exchange during the period 2001 to 2010. Two multiple regression models were developed using Return on Assets, and Return on Equity as the dependent variable. The explanatory variables were the dividend payout ratio, firm size, total leverage, dividend policy, firms code of corporate governance, firm age and industry dummies. The

study employed panel data analysis structured on the Ordinary Least Squares (OLS) regression method. The findings revealed a significant positive impact of dividend payout on the performance of firms, measured as return on assets and return on equity. Also, the analysis revealed that the firm's dividend policy has a significant positive correlation with the firm's profitability as measured with return on assets.

Ebiringa, *et al* (2014) aimed to establish whether dividend policy is relevant to firm profitability. A combination of Ordinary Least Square (OLS) and Vector Autoregressive (VAR) model was used in analyzing short and long-run relationships between dividend policy of firms quoted in the Nigerian Stock Exchange and their profitability. The regression model was developed to reflect net profit after tax as a function of dividend payout, capitalized dividend and revenue. The results show that capitalized dividend has a significant positive effect on profitability in the short run, while dividend payout has significant positive effect in the long run.

Kajola and Adewumi (2016) examined the relationship between dividend payout policy and financial performance of twenty-five non-financial firms listed on the Nigerian Stock Exchange between 2004 and 2013. Panel data methodology was employed and pooled Ordinary Least Squares (OLS) was used to estimate the coefficients of explanatory and control variables. The Return on Assets (ROA) was the dependent variable as a proxy for profitability, while Dividend Pay-out ratio represented dividend policy as the only explanatory variable. The control variables were the firm's size, asset tangibility and leverage. Result reveals a positive and significant relationship between dividend payout policy and firm performance.

Using secondary data from Oando Plc, Abdul and Muhibudeen (2015) examined the relationship between dividend payout and firm's performance in the Oil sector in Nigeria

from 1999 to 2013. Dividend payout ratio was considered as the dependent variable while profitability (profit before interest and tax divided by capital employed) is treated as an independent variable. Regression and analysis of variance were used to analyse the data. The findings indicated that a significant relationship between dividend payout and firm's performance exists. The study concluded that dividend payout is a significant factor affecting a firm's performance.

Osamwonyi and Lola-Ebueku (2016) examined the effect of dividend policy on firm's returns using data of seventeen (17) manufacturing firms listed on the Nigerian Stock Exchange. The multiple regression model was developed while earnings per share were reflected as a function of current dividend payout, one period lagged dividend payout, dividend per share, Cash flow, Growth Opportunity, size of the firm, and leverage as the ratio of total debt to total capital. Employing descriptive statistics, correlation analysis and panel regression technique, where the fixed effect regression was adopted, the findings reveal that current dividend payout, growth opportunity of firms and dividend per share, all have a positive and significant effect on earnings per share, with that of growth having an overwhelming influence. Current dividend payout and dividend per share are both significant at the 5 per cent level. One lagged dividend payout (previous dividend payout), cash flow and leverage have a positive but not significant influence on EPS, while the impact of size is negative and not significant.

Oyinlola, *et al* (2014) examined the impact of dividend policy on the performance of firms in the brewery industry in Nigeria between 2002 and 2010. Two models were developed. In the first model, a simple model was used to regress dividend per share (DPS) on earnings per share (EPS), whereas the second model introduced investment into the first model to form a multiple regression with DPS and firms' investment (INV) as explanatory variables of firm profitability (EPS). The models were analysed using descriptive statistics,

correlation analysis and regression analysis. Findings reveal that dividend policy has a significantly positive effect on firm performance.

In Ghana, Amidu (2007) examined the influence of dividend policy on the performance of firms listed on the Ghana Stock Exchange (GSE) with a period of eight years from 1997 to 2004. The study employed three measure of performance such as Return on Assets (ROA) and Return on Equity (ROE) and Tobin's Q as the dependent variables. The explanatory variables include dividend policy (POLICY) and the payout ratio (PAY), firm size (SIZE) firm's leverage (LEV) and Growth in sales (GROWTH). Ordinary Least Squares model is used to estimate the regression equation. In order to operationalize dividend policy, the study coded '1' to represent the company has the policy to pay dividend and '0' to represent the company has a policy not to pay dividends. The results show positive relationships between return on assets, dividend policy, and growth in sales. Surprisingly, the study reveals that bigger firms on the GSE perform less with respect to return on assets. The results also reveal negative associations between return on equity and dividend payout ratio and leverage.

Murekefu and Ouma (2014) sought to establish the relationship between dividend payout and firm performance among listed firms in the Nairobi Securities Exchange from 2002 to 2010. The dependent variable is Net Profit after Tax while the explanatory variables are actual dividends paid, total assets and revenue. The findings from regression analyses indicated that dividend payout was a major factor affecting firm performance with a strong and positive effect.

Ajanthan (2013) examined the relationship between dividend payout and firm profitability among sixteen listed hotels and restaurants in the Colombo Stock Exchange (CSE). A model was developed to reflect that Net Profit (NPT) is a function of Dividend Payout

(DIVP), Revenue (RVN) and Total Assets (TA). Regression and correlation analysis was carried out to establish the relationship between dividend payout and firm profitability. The findings indicated that dividend payout has a strong positive effect on firm performance.

Khan, *et al* (2016) examined the effect of dividend policy on the performance of selected Pakistan firms listed on the stock exchange within a period of five years from 2010 to 2015. The study developed three models using return on assets, return on equity and Tobin's Q as dependent variables regressed on the ratio of market value of assets to book value of assets, dividend per share divided by earning per share, a dummy of dividend policy, Size, leverage, and sales growth. The results were obtained from panel OLS technique. Findings revealed that dividend policy was positive for ROA and ROE and negative for Tobin's Q whereas dividend payout ratio was negative for ROA and ROE and positive for Tobin's Q. This suggests that dividend policy had a conflicting effect on firm profitability indices.

Similar to the above, Priya and Nimalathasan (2013) employed annual reports of selected hotels and restaurants in Sri Lanka from 2008 to 2012 to examine the effect of dividend policy ratios on firm performance. The study built two regression models involving Return on Asset and Return on Equity as dependent variables. The explanatory variables to the two models were Earnings Per Share, Price to Earnings Ratio, Price/Book Value Ratio/ the results from Correlation and multiple regression analysis showed that all the variables of dividend policy have a significant correlation with firm performance variables. Further findings showed that dividend policy ratios do not have a significant effect on firm performance.

In Morocco, M'rabet and Boujjat (2016) carried out a panel study involving 44 firms listed on the Casablanca Stock Exchange (CSE) within a five-year period from 2010 to 2014 on

the relationship between dividend policies and financial performance. One of the two models developed for the study employed profit after tax to measure profitability as the dependent variable. The explanatory variables were actual dividends paid and total asset. Results from the panel regression analyses revealed that dividend paid and total assets have significant positive effects on profitability of the selected firms in Morocco.

Elmi and Muturi (2016) employed the descriptive research design to examine the effect of profitability on dividend payout by commercial and services firms listed in the Nairobi Securities Exchange (NSE), Kenya as at 31st December 2015. Both primary and secondary data were employed covering 10 commercial banks for 10 years (2005 – 2014). The study applied descriptive statistics and panel data analysis model. The study used panel data analysis and applied the fixed effects model. The study showed that profitability was an insignificant factor in determining dividend payout.

Yegon, Cheruiyot and Sang (2014) aimed to ascertain the relationship between dividend policy and the firm's profitability, investment and earnings per shares for quoted manufacturing companies in Kenya. The study used cross-sectional data from nine firms collected from the financial statement and annual report for 2013. The OLS regression showed that there is a significant positive relationship between dividend policies of the firms and their profitability; there is also a significant positive relationship between dividend policy and investments and there is a significant positive relationship between dividend policy and earnings per share.

Further to the above, Eniola and Akinselure (2016) employed 25 quoted companies in Nigeria to investigate the relationship between earning per share and dividend policies. The data covered a time frame from 2004 to 2013. Two simple regression models were developed using two dependent variables as Dividend yield ratio and Dividend payout ratio

respectively; and earnings per share as the independent variable. The result of the Ordinary Least Square (OLS) regression analysis carried out showed a significant relationship between dividend and firm profitability in Nigeria.

Ashamu, *et al* (2008) carried out a study to examine the effect of dividend policy on the value of firms using a selection of five publicly quoted Nigerian banks with a time frame of twenty-one (21) years from 1988 to 2008. Two simple regression models were developed using change in payout ratio (POR) as an explanatory variable and two dependent variables being profit after tax (PAT) and earnings per share (EPS). The Ordinary Least Square regression technique was employed and the results indicated that dividend payout has a significant positive effect on both profit after tax and earnings per share. The study thus posited that dividend policy has a significant positive effect on firm profitability.

Garba (2014) investigated the impact of dividend per share on common stock returns of some randomly selected ten (10) manufacturing firms listed on the Nigerian Stock Exchange (NSE) within a period of 13-years from 1991 to 2003. The study employed both linear and quadratic polynomials models. Linear regression was used to study the relationship between the dependent variable and the independent variable of the study. However, Pearson Moment Correlation was used to assess the magnitude and the direction of the relationships between the variables of the study. The Pearson Correlation Coefficient was found to be 0.735, which is highly significant. The regression analysis indicated that dividend-per-share has a significant impact on the common stock returns.

In the context of Kenya, Kiuru (2014) carried out a thesis that investigated the relationship between dividend payout and firm performance among 28 listed companies on Nairobi Stock Exchange (NSE) for the period of seven years, from 2006 to 2012. Correlation and regression analysis were used for data analyses. The results showed that there was a

significant positive relationship between net profit after tax and total assets, revenues and dividends. The study thus concluded that dividend policy has a significant effect on firm performance.

Malombe (2011) in her thesis examined the effects of dividend policy on profitability using a sample of thirty (30) Savings and Credit Cooperative Society (SACCOs) that owns Front Office Savings Account (FOSAs) in Kenya. The dependent variable was return on equity as a measure of profitability, while the independent variables are dividend yield and dividend payout ratio as measures of firm dividend policy. The data obtained from the financial statements of the SACCOs covered a period of five years from 2006 to 2010. The study conducted a cross-sectional OLS multiple regression on a yearly bases. The regression results for the five years showed that dividend policy (dividend yield and dividend payout) affects the profitability of SACCOs, either positively or negatively over the period under study. The study also found that the coefficient of SACCOs dividend yield varied from positive to negative. The study equally found that the companies' dividend payout varied in value although it was positive in most cases except for 2009. The study concluded that there is a positive relationship between dividend policy and the profitability of SACCOs with FOSAs in Kenya.

In another Nigerian study, Turakpe and Fiiwe (2017) examined the effect of dividend policy on corporate performance. The study adopted multiple regression models to examine the selected companies namely Nigerian Breweries Plc, Zenith Bank Nigeria Plc and Guaranty Trust Bank Plc from 2011-2015. The result of the analysis showed that for Nigerian Breweries, profit after tax and return on asset are positively related to dividend while earnings per share have a negative relationship with the dividend. The result for Zenith Bank shows that earnings per share and return on asset are positively related to dividend while profit after tax has a negative relationship with the dividend. The result for

Guaranty Trust Bank shows that profit after tax has a positive relationship with dividend while earnings per share and return on asset are negatively related to the dividend. Based on the findings, the study concluded that dividend policy is a significant factor affecting corporate performance.

Agyei and Marfo-Yiadom (2011) carried out a study that assessed the relationship between dividend policy and performance among sixteen (16) commercial banks in Ghana within a period of five (5) years, from 1993 to 2003. The study employed the Ratio of Earnings before Interest and Taxes to Equity Fund (ROEEBIT) to measure bank performance. However the explanatory variables involved dividend payout ratio as measure of dividend policy and control variables such as bank risk (standard deviation of ROEEBIT), capital structure of the banks (ratio short-term debt to net total assets and ratio of long-term debt to net total assets), bank size (log of sales), bank growth rate (growth in net total assets), bank age (log of bank age) and the non-linearity of Age (square of log of age). The results from OLS regression analyses revealed a positive relationship between dividend policy and performance. It further reveals that capital structure, size of a bank and growth boost the performance of banks.

In another Sri Lankan study, Velnampy, Nimalthasan and Kalaiarasi (2014) used a panel of twenty-five (25) manufacturing companies listed on the Colombo Stock Exchange (CSE) within a period of five (5) years from 2008 to 2012 to investigate the relationship between dividend policy and firm performance of firms. Two models were developed using return on equity and return on asset as measured by firm performance while dividend payout ratio and earnings per share served as the explanatory variables. The results obtained from OLS regression analyses indicated that dividend payout ratio has an insignificant negative effect on firm return on equity and return on assets; and insignificant positive effects on earnings

per share. The study thus concluded that dividend policy does not have an effect on firm performance.

Another study from Ghana was carried out by Onanjiri and Korankye (2014). They employed panel data covering 2004 to 2011 to investigate the impact of dividend payout on the financial performance of manufacturing firms quoted on the Ghana Stock Exchange. The study used return on asset as a measure of firm performance and dividend payout ratio to proxy for dividend policy with control variables covering size, leverage, and sales growth. The Hausman specification test performed showed that the fixed effects model was best fit for the model estimation. The regression results showed that dividend payout had a significant negative impact on the financial performance of quoted manufacturing firms' in Ghana.

In a similar study in Pakistan, Kanwal and Hameed (2017) examine the association between dividend payout ratio and financial performance using an array of five-year data covering 2008 to 2012 from 20 companies listed in Karachi Stock Exchange (KSE). Three models were developed using three dependent variables (return on asset, return on equity and net profit) regressed on dividend payout ratio as a measure of dividend policy. The correlation analysis and linear regression analysis tools were used to find the relationship between them. The result of this study shows that dividend payout ratio positively influenced the financial performance of the firm.

Oppong (2015), in his thesis, examined whether dividend policy influences banks performance in Ghana. The two multivariate models developed used return on equity and Tobin's q as proxied for bank performance. The study adopted a panel data type obtained from the seven commercial banks licensed in Bank of Ghana for the period of 10 years from 2004 to 2013. Dividend per share was used as the independent variable after

controlling for firm size, growth, inflation, leverage, capital adequacy, the age of bank and Chief Executive Officer (CEO) duality. The Hausman test was used to select the pooled OLS against fixed and random effect models. The results show dividend policy has a significant positive relationship with bank performance.

2.4 Summary of Reviewed Literature

The summary of the reviewed literature succinctly shows the author's own interpretation of the concepts; posited a theoretical explanation of the relationships between dependent and independent variables; and explains the conflicts, mix-ups, and agreements in empirical findings and how they spur this study. The related literature was reviewed under the key sub-headings: conceptual framework, theoretical framework and empirical review.

Under the conceptual review, the concepts of dividend, dividend policy, shareholder's wealth, stock market price volatility, stock liquidity, and firm profitability. The review showed that dividend is the part of the firm profit that is being distributed to the shareholders per unit of shares held, while dividend policy is the management decisions that determine the use dividend decisions to enhance the firm performance. These performance indicators can be shareholder wealth, stock price volatility or firm profitability.

Succinctly defined, shareholder's wealth is the total gains from investing in a firm's stock to the investor which is divisible into capital gains and dividend payment; stock market price volatility is investor's risk associated with changes in price of shares; while stock liquidity is the ability to buy or sell existing shares on the stock market within a very short period at low or no cost. Further, firm profitability is the excess of the revenue and expenses of firms which amounts to financial success and called profit when revenue exceeds expenses, and loss when expenses exceed revenue.

To this study, shareholder's wealth, stock market volatility and firm liquidity are regarded as stock market activities which can be influenced by dividend policy. However, the profitability is the firms' performance concern that could be influenced by dividend decisions. Thus the reviewed conceptual framework can be depicted as in Figure 2.

Independent   **Dependent**

```
                                          ┌─────────────────────────────────┐
                                          │ Financial Performance           │
┌──────────────────────┐                  │                                 │
│   Dividend Policy     │                  │  1. Shareholder's Wealth        │
│                       │─────────────────▶│  2. Stock Market Price Volatility│
│ (Dividend Yield and   │         ▲        │  3. Firm Profitability          │
│ Dividend Payout Ratio)│         │        │  4. Stock Liquidity             │
└──────────────────────┘         │        └─────────────────────────────────┘
                                  │
                       ┌──────────────────────┐
                       │   Control variables   │
                       │                       │
                       │  1. Firm Size         │
                       │  2. Firm Liquidity    │
                       │  3. Firm leverage     │
                       │  4. Firm profitability│
                       │  5. Firm growth prospects│
                       │  6. Investment opportunities│
                       │  7. Earnings volatility│
                       │  8. Financial crises  │
                       └──────────────────────┘
```

Figure 2: Model of dividend policy effect on firm performance
Source: Authors conception

Under the theoretical framework, three theories of dividend policy relevant to explaining dividend policy and firm performance nexus were reviewed. These are the Miller and Modigliani (MM) Theory, the Bird-in-the-Hand theory, and the Signalling Theory. These theories are grouped into two proponents: the dividend irrelevance and the dividend relevance propositions. The MM theorists posit that dividend policy does not matter therefore firms should use their profits in a manner that improves capital gains only. However, others explain that that dividend policy carries a rich amount of information

content sound enough to enable investors to evaluate the firm. For instance, the bird-in-the-hand theory which argues, based on time value of money, that cash dividend paid is worth more than capital gain expected in the future: this theory supports the shareholder wealth, stock market volatility, and even the profitability measures. Generally, the signalling theory tends to explain all the four objectives because it hinges on carrying information that is useful to investors so that payment of dividend implies that the firm is healthy and non-payment suggests that firm is not healthy. The two assumptions of the signalling theory (imperfect information to investors and perfect to managers; and higher tax on dividend compared to capital gains) apply to Nigeria. On the other hand, the MM theories are arguing that dividend payment is irrelevant to the firm performance and as such should be ignored. Thus, this study hinges on the relevancy propositions as well as other theories of dividend policy to show whether the richness of information contained in dividend payouts can affect firm value indicators.

The review of empirical studies shows conflicting and mixed results on shareholders' wealth, stock market volatility and firm profitability nexus. Only the liquidity nexus tends to show one line of finding that dividend policy has a negative effect on stock market liquidity. However, no study existed in Nigeria on stock market liquidity and firm performance nexus.

Table 1: Summary of empirical evidences from Nigeria

Independent variables	Findings			
	Positive Effect	Negative Effect	No Effect	Mixed Findings
Shareholders' Wealth (Market price per share)				
Divined Per Share (DPS)	Adeleke *et al* (2013), Garba (2014), Ordu, *et al* (2014), Ojeme, *et al* (2015), Sulaiman *et al* (2015), Omoregie *et al* (2016)), Simon-Oke *et al* (2016)		Ezejiofor, *et al* (2014), Ordu, *et al* (2014), Alayemi (2013)	
Dividend Payout Ratio (DPR)	Oyinlola *et al* (2014)		Anike (2014)	
Dividend Yield (DY)	Duke, *et al* (2015)	Anike (2014)		
Survey	Ozuomba, *et al* (2016), Dada *et al* (2015)			
Stock market price volatility (riskiness of firms share price)				
DPS	Osundina, *et al* (2016)		Egbeonu, *et al* (2016)	
DPR	Ajayi *et al* (2015), Egbeonu, *et al* (2016),	Wodung (2014),	Ilaboya *et al* (2013),	Okafor, *et al* (2011) (time variant)
DY	Ilaboya *et al* (2013),	Okafor, *et al* (2011), Wodung (2014),	Egbeonu, *et al* (2016)	
firms' stock liquidity				
DPS DPR DY		*No known empirical studies in Nigeria*		
Firm profitability				
DPS	Oyinlola, *et al* (2014) Garba (2014)			
DPR	Ashamu, *et al* (2008) Ebiringa, *et al* (2014), Enekwe, *et al* (2015), Ehikioya (2015), Abdul *et al* (2015), Kajola *et al* (2016) Osamwonyi *et al* (2016) Eniola *et al* (2016)		Akani *et al* (2016)	Turakpe and Fiiwe (2017) (firm-specific effects)
DY	Eniola *et al* (2016)			
Survey	Abiola (2014)			

Source: Author's conception

2.5 Gap in Literature

2.5.1 Theoretical Gap

The theoretical framework has shown that disagreement still exists on the effect of dividend policy on firm performance. The major divide is drawn in the line of "No effect" and "Effect" dichotomy. The No Effect proponent (the MM theorists) did not recognise the imperfect nature of the real world and thus is not sufficient to explain dividend policy effects in an imperfect market like Nigeria. Again, the Effect proponents being the bird-in-the-hand and signalling theorists have their shortcomings. From the bird-in-the-hand perspective, the assumption of "no external financing in a firm's capital structure" may not apply to the Nigerian business environment. The signalling theory that tends to look truer to Nigerian business environment, have come to expand its information content to cover not only information about share prices but the information content of earnings announcements, and the association between dividend and earnings changes as well as the future cash flows of the firms. Thus, the reviews revealed that there has been no model to explain the level of information content captured by dividend policies and how it affects the firm performance of quoted firms.

Following from the literature reviewed, the existing empirical studies are replete with gaps. These gaps cover geographical, time and industry coverage, findings and methodological gaps.

2.5.2 Geographical Gap

Pradhan (2014) revealed that not all increase in share prices could be associated with dividend policy variables. All the cause-effect models employed in the Nigerian context did not control for economic booms and bursts that could have influenced share price movements. For instance, in the times of economic boom of the mid-2000s in Nigeria, prices of shares snowballs continually through the period till a time when economic

meltdown set in about 2008. This gap will be filled by expanding the time frame to cover both the boom and bust eras in Nigeria. Thus, the 11-year period ranging from 2006 to 2016 would be justifiable.

Furthermore, industry characteristics might have a huge effect on the effect of dividend policy on firm performance indicators as suggested by Khan (2010) where it was found that organic chemical companies (effect) and inorganic chemical companies (no effect) have varying results on the dividend-shareholder wealth nexus. Rashid and Rahman (2008) equally agreed that industry effect will influence the significance of dividend policy. This kind of issue was not addressed in the studies in Nigeria. Thus, the proof has to be tested in Nigeria. The study will, therefore, try to group the firms into two dissimilar lines by corporate regulations: financial and non-financial firms. The essence is to examine the effect of firm characteristics in the Nigerian context.

2.5.3 Time and industry coverage gap

Most of the studies carried out in Nigeria employed timeframe of five years, with exceptions to a few: Garba, 2014, (13 years from 1991 to 2003); Wodung, 2014 (11-years from 2002 to 2012); and Duke, et al, 2015 (11 years from 2003 to 2013). The present study used a more recent and longer time coverage (2006 to 2016) than the previous ones.

More so, these extant studies did not incorporate a proportionate sample of firms from each industry that forms the population of firms listed on the Nigerian Stock Exchange. Thus, those studies may not have had a fair sample of the Nigerian firms and industry. The present study fills this gap by selecting the number of firms that will represent the similar proportional composition of each industry in the population of the NSE index. This solves a possible problem of lack of fairness in the sampling. Thus the present study could portray a better generalisation of the Nigerian stock market. To the best of the researcher's

knowledge, no study in Nigeria so far has met this depth of coverage (11 years) and spread (60 firms across 11 industry) as this present study.

2.5.4 Nature of Findings

The empirical review revealed mixed as well as conflicting results in Nigeria and other developing economies. This has supported the hypothesis that "The harder we look at the dividend picture, it seems like a puzzle with pieces that don't fit together" (Black, 1976). The need for further study emanates from the inconsistency of previous studies. Hence this study.

2.5.5 Methodological gap

The models developed to study dividend policy are inconsistent on the dividend variable to employ: some employed only dividend pay share, dividend yield, or dividend payout ratio while others employed a combination of all or two. Most of the reviewed studies especially on the stock market volatility nexus revealed that dividend payout and dividend yield are better proxies for dividend policy. This study will be one of the first empirical research efforts to employ both proxies in the Nigerian context.

CHAPTER THREE

METHODOLOGY

3.1 Research Design

The study adopted both analytical and ex-post facto research designs. The ex-post facto research design was adopted since the variables are based on data from past events documented in an audited financial statement of the selected firms. The importance of ex-post facto research is that it is a realistic approach to solving business and social science problems which involve gathering records of past events (Agbadudu, 2002 cited in Ordu, et al, 2014). One justification for the use of ex-post facto design is because the data used in this study are such that the researcher does not have the capacity to change its state or direction. Authors are of the opinion that the ex-post facto research design is suitable when the data already exist and the researchers do not intend to change the state of the data (Onwumere, 2009; Kerlinger, 1973). Thus, researchers have to adapt to and rely on such official publications for valid and reliable academic exercise. Therefore, inferences will be made without direct intervention from concomitant variations of independent and dependent variables.

The analytical design aimed to explain the procedure employed in statistically evaluating the hypothesized cause-effect (causal) linkage between dividend policy and firm performance nexus for shareholders wealth, stock market volatility, liquidity and profitability. The different types of analytical research approaches open to this study are Regression Analysis approach, Grouping Analysis Approach and Multiple Equation Methods (See http://www.dissertationindia.com/blog/descriptive-vs-analytical-approach-to-research). Specifically, this study will adopt the regression analyses approach to investigate the cause and effect of the dependent (firm performance) and independent variables (dividend policy variables) for the models of the study.

3.2 Population of the Study

The population of the study comprised all the 173 firms quoted on the Nigerian Stock Exchange as at June 20, 2017 ("Nigerian Stock Exchange", 2017). The population is considered finite and divided into twelve sectors consisting of agriculture, conglomerates, construction/real estate, consumer goods, healthcare, ICT, industrial goods, natural resources, oil and gas, services, financial services and utilities. However, no firm has been registered under the utility sector as at date. The comprehensive number of firms are shown in Table 2.

Table 2: The number of firms quoted on the Nigerian Stock Exchange by sector

SN	Sectors quoted on NSE	Total Number of Companies*	Percentage of Population**
1	Agriculture	5	2.9%
2	Conglomerates	6	3.5%
3	Construction/Real Estate	8	4.6%
4	Consumer Goods	22	12.7%
5	Healthcare	11	6.4%
6	ICT	7	4.0%
7	Industrial Goods	17	9.8%
8	Natural Resources	4	2.3%
9	Oil and Gas	12	6.9%
10	Services	24	13.9%
11	Financial Services	57	33.0%
12	Utilities	0	0%
	Total	173	100%

Sources: **Author's computation, *Extracts from the list firms of quoted on the Nigerian Stock Exchange.

3.3 Sample Size and Sampling Technique

The sample of the study is 60 firms purposively selected from the firms quoted on the Nigeria Stock Exchange which is about 34.7% of the total population of 173 firms. The sample size is justified by the claim that a good sample covers at least 10%-30% of the representative population (Mugenda & Mugenda, 2003). Thus, with 34.7% coverage, the researcher supposes that the sample is a fair representation of the population and thus sufficient for this study.

However, the proportional sampling technique was adopted to adequately accommodate the eleven active sectors in the Nigerian Stock Exchange. This technique is suitable for sampling from a population that is not homogeneous (Kothari, 2007). The sample groupings are shown in Table 3.

Table 3: Sample selection from firms quoted on the NSE

SN	Sectors quoted in the NSE	Sample	Percentage Distribution	
			Sample	Population
1	Agriculture	2	3.3%	2.9%
2	Conglomerates	2	3.3%	3.5%
3	Construction/Real Estate	3	5.0%	4.6%
4	Consumer Goods	8	13.3%	12.7%
5	Healthcare	4	6.7%	6.4%
6	ICT	2	3.3%	4.0%
7	Industrial Goods	7	11.7%	9.8%
8	Natural Resources	2	3.3%	2.3%
9	Oil and Gas	3	5.0%	6.9%
10	Services	8	13.3%	13.9%
11	Financial Services	19	31.8%	33.0%
12	Utilities	0	0%	0%
	Total	60	100%	100%

Source: Authors conception, 2017, computed from Table 2.

3.4 Sources and Nature of Data

The study employed a panel data set from the annual reports and financial statement of firms quoted on the Nigerian Stock Exchange. The panel covered a time frame of eleven (11) years from 2006 to 2016 and a cross-section of 60 firms. Thus, it is a secondary data set.

3.5 Description of Variables

The variables included in the study are in line with the models developed in section 3.6 (Model Specification) of this study. In line with the ideology of Chang and Lee (1982), the variables were normalized (by the earnings or other relative data) so that spurious correlation and multicollinearity problems can be avoided or reduced.

The description of the variables aims to explain the measure adopted and its justification for the study.

3.5.1 Dependent Variable for the Models

1. **Shareholders Wealth (SW)**: This is measured as the stock market price per share. It is generally used as a measure for shareholders wealth in literature. Theoretically, it increases with increased dividend payment. Thus, shareholders, wealth has a positive effect on dividend policy.

2. **Stock Market Price Volatility (SMV)**: This measures the riskiness of the firm stock. To compute the stock market price volatility, we, first of all, collected the monthly adjusted stock price for each year and then find the high and the lower share price for the particular year. Then the average of the high and lower prices was taken and squared. This method was applied in the work of Rashid and Rahman (2008); Nazir, *et al* (2011); Zakaria, *et al* (2012); Sadiq, *et al*, 2013; and Ullah, *et al* (2015).

3. **Firm Profitability (PROF)**: Firm profitability is measured using the return on equity. Return on equity is a measure that shows investors the profit generated from the money invested by the shareholders (Epps & Cereola, 2008). It measures the profitability of shareholders' investment and shows the net income as a percentage of shareholders' equity. The ROE is adopted in this study because it is widely used by investors to measure a company's earnings performance (Bizuayehu, 2015). This is calculated by dividing the firm's value of profit after tax with shareholders' equity. Return on equity is a meter of a firm's ability to earn profits by assessing the amount a company makes through the investments of the shareholders (Sharif, et al, 2015). In general, financial analysts consider the return on equity ratios in the 15-20% range as representing attractive levels of investment quality (Richard, 2015 as cited in Bizuayehu, 2015).

4.   **Stock Liquidity (SLIQ):** Liquidity of a firm's stock is measured by Share Turnover (Griffin, 2010). Turnover is an indicator of the liquidity of assets traded within a market. Turnover ratio is the value of total traded shares divided by market capitalization (Ghodrati & Fini, 2014). The less liquid, the fewer investors' interest in purchasing shares.

3.5.2 Dividend Policy Variables

1.   **Dividend Payout Ratio (DPO):** This is the amount of earnings paid out as a dividend to shareholders. It measures the amount of the profit distributed as a dividend to stockholders. Investors can use the payout ratio to determine what companies are doing with their earnings. The higher the dividend payout ratio, the more attractive the stock is to the stockholders (Ullah, *et al,* 2015). It is the sum of the cash dividend paid to common shareholders divided by the earnings per share for each year. This method is the general formula used in literature for the computation of the dividend payout ratio (see Hashemijoo, *et al*, 2012; Lashgari & Ahmadi, 2014).

2.   **Dividend Yield (DY):** Dividend yield comprises the total dividend paid and how the stock market perceived the firm during the time of valuation (Egbeonu, *et al*, 2016). Therefore, It is a profitability indicator expressed as a cash dividend per share for common stocks divided by the per share market value, that is, dividend per share divided by the market value per share (Oyinlola & Ajeigbe, 2014).

3.5.3 Control Variables

1.   **Firm Size (SIZE):** Firm size is the measure of the largeness or smallness of the firm. Various indicators of firm size are the volume of sales, total assets, market capitalization, turnover and interest received and receivable from banks. However, there is no theoretical reason for using a particular measure of size (Hackston & Milne, 1996). The most common measure of firm size in studies of dividend policy has been the total asset. This

study adopted that asset as the measure of size. It is measured by the natural logarithm of total asset.

2.   **Firm Liquidity (FLIQ):** Liquidity measures the availability of money or near money for immediate cash spending. In this study, firm liquidity is measured as cash divided by the total asset.

3.   **Firm Leverage (LEV):** This measures the level of debt involved in the operating of the firm. A firm can have huge debt compared to equity (high levered) or small debt compared to equity (low levered). Leverage is calculated as the ratio of total debts to total assets.

4.   **Firm Growth Prospects (GR):** Firms growth can be measured in terms of asset, sales or income revenue. In this study, the firm growth rate is achieved based on a percentage of the difference in sales of the current year from the previous year divided by the sales of the previous year (Rashid & Rahman, 2008; Irandoost, *et al*, 2013).

5.   **Investment Opportunities (IO):** Literature on cash flow and Tobin's q has been used as the measure of investment opportunities. This study adopted the use of Q. This is based on the idea that investment opportunities, which are forward-looking, can be captured by equity market participants, who are also forward-looking, and is able to capture outsiders' evaluation of opportunities (Carpenter & Guariglia, 2003). Tobin's q is the ratio of physical asset market value to its replacement value. Since Tobin's q represent investment growth opportunities, a positive relationship is expected between the ratio of Tobin's q and firm' future performance. Consistent with Fu, Singhal and Parkash (2016), Tobin's q is computed as Total Market Capitalisation divided by Total Book Value (Total Asset) for each firm.

6.   **Earnings Volatility (E.Vol):** This is the riskiness of earnings to change over time. The variable is computed by first taking the average of available years of the ratio of operating earnings to total assets. The next step is to calculate an average of the squared deviation from the overall average. A square root transformation is then applied to the mean squared deviation to obtain estimates of standard deviation.   This method was adopted from Jecheche (2012) and Salari, *et al* (2014).

7.   **Financial Crises (FC):** This is a situation of general instability in the financial sector causing high risk to the value of money and investment. In this study, it is taken as a dummy for the financial crisis that affected stock market activities in Nigeria. Periods of financial crises were taken as 1 and 0 for periods of no crises. To determine these periods, the data on the All Share Index (ASI) was used. Figure 3, showed that the Nigeria Stock Exchange suffered financial crises from 2009 to 2012. Evidence in Figure 3showed that the ASI came down from 50,425 in 2008 to the neighbourhood of 20,000 in 2009, and stayed down from 2009 till 2012 before going up to 36, 207.
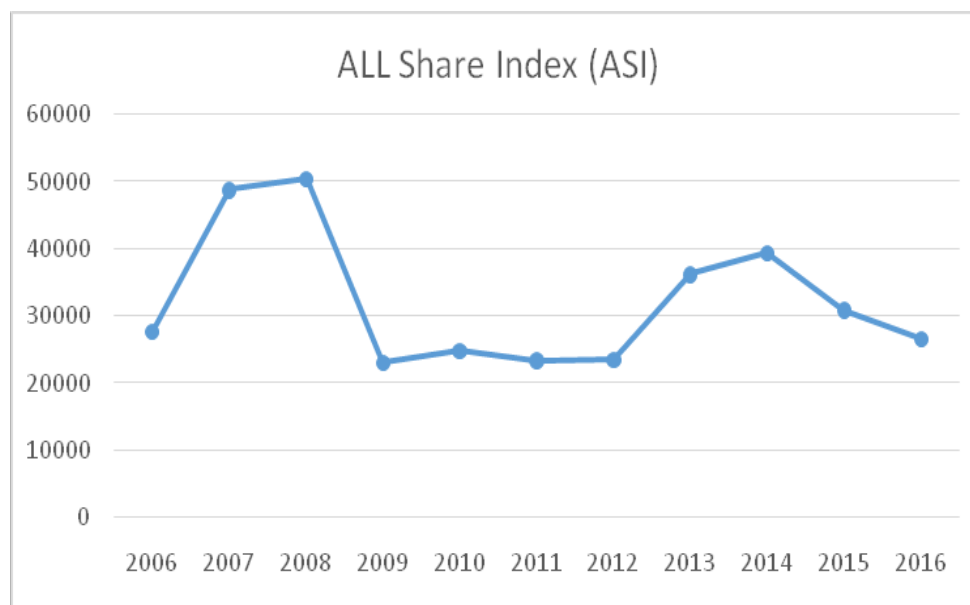
Source: Author's conception graphed with data extract from Table A.5.7 of the CBN
Statistical Bulletin, 2016

Figure 3: Trend of ASI showing the period of financial crises in the Nigerian Stock
Exchange

3.6 Model Specification

This study aims to propose models for determining the effect of dividend policies on firm
performance indicators, particularly in Nigeria. The control variables to dividend policies
differ from one firm performance indicator to another such that what moderates the effect
of dividend policy on share prices may differ from those of stock market volatility,
profitability, and liquidity. If the relevant variables for each model are omitted from a
regression equation, as is well known in econometrics, the estimates obtained are likely to
be biased (Chang & Lee, 1982). Thus, the dividend policy models for the specific
objectives may differ from one objective of the study to another. Therefore, this study will
propose four unique models for each objective of the study.

Therefore, the regression models are such that dividend policy and its confounding
variable(s) are the explanatory (independent) variables, while share price (shareholder

wealth), share volatility, profitability, and liquidity are the respective dependent variables for each model. Sub-sections 3.6.1 to 3.6.4 captures the explanations and justifications for each of the models.

Generally, each of the models used both dividend payout ratio and dividend yield as proxies for dividend policy decisions of the selected firms. This approach is adapted from extant literature across different economies such as Nigeria (Okafor*, et al,* 2011; Ilaboya, *et al*, 2013; Wodung, 2014; Akani & Sweneme, 2016); Pakistan (Nishat, *et al*, 2006; Habib, *et al*, 2012); Bangladesh (Rashid, *et al,* 2008); Kenya (Malombe, 2011; Kenyoru, *et al*, 2013); Malaysia (Hashemijoo, *et al*, 2012; Zakaria, *et al*, 2012); Zimbabwe (Jecheche, 2012); Jordan (Al-Shawawreh, 2014); Indonesia (Waworuntu, *et al*, 2017); Iran (Kamyabi, *et al*, 2014);Sri Lankan (Ugvdd, *et al*, 2015) and even in developed economy of the USA (Profilet, *et al*, 2013). For instance, Waworuntu, *et al* (2017) used this approach to study the effect of dividend policy on shareholders' wealth, while Ugvdd, *et al* (2015) applied it on both shareholders' wealth and stock market volatility models. Also, a study in profitability model has equally adopted it (see Akani & Sweneme, 2016). The use of this approach could be suitable for a study in Nigeria because the economies in which they were applied are developing economies like Nigeria.

In order to control for firm-specific factors, the model was developed to combine both the dividend policy variables (dividend payout ratio and dividend yield) and control variables. This approach was adopted as in Nishat, *et al* (2006), Rashid, *et al* (2008), Hashemijoo, *et al* (2012), Zakaria, *et al* (2012), Jecheche (2012), Kenyoru, *et al* (2013) as applied to stock volatility model and profitability model (Malombe, 2011). The inclusion of the control variable to the models for each objective was to limit the confounding complications that may apply (Malombe, 2011; Hashemijoo, *et al*, 2012; Zakaria, *et al*, 2012; Jecheche, 2012; Kenyoru, *et al*, 2013).

3.6.1 Dividend policy and shareholders wealth model

$$SW_{it} = a_0 + a_1 DPO_{it} + a_2 DY_{it} + a_3 SIZE_{it} + a_4 GR_{it} + a_5 PROF_{it} + a_6 FLIQ_{it} + a_7 LEV_{it} + \mu_i \quad (1)$$

Where:

Symbol	Meaning	*Apriori* Expectation
SW =	shareholder wealth proxied by Market Price per Share	Dependent variable
DPO =	Dividend payout ratio measured as dividend per share dividend by earnings per share	Positive
DY =	Dividend yield measured as divided per share divided by market price per share	Positive
SIZE =	firm size measured as the log of Total Assets	Positive
GR =	growth opportunities measured as income revenue growth	Positive
PROF =	Profitability measured as return on equity	Positive
FLIQ =	Firm liquidity proxied cash to asset ratio.	Positive
LEV =	Financial leverage proxied by total debt to total asset	Negative

The subscripts t denotes the time frame covered while i subscripts denotes the firms. μ is the error term. a_0 is the constant, a_{1-2} is the coefficients of dividend policy while a_{3-7} are the coefficients of the control variables.

The control variables included in this model are firm size (SIZE), growth opportunities (GR), profitability (PROF), firm liquidity (FLIQ) and financial leverage (LEV). The inclusion of these variables are supported by previous studies: Firm size (Salih, 2010; Iqbal, *et al* 2014, Chenchehene, *et al,* 2015; Waworuntu *et al,* 2017), Growth opportunities (Iqbal, *et al* 2014; Waworuntu, *et al,* 2017), profitability (Chenchehene, *et al,* 2015; Bilal,

et al 2015), firm liquidity (Salih, 2010) and LEV (Chenchehene, *et al,* 2015; Waworuntu *et al,* 2017).

3.6.2 Dividend policy and firms' stock market price volatility model

$$SMV_{it} = b_0 + b_1 DPO_{it} + b_2 DY_{it} + b_3 GR_{it} + b_4 LEV_{it} + b_5 SIZE_{it} + b_6 E.Vol_{it} + b_7 FC_{it} + \mu_{it} \qquad (2)$$

Where:

Symbol	Meaning	*Apriori* Expectation
SMV =	Stock Market Volatility	Dependent variable
DPO =	Dividend payout ratio measured as dividend per share dividend by earnings per share	Negative
DY =	Dividend yield measured as divided per share divided by market price per share	Negative
GR =	Growth opportunities measured as income revenue growth	Positive
LEV =	Financial leverage measured by total debt to total asset	Positive
SIZE =	firm size measured as the log of Total Assets	Negative
E.Vol =	Earnings volatility	Positive
FC =	Financial crises as dummy variable of 1 for periods of financial crises and 0 for periods of no crises	Positive

The subscripts t denotes the time frame covered while i subscripts denotes the firms. μ is the error term. b_0 is the constant, b_{1-2} is the coefficients of dividend policy while b_{3-7} are the coefficients of the control variables.

The control variables included in the model are supported by previous studies: earnings volatility (Habib, *et al* 2012; Ilaboya, *et al*, 2013; Lashgari, *et al,* 2014), leverage (Habib, *et al* 2012, Ilaboya, *et al*, 2013; Lashgari, *et al,* 2014, Wodung, 2014), growth (Habib, *et al* 2012, Ilaboya, *et al*, 2013; Lashgari, *et al,* 2014, Wodung, 2014*)* and SIZE (Habib, *et al*

2012, Ilaboya, *et al*, 2013; Lashgari, *et al,* 2014, Wodung, 2014) and financial crisis as dummy (Wodung, 2014).

3.6.3 Dividend policy on firms' stock liquidity model

$$SLIQ_{it} = c_0 + c_1 DPO_{it} + c_2 DY_{it} + c_3 SIZE_{it} + c_4 IO_{it} + c_5 LEV_{it} + c_6 PROF_{it} + \mu_{it} \ (3)$$

Where:

Symbol	Meaning	*Apriori* Expectation
SLIQ =	Stock liquidity proxied by turnover ratio measured as total value traded for each firm dividend by its market price per share	Dependent variable
DPO =	Dividend payout ratio measured as dividend per share dividend by earnings per share	Positive
DY =	Dividend yield measured as divided per share divided by market price per share	Positive
SIZE =	firm size measured as the log of Total Assets	Positive
IO =	Investment opportunities measured as Turbin's Q.	Positive
LEV =	Financial leverage measured as total debt to total asset	Negative
PROF =	Profitability measured as return on equity.	Positive

The subscripts t denotes the time frame covered while i subscripts denotes the firms. μ is the error term. c_0 is the constant, c_{1-2} is the coefficients of dividend policy while c_{3-6} are the coefficients of the control variables.

The control variables of this model included firm size (SIZE), Investment opportunities (IO), financial leverage (LEV) and Profitability (PROF). These variables are supported by previous studies. The studies from which these variables were adapted are: firm size

(Alnaif, 2015; Gul, *et al,* 2015; Michaely, *et al,* 2017), investment opportunities (Michaely, *et al,* 2017), financial leverage (Alnaif, 2015; Gul, *et al,* 2015; Michaely, *et al,* 2017) and profitability (Alnaif, 2015; Gul, *et al,* 2015; Michaely, *et al,* 2017).

3.6.4 Dividend policy on Firm profitability model

$$PROF_{it} = d_0 + d_1DPO_{it} + d_2DY_{it} + d_3SIZE_{it} + d_4GR_{it} + d_5IO_{it} + d_6LEV_{it} + \mu_{it} \quad (4)$$

Where:

Symbol	Meaning	*Apriori* Expectation
PROF =	Profitability measured as return on equity.	Dependent variable
DPO =	Dividend payout ratio measured as dividend per share dividend by earnings per share	Positive
DY =	Dividend yield measured as divided per share divided by market price per share	Positive
SIZE =	firm size measured as the log of Total Assets	Positive
GR =	Growth opportunities measured as income revenue growth	Positive
IO =	Investment opportunities measured as Turbin's Q.	Positive
LEV =	Financial leverage proxied by total debt to total asset	Negative

The subscripts t denotes the time frame covered while i subscripts denotes the firms. μ is the error term. d_0 is the constant, d_{1-2} is the coefficients of dividend policy while d_{3-5} are the coefficients of the control variables.

In the model of model of dividend policy and firm profitability nexus is included four control variables: Firm size (SIZE), Growth opportunities (GR), Investment opportunities (IO) and financial leverage (LEV). The inclusion of these variables are supported by previous empirical studies. Size (Amidu, 2007; Agyei, *et al,* 2011; Onanjiri, *et al*, 2014;

Oppong, 2015; Khan, *et al,* 2015; M'rabet, *et al,* 2016, Osamwonyi & Lola-Ebueku, 2016),

Growth opportunities (Amidu, 2007; Onanjiri, *et al*, 2014; Oppong, 2015; Osamwonyi &

Lola-Ebueku, 2016); Financial leverage (Amidu, 2007; Agyei, *et al,* 2011; Onanjiri, *et al*,

2014; Khan, *et al,* 2015; Oppong, 2015). Oyinlola, *et al,* (2014) used firm's investment to

proxy for investment opportunities.

3.7 Method of Data Analyses

The Panel data regression model is adopted for the study. With a sample drawn across

quoted firms from the eleven (11) active sectors of the Nigeria Stock Market, it is notable

to say that the firms will be heterogeneous. However, the time-series of each firm do not

satisfactorily allow the estimation of an equation for each firm with adequate variables and

degrees of freedom. Authentic results, therefore, may not be obtained if an equation is

estimated for each firm. In this study, cross-sectional and time-series data are pooled in

regression to overcome the problem of insufficient degrees of freedom.

By using panel data sets, one can easily control for individual unobserved heterogeneity,

obtain more accurate results because it provides more observations and information to

work with, it allows following up individual dynamics and therefore before and after

effects can easily be estimated like in this study (Temple, 1999; Woodridge, 2002 and

Hsiao, 2003). Analysis of panel data is able to provide a large of data point to researchers,

by increasing the degrees of freedom and reducing the collinearity among explanatory

variables. Hence, this can improve the efficiency of econometric estimates (Hsiao, 2003).

Following that financial and non-financial firms operate under different regulatory

environment, it is permissible to believe that they are highly heterogeneous. Analyses that

pool both groups of firms together may give false result about market reactions to firm

dividend policies in Nigeria. The analyses are therefore run separately for firms in the financial service sector and firms in the non-financial service sector.

3.7.1 Econometric Model

The econometric model for the analyses is based on static model assumptions that can capture the firm and time variants problems of panel data set. The econometric model assumes that the dependent variable (firm performance) is a function of dividend policy variables as follows:

$$Y_{it} = \delta_i + \mu_t + \beta(X_{it}) + \varepsilon_{it} \qquad (5)$$

Y_{it} = the dependent variable for models 1 to 4(that is, Market Price per Share, stock market volatility, profitability or liquidity)

δ_i = Firm specific, time invariant effect

μ_t = Time specific, firm invariant effect

X_{it} = The vector of the explanatory variables in models 1 to 4(dividend payout ratio, dividend yield + control variables for each of the models)

Subscript: (i) = industries (i=1, 2, ….N)

                       (t) =time (t=1, 2, …T)

β = Scalar vector of coefficients of β_1, β_2, … β_n , for models 1 to 8.

                       (a_1, a_2,… a_n for models 1 and 2);

                       (b_1, b_2,… b_n for models 3 and 4);

                       (c_1, c_2,… c_n for models 5 and 6); and

                       (d_1, d_2, … d_n for models 7 and 8);

ε_{it} = Error term with E(ε_{it}) = 0 and var (ε_{it}) = σ_ε^2.

$\varepsilon_{it} \approx$ IID(0, σ_ε^2)

Generally, we can estimate an equation in three different methods, such as- Pooled Ordinary Least Square (OLS), Fixed Effects (FE) Model and Random Effects (RE) model.

3.7.1.1 Pooled Ordinary Least Square (OLS)

This method will be used if it is found that both the time series and the cross-section of firms, do not have an effect on the regression results. When there is no time and firm effect in the models, it implies that the often present omitted variable bias in Pooled OLS estimations is not in the results. Omitted variables may be due to data limitation or ignorance.

In a panel data model, the omitted variable bias resulting from the unobserved variable in the error term that is possibly correlated with one or more of the explanatory variables is also referred to as "unobserved heterogeneity". This unobserved heterogeneity can be handled in three possible ways. One of the ways is to disregard the problem and get biased and inconsistent estimators. The second approach is to try to find a proxy variable for the unobserved variable but they are likely to be measured with errors. Alternatively, using the third method, the research can assume that the omitted variable is constant over time and use certain statistical methods to control for the unobserved heterogeneity. This method gives rise to the use of panel regression (fixed or random effect model).

3.7.1.2 Fixed Effects Model (FEM)

The Fixed Effect Model will be used when it is found that, firm-specific effect exist but there is no time effect. An unobserved heterogeneity in Nigerian industry may lead to firm-specific unobserved characteristics that may be correlated with the explanatory variables in the model. One of the possible options for handling the unobserved heterogeneity is to use Fixed Effects (FE) to control for the unobserved effects. So, the second method of the regression equation assumes constant but not homogenous firm-specific effects, which leads to the Fixed Effects (FE) model. "Fixed Effects (FE) model is the best fit if we

assume that the unobserved heterogeneity among the firms only results in parametric shifts of the regression function and that it is correlated with one or more of the explanatory variables (Wooldridge, 2002)".

3.7.1.3 Random Effects Model (REM)

Random Effects Model (REM) is the third method of the regression analysis for a panel data. The REM is applicable when both firm-specific and time effects are present in the data used for analyses. The REM is used when it is assumed that the error terms of each individual firms are randomly distributed across firms and hence the unobserved effects are uncorrelated with any explanatory variables. Thus, REM controls for unobservable heterogeneity.

3.7.2 Model Selection

Two tests were conducted to choose the most appropriate analytical technique. The poolability test and Hausman Test.

Poolability Test

The Pool test assumed that the same coefficients apply to each individual test (Croissant & Millo, 2008). The Chow test was used to select between pooled regression (OLS regression) and panel data analyses (fixed effect and random effect models). This analysis is based on Redundant Fixed Effects Tests as used in Lashgari and Ahmadi (2014). The test aims to determine whether to employ the pooled OLS or the fixed effect model. The null hypothesis is based on the lack of individual and group effects. The hypothesis is as follows:

Ho: pooled model

Hi: Fixed effect model

Decision Rule: At 0.05 level of significance, reject H0 if the probability of test statistic (H) is less than 5% significant level; otherwise do not reject H0.

Hausman Test

In order to determine between Fixed and Random effect analytical techniques to be used for the purpose of making conclusion, the Hausman's specification test was conducted. The null hypothesis underlying the Hausman's specification test is that fixed and random effects models do not differ substantially. Hausman Test has the following hypothesis:

Ho: Random effects would be consistent and efficient

Hi: Fixed effects would be consistent and efficient

Decision Rule: At 0.05 level of significance, reject H0 if the probability of test statistic (H) is less than 5% significant level; otherwise do not reject H0.

Empirically, if the probability value of the chi-square is greater (less) than 0.05, the estimation based on the Random effects (Fixed effects) will be better off.

3.8.4 Statistical Computations

The Eviews 9 was used for the data analyses. Eviews is a computer-based econometric tool for data analyses. It made the data analyses easy and more robust and understandable than those computed manually.

CHAPTER FOUR

DATA ANALYSES AND INTERPRETATION OF RESULTS

In this chapter, the results are presented and interpreted in line with the objectives of the study. Preceding model estimation were preliminary analyses to understand the characteristics of the variables selected as well as the suitability of the model for the study. Thus, descriptive analyses and normality tests were conducted. This was followed by tests for selection of the appropriate model of analyses: chow test and Hausman test. Finally, the model estimation was based on fixed and random effect techniques.

4.1 Descriptive Statistics

Table 4: Descriptive analyses for firm performance variables and dividend policy variables: 2006 - 2016

VARIABLES	FINANCIAL FIRMS				NON-FINANCIAL FIRMS			
	Mean	Max	Min	Std. Dev	Mean	Max	Min	Std. Dev
Shareholder Wealth (SW) (Naira)	7.02	48.09	0.50	9.22	33.42	280.49	0.00	54.34
Stock Market Volatility (SMV)	134.03	2312.6	0.25	333.60	4062.22	78674.64	0.00	11468.58
Firm Profitability (PROF) (%)	4.12	65.79	-233.11	28.07	15.59	520.52	-989.38	67.45
Stock Liquidity (SLIQ)(ratio)	1.07	7.62	0.02	1.29	3.84	60.85	0.00	6.72
Dividend Payout Ratio (DPO) (%)	0.29	6.82	-5.00	0.98	60.69	9600.00	-5775.00	588.59
Dividend Yield (DY) (%)	3.65	19.05	0.00	4.21	3.46	15.66	0.00	3.37

Source: Output generated using Eviews 9

The summary statistics provided information about the means, standard deviations (SD), minimum and maximum of all the employed variables. Mean is the average value of the series; the maximum and minimum values of the series are the highest and the lowest values of the series, while the standard deviation measures dispersion in the series. The

descriptive statistics for the core variables are explained to give insight into the nature and activities of the selected quoted firms.

4.1.1 Shareholders Wealth (SW)

The shareholders' wealth (SW) is measured as the market price per share. The mean value for the financial firms is N7.02with a standard deviation of N9.22, and the non-financial firms have a mean value of N33.42 with a standard deviation of N54.34. The mean values show that the quoted non-financial firms have a higher shareholder value than the financial firms in Nigeria.

In each of the groups (financial and non-financial firms), the standard deviation is higher than the mean values. This indicates that there is a variation in the shareholder wealth among the firms in both financial and non-financial firms. For instance, the maximum value in the financial firms is N48.09 while the minimum value is 50kobo. For the non-financial firms, the maximum is N280.49 with zero (0) minimum value. The results show that firms in the non-financial businesses have the highest market value compared with firms in the financial sector.

4.1.2 Stock Market Price Volatility (SMV)

The stock market price volatility is the proxy for measuring the riskiness of the stock market. The volatility trend in each of the firms was collected and grouped into financial and non-financial firms. The mean value of SMV for the financial firms is 134.03 with a standard deviation of 333.60. The standard deviation is higher than the mean value indicating that there is a variation in the riskiness of firms in the financial sector. Some firms are more than twice riskier than others.

For the firms in the non-financial sectors, the mean value is 4062.22 with a standard deviation of 11,468. Like the financial firms, the standard deviation is more than twice

higher than the mean SMV. This suggests that some firms are riskier than others, and this is common about the firms quoted in the Nigerian Stock Exchange. This is also supported by the higher values of the maximum SMV for the non-financial (78674.64) over the financial (2312.6) sub-sector firms.

Furthermore, the mean value for the non-financial firms (4062.22) is higher than that of the financial firms (134.03). This means that investment in firms in the non-financial sectors is riskier than firms in the financial sub-sectors.

4.1.3 Firm Profitability (PROF)

The profitability of the selected firms is measured using the return on equity, as the most essential profitability measure to the equity investors.

For the financial firms, the mean value of PROF is 4.12% (4kobo) with s standard deviation of 28.07% (28kobo). The maximum value is 65.79% (66kobo) with a minimum value of-233.11% (233 kobo loss). The results showed a wide variation in the profitability of quoted financial sub-sector firms. With a maximum of 66 kobo as profit on investors' equity, some firms have about 233 kobo loss on equity investment over the period of 2006 to 2016.

For the non-financial firms, the mean value is 15.59% (16 kobo) with a standard deviation of 67.45% (68kobo). The maximum and minimum values are 520.52% (521kobo) and -989.38% (989 kobo loss) respectively. As seen on the financial firms, the non-financial firms also recorded wide variation in profitability and more loss (989 kobo) than the financial firms. The maximum rate of PROF for financial firms 66 kobo and non-financial firms (68 kobo) is relatively same, as compared to the wide gap in the rate of loss sustained by both sectors: financial firms (233 kobo) and non-financial firms (989 kobo).

4.1.4 Stock Liquidity (SLIQ)

Liquidity is the measure of investor confidence that determines how quick investor can convert firm stock into real cash. The mean value of the SLIQ for financial firms is 1.07 with a standard deviation of 1.29 while the mean for the non-financial firms is 3.84 with a standard deviation of 6.72. The average liquidity of the financial firms (1.07) is less than the generally accepted value of 2:1; that of the non-financial firms (3.84) is higher than the acceptable value. The results imply that financial firms quoted on the Nigerian Stock Exchange with the study period (2006 to 2016) are highly illiquid while the non-financial firms are liquid. Thus, it can be said that investor confidence can be more in the non-financial firms.

The maximum (minimum) values the financial firms are 7.62 (0.02) and 60.85(0.00) for the non-financial firms. The results show that non-financial firms have higher liquidity than the financial firms; and as well, the non-financial firms equally recorded totally illiquid firm with zero (minimum value of 0.00) trading.

4.1.5 Dividend Policy Variables (Dividend Payout Ratio and Dividend Yield)

Dividend policy of the firms is represented by dividend payout and dividend yield. The higher the payout ratio and yield, the more dividend paying policy the firms is attributed to adopting. Dividend payout measures the proportion of profit distributed as dividend, while dividend yield is the measure of investor's earnings from dividend payment.

The mean of the Dividend Payout Ratio for the financial firms is 0.29% (0.3kobo) with a standard deviation of 0.98% (1kobo). That of the non-financial firms is, mean: 60.69 (61 kobo) and standard deviation: 588.59% (589 kobo). This is an indication that non-financial firms distributed a greater proportion of its earnings as compared to the financial firms that distributed only 0.98% of their earnings. The standard deviation showed that there is a

very wide variation in the proportion of dividend distribution (DPO) among the firms in the non-financial sub-sectors as compared to the financial sub-sectors (with a standard deviation of 0.98).

The mean dividend yield for the financial firms is 3.56% (3.6 kobo) with a standard deviation of 4.21% (4.2 kobo). For the non-financial firms, the mean and standard deviation are 3.46% (3.5 kobo) and 3.37% (3.4 kobo) respectively. This indicates that the shares in the financial sub-sector earn more yield than those in the non-financial sub-sectors. This is also supported by the maximum values for the financial (19.05%) and non-financial (15.66%) firms.

Table 5: Result of Jargue-Bera Statistics for test of normality

Variables	Financial Firms		Non-Financial Firms	
	Jarque-Bera	Probability	Jarque-Bera	Probability
Shareholders Wealth (SW)	323.21	0.0000	913.54	0.0000
Stock Market Volatility (SMV)	3936.77	0.0000	5779.86	0.0000
Firm Profitability (PROF)	9976.36	0.0000	298872.9	0.0000
Stock Liquidity (SLIQ)	1065.36	0.0000	14156.40	0.0000
Dividend Payout Ratio (DPO)	5129.76	0.0000	653443.6	0.0000
Dividend Yield (DY)	28.99	0.0000	77.84	0.0000
Firm Size (SIZE)	21.95	0.0000	12.33	0.0021
Firm Liquidity (FLIQ)	57.87	0.0000	964.41	0.0000
Financial Leverage (LEV)	23.36	0.0000	265.05	0.0000
Growth Opportunities (GR)	256.05	0.0000	2351939.	0.0000
Investment Opportunities (IO)	3807.50	0.0000	3802.59	0.0000
Earnings Volatility (E.Vol)	1226.26	0.0000	1142216.00	0.0000
Financial Crisis (FC)	31.33	0.0000	66.423	0.0000
Number of Firms	19		41	
	190		397	
Number of Observations				

Source: Output generated using Eviews 9.

4.2 Normality Test

Jarque-Bera test of normality is used to identify the normality of error term. The result is presented in Table 5. The Jarque-Bera statistic is tested at 0.05 level of significance. The

decision rule is to reject the null hypothesis when p.value is less than 0.05 level of significance, otherwise, do not reject. The null hypothesis that error terms are normally distributed is rejected at 1% significance level for all the variables. Thus, it is held that the error term is not normally distributed. Thus, the variables used in this study lack normality, for both the financial and non-financial firms in Nigeria.

4.3. Test of Multicollinearity

Table 6: Correlation Matrix for test of multicolinearity in Dividend Policy (DPO, DY) and control variables (SIZE, FLIQ, LEV, GR, IO, E.Vol and FC) of the study

	DPO	DY	SIZE	FLIQ	LEV	GR	IO	EVOL	FC
Financial Firms									
DPO	1.0000								
DY	0.2717	1.0000							
SIZE	0.2616	0.5360	1.0000						
FLIQ	-0.1877	-0.0592	0.0066	1.0000					
LEV	0.1664	0.3491	0.6504	0.1326	1.0000				
GR	0.0229	-0.0132	0.0448	-0.0807	0.0594	1.0000			
IO	0.0171	-0.1332	-0.1194	-0.2294	-0.1153	0.2679	1.0000		
EVOL	0.0328	0.3505	0.5011	0.0606	0.3273	0.0240	-0.0092	1.0000	
FC	0.1147	-0.0022	-0.0579	-0.3044	-0.0594	-0.0570	-0.2027	-0.2065	1.0000
Non-Financial Firms									
DPO	1.0000								
DY	-0.0443	1.0000							
SIZE	0.0266	0.0377	1.0000						
FLIQ	0.0134	0.1547	-0.1648	1.0000					
LEV	0.0430	-0.1591	0.2150	-0.0935	1.0000				
GR	-0.0051	-0.0599	-0.0241	0.0048	-0.0473	1.0000			
IO	0.1276	-0.0322	0.0829	0.3659	0.1139	0.1849	1.0000		
EVOL	-0.0044	0.0280	0.2043	0.0138	0.1570	-0.0097	0.0604	1.0000	
FC	-0.0518	0.1080	-0.0528	-0.0325	-0.0143	-0.0324	-0.0737	-0.0472	1.0000

Source: Output generated using Eviews 9.

This test is conducted to check for the suitability of the explanatory variables in each of the models. Since the first models are the theoretical model of the relationship between dividend policy and firm performance, only the second models controlling for firm

activities are tested for multicollinearity. The explanatory variables are tested for multicollinearity using the correlation matrix as shown in Table 6.

The correction matrix in Table 6 is used to measure the existence of multicollinearity between the variables. The existence of colinearity shows that the regression cannot precisely interpret the influence of independent variable towards dependent variable (Gujarati & Porter, 2009).In this situation the coefficient estimates of the multiple regression may change erratically in response to small changes in the model or the data, thereby giving the wrong impression about the effect of the explanatory variables on the dependent variable. High pairwise correlation between two variables means there is a serious multicollinearity problem in the regression model. The level of high multicollinearity exists when the correlation between two variables exceed 0.8 (Gujarati & Porter, 2009).

The result in Table 6 showed a correlation matrix for financial firms and non-financial firms. For the financial firms, the highest pair-wise correlation is 0.650 between firms size (SIZE) and financial leverage (LEV), while the lowest pair-wise correlation is 0.0171 between Dividend Payout Ratio (DPO) and Investment Opportunities (IO). For the non-financial firms, the highest correlation is 0.3659 between IO and firms' liquidity (FLIQ), while the lowest collection is -0.0044 between DPO and earnings volatility (EVol). Since none of the correlation coefficients is as high as 0.8, the researcher posits that the four models developed from these explanatory variables do not suffer from serious multicollinearity. It is therefore concluded that the four models on which the four objectives were anchored are suitable for regression analyses.

4.4 Model Estimation

The four sub-objectives of the study were estimated for the effect of dividend policy on firm performance. The analyses were conducted for pooled OLS, fixed effect and, random effect models. The results are shown in Tables 7 to 14 for shareholders wealth, stock market volatility, stock liquidity and, firm profitability models.

The analyses for each of the models were presented for the financial and non-financial firms respectively. The analyses for the financial firms involved a period of 11 years (2006 to 2016) from 19 firms consisting of 183 observations. For the non-financial firms, it was 11 years (2006 to 2016) with 41 firms consisting of 395 observations.

4.4.1 Dividend Policy and Shareholder Wealth

The results of regression analyses on the effect of dividend policy on shareholders' wealth are presented in Table 7 (for the financial firms) and Table 8 (for the non-financial firms).

For Table 7, the financial firms, the test to select between the pooled OLS regression and panel data regression (Chow test) showed a Chi-square result (134.9292) with probability value (0.0000) less than 0.05 level of significance. Thus, the null hypothesis that the pooled model is preferred, is rejected. The further test to choose between the Fixed and Random Effect models was done using the Hausman test. The Hausman statistics (Chi-square) value of 41.382 (0.0000) was rejected at 0.05, therefore, the null hypothesis that random effects would be consistent and efficient is rejected. Thus, the Fixed effect model is chosen for analysing the effect of dividend policy on shareholders' wealth. This implies that results are time-invariant but the individuality of the selected firms are recognised (factored in) in explaining the effect of dividend policy on shareholders' wealth among the financial firms

For the non-financial firms, the preferred model is the random effect technique. At the 0.05 level of significance, the poolability test rejected the use of the Pooled OLS regression, and the Hausman test rejected the use of a fixed effect model. Using the random effect model

implies all the selected non-financial firms have a common mean value. That is, both time and firms' specific characteristics do not affect the results.

Table 7 revealed an R-square of 0.7000 indicating that about 70% of changes in shareholder wealth can be explained by dividend policy (DPO, DY) and the control values (Size, GR, PROF, FLIQ and LEV). The F-statistics (14.6563) with a probability value of (0.0000) which is less than 0.05 indicates that at least one of the explanatory variables have a significant effect on shareholders' wealth of the financial firms in Nigeria. The Durbin Watson statistics of 1.6901 suggests that there is no autocorrelation in the model.

From the coefficient or regression, it can be seen that DPO has a positive but insignificant effect on shareholders' wealth, while DY has a negative and insignificant effect on shareholders' wealth. This implies that dividend policy may not lead to changes in shareholders' wealth of the financial sub-sector firms in Nigeria.

The results from the control variables showed that firm size (8.9677), and growth opportunities (0.0235) have a significant positive effect on shareholders' wealth. The results imply that a percentage increase in firm size is capable of increasing shareholders' wealth by 8.97%. More so, a unit increase in growth opportunities (revenue generation) might lead to 0.02 units of increase in shareholders' wealth. This suggests that firm size and growth opportunities are strong variables that can be factored into dividend policies to boost shareholders' wealth of the financial firms in Nigeria.

The other control variables including firm profitability (0.0184), firm liquidity (0.0270) and financial leverage (0.0257) have a positive but insignificant effect on shareholders' wealth of the financial firms in Nigeria. This implies that profitability, liquidity and financial leverage do not necessarily influence firm shareholders' wealth through its dividend policies.

Table 7: Result of the effect of Dividend Policy on Shareholders wealth for Financial Firms

Method Independent Variables	Pooled OLS	Fixed Effect (*Preferred Model*)	Random Effect
Constant (C)	-41.3697	**77.9042***	-15.6742***
	(-5.4218)	**(3.8277)**	(-1.7295)
Dividend Payout Ratio (DPO)	0.7453	**0.0921**	0.3608
	(1.2320)	**(0.1952)**	(0.7749)
Dividend Yield (DY)	-0.2844***	**-0.0888**	-0.2773**
	(-1.7563)	**(-0.6352)**	(-2.1191)
Firm Size (SIZE)	6.2949*	**8.9677***	2.1618
	(5.0195)	**(3.6131)**	(1.6171)
Growth Opportunities (GR)	0.0399*	**0.0235***	0.0426*
	(3.1638)	**(2.2497)**	(4.4672)
Firm Profitability (PROF)	0.0414***	**0.0184**	0.0263
	(1.9184)	**(1.0772)**	(1.5636)
Firm Liquidity (FLIQ)	0.0315	**0.0270**	-0.0249
	(0.5855)	**(0.5654)**	(-0.5736)
Firm Leverage (LEV)	-0.0617	**0.0257**	0.0701
	(-1.3041)	**(0.4547)**	(1.5010)
R-Squared	0.3729	**0.7000**	0.1552
F-statistic (Prob)	14.8720(0.0000)	**14.6563 (0.0000)**	4.5960 (0.0000)
Durbin Watson (DW)	0.504786	**1.6901**	0.6487
Poolability Statistic		134.9292 (0.0000)	
Hausman test			41.382 (0.0000)

Dependent Variable: shareholders' wealth (SW), significant at *1%, **5%, ***10%; () t-statistics
Source: Extract from Results presented on Appendix 3a

Table 8: Result of the effect of Dividend Policy on Shareholders wealth for Non-Financial Firms

Method Independent Variables	Pooled OLS	Fixed Effect	Random Effect (*Preferred Model*)
Constant (C)	-278.7586	-201.2677*	**-228.8036***
	(-12.1153)	(-3.7637)	**(-5.6822)**
Dividend Payout Ratio (DPO)	0.0115*	0.0098*	**0.0098***
	(3.0814)	(4.7574)	**(4.7776)**
Dividend Yield (DY)	0.4091	-1.3465*	**-1.2195**
	(0.6050)	(-2.9201)	**(-2.6894)**
Firm Size (SIZE)	39.4297*	34.1300*	**37.3283***
	(12.1519)	(4.5949)	**(6.7234)**
Growth Opportunities (GR)	0.6370	0.0001	**0.0001**
	(0.0067)	(0.1814)	**(0.2533)**
Firm Profitability (PROF)	0.0811**	0.0356***	**0.0409***
	(2.4605)	(1.7814)	**(2.0702)**
Firm Liquidity (FLIQ)	0.3075	-0.2600	**-0.1811**
	(1.5285)	(-1.3811)	**(-1.0059)**
Firm Leverage (LEV)	0.4629*	-0.0086	**0.0430**
	(4.0672)	(-0.0894)	**(0.4643)**
R-Squared	0.3639	0.8327	**0.6724**
F-statistic (Prob)	31.63100 (0.0000)	36.7645 (0.0000)	**11.51900 (0.0000)**
Durbin Watson (DW)	0.3005	1.0180	**2.2481**
Poolability Statistic		527.6902(0.0000)	
Hausman test			13.142419 (0.0687)

Dependent Variable: shareholders' wealth (SW), significant at *1%, **5%, ***10%; () t-statistics
Source: Extract from Results presented on Appendix 3b

The results in Table 8 addressed objective one for the non-financial firms. The preferred model is the random effect technique. From the random effect model, the coefficient of determination (R-squared) value of 0.672 showed that about 67% of changes in shareholders' wealth is explained by dividend policy and host of the control variables included on the model. The result of the F-statistics (11.51900, p. 0.0000) indicates that, at least, one of the explanatory variables is statistically significant in explaining the effect of dividend policy on shareholders' wealth of the non-financial firms in Nigeria.

The coefficient of DPO (0.0098) has a positive and significant effect on shareholders' wealth while dividend yield (DY) has a negative and insignificant effect on shareholders' wealth for the non-financial sub-sector firms in Nigeria. This means that an increase in the dividend payout ratio would lead to about a 0.01% increase in shareholders' wealth.

However, among the control variables, firm size (37.3283) and firm profitability (0.0409) have a positive and significant effect on shareholders' wealth. This supposes that a unit increase in firm size will contribute approximately 37% increase in shareholders' wealth. In a similar vein, a unit increase infirm profitability result in 0.04%increase in shareholders' wealth.

On the other hand, Growth Opportunities (GR), and financial leverage have a positive but insignificant effect while firm liquidity had a negative and insignificant effect on shareholders' wealth. These variables (growth opportunities, leverage and liquidity) did not influence shareholders' wealth through dividend policies of the non-financial firms in Nigeria.

4.4.2 Dividend Policy and Stock Market Volatility

Table 9 and 10 presented the results of the effect of dividend policy on stock market volatility for the financial and non-financial firms respectively.

Table 9: Result of the effect of Dividend Policy on Share Price Volatility for financial firms

Method / Independent Variables	Pooled OLS	Fixed Effect (*Preferred Model*)	Random Effect
Constant (C)	-147.9099	**5146.869***	-147.9099
	(-0.5113)	**(5.2792)**	(-0.5750)
Dividend Payout Ratio (DPO)	41.7085***	**7.2648**	41.7085**
	(1.8589)	**(0.3419)**	(2.0906)
Dividend Yield (DY)	-12.5227**	**-1.9504**	-12.5227**
	(-2.0856)	**(-0.3138)**	(-2.3455)
Growth Opportunities (GR)	0.9889**	**0.0066**	0.9889**
	(2.1218)	**(0.0137)**	(2.3862)
Firm Leverage (LEV)	1.4524	**1.8987**	1.4524
	(0.8608)	**(0.8419)**	(0.9681)
Firm Size (SIZE)	16.0055	**-627.2892***	16.0055
	(0.3339)	**(-5.2881)**	(0.3755)
Earnings Volatility (E.Vol)	48.4578*	**35.2719***	48.4578*
	(6.5408)	**(4.0664)**	(7.3560)
Financial crises (FC)	-54.8264	**-141.9632***	-54.8264
	(-1.2792)	**(-3.4642)**	(-1.4386)
R-Squared	0.3381 (34%)	**0.5302 (53%)**	0.3381 (34%)
F-statistic (Prob)	12.8474 (0.0000)	**7.1341 (0.0000)**	12.8474 (0.0000)
Durbin Watson (DW)	0.6517	**0.6291**	0.6517
Poolability Statistic		63.0769 (0.0000)	
Hausman test			58.7554 (0.0000)

Dependent Variable: Stock Market volatility (SMV), significant at *1%, **5%, ***10%; () t-statistics
Source: Extract from Results presented on Appendix 4a

Table 10: Result of the effect of Dividend Policy on Share Price Volatility for non-financial firms

Method / Independent Variables	Pooled OLS	Fixed Effect (*Preferred Model*)	Random Effect
Constant (C)	-32966.66*	**-30844.55****	-34516.08
	(-6.9146)	**(-2.0073)**	(-4.7895)
Dividend Payout Ratio (DPO)	4.4408*	**4.0203***	4.0888*
	(5.6737)	**(6.9937)**	(7.1307)
Dividend Yield (DY)	72.8074	**-204.4007**	-114.5241
	(0.5196)	**(-1.5612)**	(-0.9347)
Growth Opportunities (GR)	-0.0063	**-0.0042**	0.0062
	(-0.0326)	**(-0.0281)**	(0.0419)
Firm Leverage (LEV)	74.6657*	**2.2284**	32.6384
	(3.1252)	**(0.0833)**	(1.3830)
Firm Size (SIZE)	4492.153*	**4997.107****	5194.187*
	(6.6342)	**(2.3352)**	(5.1384)
Earnings Volatility (E.Vol)	42.2076*	**14.9026***	21.8499*
	(9.3521)	**(3.8167)**	(5.8377)
Financial crises (FC)	-969.5728	**-937.0146**	-943.6154
	(-1.0289)	**(-1.3317)**	(-1.3674)
R-Squared	0.3805 (38%)	**0.7072**	0.2388
F-statistic (Prob)	33.9621 (0.0000)	**17.8361 (0.0000)**	17.3478 (0.0000)
Durbin Watson (DW)	0.62303	**1.1909**	0.9523
Poolability Statistic		360.303048 (0.0000)	
Hausman test			50.9335 (0.0000)

Dependent Variable: Stock Market volatility (SMV), significant at *1%, **5%, ***10%; () t-statistics
Source: Extract from Results presented on Appendix 4b

Each of the Tables shows the results for pooled OLS regression, Fixed Effect and Random Effect Models. The Chow test and Hausman Test were used to selecting the preferred model of the analyses.

The result in Table 9 for poolability test rejected the null hypothesis that the pooled OLS is preferred, and the Hausman test rejected the null hypothesis that the Random effect model is preferred. Thus, the Fixed effect is the most preferred model to explain the effect of dividend policy on the stock market volatility of the financial firms in Nigeria.

The fixed effect model in Table 9 showed that dividend policy variables explained 53% of changes in stock market volatility among financial firms quoted on the Nigerian Stock Exchange. The F-statistics (7.1341, p. 0.0000) show that at least one of the explanatory variables of dividend policy has an effect on stock market volatility. Although the dividend payout ratio (DPO) and dividend yield (DY) had a positive and negative effect on stock market volatility, respectively, the coefficients were not statistically significant. This implies that dividend policy variables (DPO and DY) do not have a significant effect on the stock market volatility of the financial firms.

The coefficient of the control variables indicates that growth opportunities (GR), and financial leverage (LEV) do not have statistically significant effects on stock market volatility. Further results show that firm size (-627.2892) and financial crisis (-141.9632) have significant negative effects on stock market volatility while earnings volatility (35.2719) has a significant positive effect on stock market volatility for the financial firms. The results show that stock market volatility can be reduced by 627 units by a unit increase in firm size. Likewise, an increased financial crisis can reduced stock market volatility by 142 units. Further results show that a unit increase in earnings volatility will result in a 35% increase in stock market volatility.

Also, the results in Table 10 for poolability test rejected the null hypothesis that the pooled OLS is preferred; and the Hausman test rejected the null hypothesis that the Random effect model is preferred. Thus, the Fixed effect is the most preferred model to explain the effect of dividend policy on the stock market volatility of non-financial firms in Nigeria.

The fixed effect model (F-statistics, 17.8361, p. 0.0000) was significant at 1% level and, about 71% (R-Squared: 0.7072) of the total variations in stock market volatility were accounted for by dividend policy variables of DPO, DY, GR, LEV, SIZE, E.Vol and FC.

The estimated coefficients of DPO (4.0203) was statistically significant indicating that one unit increase in dividend payout ratio would result in about a 4% increase in stock market volatility. Dividend yield had a negative but insignificant effect on stock market volatility.

Furthermore, the coefficients of the control variables such as Growth Opportunities, Financial Crises were negative and statistically not significant; Leverage was positive but insignificant, while Size (4997.107), and Earnings Volatility (14.9026) were positive and statistically significant at 5% and 1% respectively. The results imply that a unit increase in firm size will result in 4997% increase in stock market volatility while a unit increase in earnings volatility would lead to 15% increase in stock market volatility of the non-financial firms quoted on the Nigerian Stock Exchange.

4.4.3 Dividend Policy and Stock Market Liquidity

The effect of dividend policy on stock market liquidity is shown in Tables 11 and 12 for the financial and non-financial firms respectively. The results in Tables 11 and 12 for poolability test rejected the null hypothesis that the pooled OLS is preferred, and the Hausman test rejected the null hypothesis that the Random effect model is preferred. Thus,

the Fixed effect is the most preferred model to explain the effect of dividend policy on the stock market liquidity of the financial and non-financial firms in Nigeria.

The fixed effect model on Table 11 showed that 37% (R-squared: 0.369) of the variations in stock market liquidity can be significantly (F-statistics, 3.8755, p. < 0.05), explained by dividend policy model. This suggests that at least one of the explanatory variables (DPO, DY, SIZE, IO, LEV and PROF) has stat6istically significant effect on stock market liquidity for firms in the financial service sub-sector of the Nigerian Stock Exchange.

The coefficient of DPO had a positive but insignificant effect on stock market liquidity; while DY (0.1051) was positive and statistically significant at 1% on stock market liquidity. This indicates that a unit increase in dividend yield (DY) would lead to about 0.11 unit of increase in stock market liquidity.

Further results on financial firms showed that firm size (-1.1768) and financial leverage (-0.0434) had a negative and significant effect on stock market liquidity. This means that a unit increase on firm size would result in 1.2% reduction in stock market liquidity, while a unit increase in financial leverage leads to 0.4% decrease in liquidity of the stock of the financial services sub-sector traded on the Nigerian Stock Exchange. However, investment opportunities were a positive but not statistically significant while, firm profitability was negative and insignificant.

For the non-financial firms, the effect of dividend policy on stock market liquidity was addressed using Table 12. From the fixed effect model, the coefficient of determination (R-squared) was 0.8364 and statistically significant at 1% (F-statistics 38.6849, p. 0.0000). This implies that dividend policy explained 84% of the variations in the stock market liquidity of the non-financial firms.

Table 11: Result of the effect of Dividend Policy on Stock Market Liquidity for financial firms

Method Independent Variables	Pooled OLS	Fixed Effect (*Preferred Model*)	Random Effect
Constant (C)	2.7069**	**13.1489***	2.5813
	(2.2418)	**(3.3218)**	(1.8462)
Dividend Payout Ratio (DPO)	0.1097	**0.0861**	0.1209
	(1.1322)	**(0.9115)**	(1.3233)
Dividend Yield (DY)	0.0822*	**0.1051***	0.0855*
	(3.1162)	**(3.7872)**	(3.3306)
Firm Size (SIZE)	-0.1738	**-1.1768***	-0.1025
	(-0.8744)	**(-2.4469)**	(-0.4652)
Investment Opportunities (IO)	0.3523**	**0.1024**	0.3224**
	(2.1302)	**(0.6076)**	(2.0882)
Financial Leverage (LEV)	-0.0134***	**-0.0434***	-0.0197**
	(-1.8229)	**(-4.1934)**	(-2.4813)
Firm Profitability (PROF)	-0.0001	**-0.0023**	-0.0014
	(-0.0511)	**(-0.7024)**	(-0.4492)
R-Squared	0.1590	**0.3690**	0.1625
F-statistic (Prob)	5.5774 (0.0000)	**3.8755 (0.0000)**	5.7266 (0.0000)
Durbin Watson (DW)	1.3122	**1.7279**	1.4673
Poolability Statistic		52.8830 (0.0000)	
Hausman test			18.1404 (0.0059)

Dependent Variable: Stock Liquidity (SLIQ), significant at *1%, **5%, ***10%; () t-statistics

Source: Extract from Results presented on Appendix 5a

Table 12: Result of the effect of Dividend Policy on Stock Market Liquidity for non-financial firms

Method Independent Variables	Pooled OLS	Fixed Effect (*Preferred Model*)	Random Effect
Constant (C)	0.1767	**11.8860***	0.4819
	(0.0936)	**(1.7231)**	(0.1858)
Dividend Payout Ratio (DPO)	-0.0001	**0.0002**	0.0001
	(-0.5733)	**(1.0822)**	(0.2089)
Dividend Yield (DY)	0.8354	**0.6559***	0.7788
	(14.8017)	**(11.314)**	(15.0103)
Firm Size (SIZE)	-0.6099**	**-1.7156***	-0.4119
	(-2.2499)	**(-1.8082)**	(-1.1302)
Investment Opportunities (IO)	3.7199*	**1.7817***	2.8890*
	(25.1954)	**(8.6367)**	(18.4890)
Financial Leverage (LEV)	-0.0215**	**-0.0211***	-0.0233**
	(-2.2318)	**(-1.7779)**	(-2.3686)
Firm Profitability (PROF)	0.0049***	**0.0021**	0.0036
	(1.7447)	**(0.8803)**	(1.5377)
R-Squared	0.7018	**0.8364**	0.5239
F-statistic (Prob)	152.1957 (0.0000)	**38.6849 (0.0000)**	71.1835 (0.0000)
Durbin Watson (DW)	1.3657	**1.8585**	1.5883
Poolability Statistic		237.1919 (0.0000)	
Hausman test			86.4011 (0.0000)

Dependent Variable: Stock Liquidity (SLIQ), significant at *1%, **5%, ***10%; () t-statistics

Source: Extract from Results presented on Appendix 5b

The coefficient of DPO was a positive but not statistically significant while, dividend yield (0.6559) had a significant positive effect on stock market liquidity of the non-financial firms. This means that a unit increase in dividend yield (DY) would lead to a 0.66%

increase in stock market liquidity for the non-financial firms quoted on the Nigerian Stock Exchange.

Firm size (-1.7156) and financial leverage (-0.0211) were found to be negative and significant at the 10% level of significance. However, investment opportunities (1.7817) was positive and statistically significant at 1% level of significance, while firm profitability was positive but not statistically significant. The results are suggestive that, at 90 confidence level, a unit increase in firm size and financial leverage could result in a fall in stock market liquidity by 1.7% and 0.02% respectively. However, a unit increase in investment opportunities would lead to a 1.8% increase in stock market liquidity. These results mean that firm size, financial leverage and investment opportunities are strong moderating variables to a dividend policy of the non-financial service firms in Nigeria.

4.4.4 Dividend Policy and Firm Profitability

The results presented in Tables 13 and 14 pertains to the effect of dividend policy on firm profitability. The results in Table 13 is for the financial firms while Table 14 is for the non-financial firms. The results on Tables 13for poolability test rejected the null hypothesis that the pooled OLS is preferred; while Hausman test accepted the null hypothesis that the Random effect model is preferred. Thus, the random effect is the most preferred model to explain the effect of dividend policy on the firm profitability of the financial firms in Nigeria.

The random effect model showed that dividend policy explained only 6% of the variations in firm profitability among the financial firms in Nigeria. The F-statistic was significant at the 10% level implying that the overall model specification was statistically significant. The coefficient of DPO and DY are negative but not statistically significant. This implies

that dividend policy variables do not have a significant effect on the firm profitability of financial firms in Nigeria.

Table 13: Result of the effect of Dividend Policy on Firm Profitability for financial firms

Method Independent Variables	Pooled OLS	Fixed Effect	Random Effect (*Preferred Model*)
Constant (C)	-89.1441*	-156.7546	**-99.4557***
	(-3.4004)	(-1.6161)	**(-3.1214)**
Dividend Payout Ratio (DPO)	-0.2848	-0.4297	**-0.4361**
	(-0.1311)	(-0.1949)	**(-0.2046)**
Dividend Yield (DY)	0.1505	-0.6512	**-0.2275**
	(0.2548)	(-1.0039)	**(-0.3795)**
Firm Size (SIZE)	14.1333*	23.3303**	**15.9767***
	(3.2673)	(1.9924)	**(3.1843)**
Growth Opportunities (GR)	-0.0057	0.01836	**0.0024**
	(-0.1203)	(0.3656)	**(0.0527)**
Investment Opportunities (IO)	4.4957	4.4814	**4.2273**
	(1.1712)	(1.1241)	**(1.1274)**
Financial Leverage (LEV)	-0.4075**	-0.4876**	**-0.4549***
	(-2.5107)	(-2.0425)	**(-2.4824)**
R-Squared	0.0893	0.2599	**0.0671**
F-statistic (Prob)	2.8959 (0.0102)	2.3268 (0.0010)	**2.1235 (0.0528)**
Durbin Watson (DW)	1.9580	2.3577	**2.1653**
Poolability Statistic		38.1561 (0.0037)	
Hausman test			3.9394 (0.6849)

Dependent Variable: Firm Profitability (PROF), significant at *1%, **5%, ***10%; () t-statistics
Source: Extract from Results presented on Appendix 6a

Table 14: Result of the effect of Dividend Policy on Firm Profitability for non-financial firms

Method Independent Variables	Pooled OLS	Fixed Effect (*Preferred Model*)	Random Effect
Constant (C)	-27.9211	**218.3565**	-27.5321
	(-0.8301)	**(1.4522)**	(-0.8308)
Dividend Payout Ratio (DPO)	0.0036	**0.0084**	0.0038
	(0.6438)	**(1.5192)**	(0.7054)
Dividend Yield (DY)	0.7775	**-0.4824**	0.7357
	(0.7716)	**(-0.3793)**	(0.7535)
Firm Size (SIZE)	3.0767	**-25.4305**	3.1580
	(0.6367)	**(-1.2285)**	(0.6639)
Growth Opportunities (GR)	-0.0006	**-0.0009**	-0.0007
	(-0.4835)	**(-0.6219)**	(-0.5107)
Investment Opportunities (IO)	11.9344	**8.0832***	11.908*
	(4.5644)	**(1.7492)**	(4.6629)
Financial Leverage (LEV)	-0.0200	**-0.6065***	-0.0341
	(-0.1164)	**(-2.3446)**	(-0.2029)
R-Squared	0.0587	**0.2236**	0.0568
F-statistic (Prob)	4.0359 (0.0000)	**2.1798 (0.0000)**	3.8950 (0.0008)
Durbin Watson (DW)	2.0017	**2.2914**	2.0145
Poolability Statistic		76.1008 (0.0005)	
Hausman test			36.5357 (0.0000)

Dependent Variable: Firm Profitability (PROF), significant at *1%, **5%, ***10%; () t-statistics
Source: Extract from Results presented on Appendix 6b

Although the coefficient of growth opportunities and investment opportunities were positive, they are not statistically significant in explaining the effect of dividend policy on firm profitability. Further results showed that firm size (15.9767) was positive and statistically significant at 1% while, financial leverage was negative and statistically significant at the 5% level. The results suggest that a unit increase in firm size would lead to about 16% increase in firm profitability while a unit increase in financial leverage will bring about 0.46% fall in firm profitability for firms in the financial service sub-sector of the Nigerian Stock Exchange.

For the non-financial firms, the poolability test rejected the null hypothesis that the pooled OLS is preferred; and the Hausman test rejected the null hypothesis that the Random effect model is preferred. Thus, the Fixed effect is the most preferred model to explain the effect of dividend policy on the firm profitability of the non-financial firms in Nigeria.

The fixed effect model showed that dividend policy significantly (F: 2.1798; P. 0.0000) explained 22% of the variations in firm profitability of the non-financial firms in Nigeria. The DPO was positive but not statistically significant, and DY was negative but not statistically significant. This indicates that dividend policy variables did not have a significant effect on firm profitability among the non-financial firms in Nigeria.

The coefficient of firm size and growth opportunities are negative but do not have a significant effect on firm profitability. Moreover, investment opportunities (8.0832) had a positive and significant effect on firm profitability such that a unit increase in investment opportunities of firms would lead to 8.1% increase in firm profitability among non-financial service firms in Nigeria. However, a financial leverage had a negative and significant effect on firm profitability. This implies that a unit increase in the financial

leverage of firms would lead to 0.61% decrease in profitability of the non-financial services firms in Nigeria.

Table 15: Synopsis of the findings

Variables	Shareholders' Wealth		Stock volatility		Stock liquidity		Firm Profitability	
	Fin	Non-Fin	Fin	Non-Fin	Fin	Non-Fin	Fin	Non-Fin
Model Effect	70%*	67%*	53%*	71%*	37%*	84%*	7%***	22%*
DPO	+	+*	+	+*	+	+	-	+
DY	-	-	-	-	+*	+*	-	-
SIZE	+*	+*	-*	+**	-*	-***	+*	+
GR	+**	+	+	-			+	-
PROF	+	+**			-	+		
FLIQ	+	-						
LEV	+	+	+	+	-*	-***	-**	-**
E.Vol			+*	+*				
IO					+	+*	+	+***
FC			-*	-				
Model	FE	RE	FE	FE	FE	FE	RE	FE
Hypotheses Testing	Accepted	Rejected	Accepted	Rejected	Rejected		Accepted	

Note: * denotes significant at 1%, ** denotes significant at 5%; *** denote significant at 10%.

4.5 Hypotheses testing

The hypotheses are tested at 0.05 level of significance. The hypotheses are justified, separately for the financial and the non-financial firms.

Ho_1: Dividend policy does not have significant effect on shareholders' wealth.

From Table 15, the model effect was 70% for the financial firms and 67% for the non-financial firms, indicating that at least one of the model variables (dividend policy and control) have a significant effect.

To justify the hypothesis, none of the dividend policy variables was significant in the financial firms, thus the researcher did not reject the null hypothesis for financial firms. For the non-financial firms, the dividend payout was significant at 1%, thus the researcher rejected the null hypothesis for the non-financial firms.

Decision:

1. Dividend policy does not have a significant effect on shareholders wealth of the financial firms quoted on the Nigeria Stock Exchange.

2. Dividend policy has a significant effect on shareholders wealth of the non-financial firms quoted on the Nigeria Stock Exchange.

H$_{O2}$: Dividend policy does not have significant effect on firms' stock market price volatility.

From Table 15, the model effect was 53% for the financial firms and 71% for the non-financial firms, indicating that at least one of the model variables (dividend policy and control) have a significant effect on stock market volatility.

To justify the hypothesis, none of the dividend policy variables was significant in the financial firms, thus the researcher did not reject the null hypothesis for financial firms. For the non-financial firms, the dividend payout was significant at 1%, thus the researcher rejected the null hypothesis for the non-financial firms.

Decision:

1. Dividend policy does not have a significant effect on the stock market volatility of the financial firms quoted on the Nigeria Stock Exchange.

2. Dividend policy has a significant effect on the stock market volatility of the non-financial firms quoted on the Nigeria Stock Exchange.

H$_{O3}$: Dividend policy does not have significant effect on firms' stock liquidity.

From Table 15, the model effect was 37% for the financial firms and 84% for the non-financial firms, indicating that at least one of the model variables (dividend policy and control) have a significant effect on stock market liquidity.

To justify the hypothesis, the dividend yield was significant at 1%, in both the financial and non-financial firms, thus the researcher rejected the null hypothesis.

Decision: Dividend policy has a significant effect on stock market liquidity of both the financial and non-financial firms quoted on the Nigeria Stock Exchange.

Ho4: Dividend policy does not have a significant effect on firm profitability.

From Table 15, the model effect was 7% for the financial firms and 22% for the non-financial firms; indicating that at least one of the model variables (dividend policy and control) have a significant effect on firm profitability. To justify the hypothesis, the results showed that none of the dividend policy variables, was significant at 5%, in both the financial and non-financial firms, thus the researcher rejected the null hypothesis.

Decision: Dividend policy has a significant effect on the firm profitability of both the financial and non-financial firms quoted on the Nigeria Stock Exchange.

4.6 Discussion of Findings

The discussion of the findings were done along the line of the objectives of the study.

4.6.1 Effect of Dividend Policy on Shareholders' Wealth

The study has shown that dividend policy variables (dividend payout and dividend yield) did not have a significant contribution to shareholders' wealth for the financial services firms in Nigeria. This means that the financial services sub-sector cannot employ dividend policies to improve their shareholders' wealth. These results tend to suggest that the MM theory of dividend policy applies in the financial services sub-sector of the Nigerian Stock Exchange. Thus, dividend policy was seen as irrelevant financial decisions for firms in the Nigerian financial services sectors. Thus firms in the financial services sub-sector can only

improve its shareholders' wealth by enhancing its earning power and effectively managing its business risks. The results invariably provided support for the MM theory of irrelevant dividend policy.

In Nigeria, Anike (2014) study on dividend policy and shareholders' wealth nexus in the commercial banking sector found a mixed result wherein dividend yield had a significant negative impact on shareholders' wealth but dividend payout had no effects. Further disagreement with the present finding is the work of Duke, *et al* (2015) carried out using two Nigerian banks (GTBank and United Bank for Africa) spanning from 2003 to 2013 and found that dividend yield had a positive effect on shareholders' wealth. Other studies (Adeleke, *et al*, 2013; Omoregie, *et al*, 2016; Simon-Oke, *et al*, 2016) conducted on Nigerian banks using the dividend per share as a proxy for dividend policy showed a positive effect on shareholders' wealth. These studies would confirm that there is still no consensus on the effect of dividend policies on shareholders' wealth in the financial sub-sector of the Nigerian Stock Exchange.

However, the present findings in Nigeria that dividend policy is irrelevant in enhancing shareholders' wealth is not supported by studies undertaken in other developing stock markets in African and Asia. For instance, in Kenya, it was found that dividend yield (Mokaya, *et al*, 2013) and dividend payout (Luvembe, *et al*, 2014), had a significant effect on firm value of commercial banks quoted in the National Stock Exchange of Kenya. This was equally supported by studies on commercial banks listed in the Dhaka Stock Exchange (DSE), Bangladesh (Al Masum, 2014) and banks in Pakistan (Iqbal, *et al*, 2014).

For the non-financial services sub-sectors, the dividend payout ratio had a positive and statistically significant effect on the firms' market capitalisation. This suggests that higher payout ratio is capable of engendering improved valuation of the firms' share and hence

enhanced shareholders' wealth. However, despite that the payout ratio can increase share prices, the expected increases in share prices would not translate into an improved dividend yield to investors of non-financial services firms. A number of studies in the non-financial service sub-sector of Nigerian Stock Exchange confirmed that dividend policies proxied by payout (Oyinlola, *et al*, 2014), dividend per share (Garba, 2014; Ordu, *et al*, 2014; Sulaiman, *et al*, 2015), and a host of survey studies including Dada, *et al*, (2015) and Ozuomba, *et al* (2016) showed positive effect on shareholders' wealth in Nigeria. These studies supported the dividend relevance proponents which averred that dividend policy would influence shareholders' wealth such that increase in dividend policy is expected to send a positive signal that the firms have prospects. The reactions to such signals would engender positive evaluation of the firm fundamentals about the shares of the firm and hence results in higher pricing and improved shareholders' wealth. Some Nigerian studies including Ezejiofor, *et al* (2014), Ordu, *et al* (2014), and Alayemi (2013) had supported the irrelevancy of dividend policy on shareholders' wealth. This supposes that the dividend policy nexus on shareholders' wealth for non-financial firms in Nigeria is still not resolved even by this present study.

The very recent study from Waworuntu and Claudy (2017) from Indonesia corroborated the findings of this study that dividend payout ratios have a significant positive relationship with share prices, whereas dividend yield had an insignificant effect. However, conflicting results of studies in South Africa (Nicol, 2013 and de Wet & Mpinda, 2013) and Pakistan (Arslan, *et al*, 2014) claim that dividend yield has positive effect on shareholder' wealth. In Sri Lanka, both dividend payout and dividend yield were found to have no effect on market values (Ugvdd, *et al*, 2015); whereas Bilal and Jamil (2015)posited that dividend yield was positive but insignificantly associated with a stock price in Oman. These mixed and conflicting results confirmed that dividend policy is just not country-specific, but that

industry as well as firm characteristics moderates the nature and degree of the relationship between dividend policies and shareholders wealth.

4.6.2 Effect of Dividend Policy on Stock Market Volatility

The findings on objective two revealed that dividend policy variables (dividend payout and dividend yield) did not have a significant effect on the stock market volatility of the financial services firms. This means that firms in the financial services sub-sector cannot employ dividend policies to manage their stock market volatility. The study supports the MM theory of dividend irrelevance that no firm can employ dividend payment as a strategy to influence its stock market volatility.

The present findings that dividend policy variables including dividend payout and dividend yield do not influence stock market volatility, disagrees with existing studies in Nigeria (Ajayi, *et al*, 2015) and Pakistan (Nazir, *et al*, 2011). According to these studies, dividend payout had a positive effect on stock market volatility of banks quoted on Nigerian Stock Exchange (Ajayi, *et al*, 2015), whereas, both dividend payout and yield had negative effects on price volatility among 75 financial sectors listed firms in Karachi Securities Exchange from 2006 to 2010 in Pakistan (Nazir, *et al*, 2011). Other Nigerian based empirical studies that employed dividend pay-out and yield as proxies of dividend policy in a grouped firms (financial and non-financial) studies could not confirm the present findings. Among these studies is the work of Wodung (2014) that found both payout and yield having significant negative effects on stock volatility.

For the non-financial services firms, however, dividend payout had a positive effect on stock market volatility, while yield was negative but insignificant. This aligns with the empirical report from studies in Nigeria (Egbeonu, *et al*, 2016) and, Malaysia (Zakaria, *et al*, 2012) wherein dividend payout was a positive and significant while, yield was negative

and insignificant. This means that an increased dividend payout would cause more stock market volatility thereby heightening the riskiness of the stock firms' shares traded. The findings of this study are inconsistent with the dividend theory of the bird-in-the-hand, which expected that a high dividend paying firm would reduce the risk or limit uncertainty about future income flows for shareholders.

4.6.3 Effect of Dividend Policy on Stock Market Liquidity

Objective three showed that dividend policy dividend payout ratio has a positive but insignificant effect on stock liquidity in both the financial and non-financial firms in Nigeria. However, the dividend yield was found to have a significant positive effect in both sectors. Generally, all the explanatory variables including dividend payout, dividend yield, firm size, profitability, financial leverage and investment opportunities accounted for 37% and 84% of the stock market liquidity of the financial and non-financial firms respectively. The study further showed that firm size and financial leverage is the main moderating variables (adverse) to dividend policy effects on stock liquidity in both the financial and non-financial firms in Nigeria. These results explained that at least one of the dividend policy variables enhances stock liquidity in Nigeria. Improved dividend yields would tend to encourage stock liquidity among the shares traded (from financial and non-financial services firms) on the Nigerian Stock Exchange. This result is in line with the signalling theory of dividend policy which posits that dividend payment sends a positive message about the firm and spurs trading and hence higher market price per share.

Previous studies reported a direct opposite of the present findings. For instance, studies in developed stock markets (Banerjee, *et al*, 2005; Griffin, 2010; Gul, *et al*, 2015; Michaely, *et al*, 2017) showed that dividend payment has an inverse relationship with stock liquidity. However, Iranian study (Seyedkkhosroshahi, *et al*, 2013) reported that dividend payment is not related to stock liquidity.

4.6.4 Effect of Dividend Policy on Firm Profitability

Both dividend payout and dividend yield were found to have no significant effect on firm profitability. Although dividend payout was insignificant, it has a negative relationship in financial firms and positive relationship for the non-financial firms; whereas dividend yield was negative in both financial and non-financial firms. The implication of the findings is that dividend policy would not affect the profitability of firms in both the financial services and non-financial services sub-sectors of the Nigerian Stock Exchange. The 7% and 22% explanatory powers to firm profitability showed that dividend policy is negligible in determining firm profitability in Nigeria. Hence, this study posits that dividend policy has no effect on the profitability of all firms quoted on the Nigerian Stock Exchange. In Nigeria, the work of Akani, *et al* (2016) supported this finding. This research further confirms that the MM theory of dividend policy irrelevance is obtainable in the relationship between dividend and the profitability of Nigerian quoted firms. This follows that firms cannot enhance its profit base by taking any dividend stance. Thus, firm profitability can only improve through firm-specific characteristics such as firm size, leverage and investment opportunities.

Extant studies from both the financial services sub-sector (Ashamu, *et al*, 2008; Abiola, 2014) and the non-financial services sub-sector (Ebiringa, *et al*, 2014; Enekwe, *et al*, 2015; Ehikioya, 2015; Abdul, *et al*, 2015; Kajola & Adewumi, 2016; Osamwonyi & Lola-Ebueku, 2016; Eniola, *et al*, 2016) in Nigeria found that dividend policies have positive effects on firm profitability. This confirms that dividend policy relevance to firm profitability is not conclusive. This inconclusiveness also exists in Ghana where Agyei, *et al* (2011) and Onanjiri, *et al* (2014) found that dividend policy (DPO) have a positive effect on firm profitability whereas Amidu (2007) reported a conflicting findings using return on assets (positive effect), and return on equity (negative effect) on dividend payout. Such

mixed findings was equally found in the work of Khan, et al (2016) wherein dividend policy was positive for ROA and ROE and negative for Tobin's Q, whereas dividend payout ratio was negative for ROA and ROE and positive for Tobin's Q. This suggests that effect of dividend policy on firm profitability can be affected by the proxy used.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of Findings

The objective of the study is to empirically examine the effect of dividend policy on firm performance with specific objectives consisting effects of dividend policy on shareholders' wealth, stock market volatility, stock market liquidity and firm profitability of the financial services and non-financial services firms quoted on the Nigerien Stock Exchange. The study was carried out on 60 firms (19 financial and 41 non-financial) within a period of eleven (11) years from 2006 to 2016. The analyses carried out included pooled OLS regression, fixed effect, and random effect models while Chow and Hausman tests were used to determine the most suitable model for result interpretation.

For objective one, it was found that dividend policy and its control variables accounted for 70% and 67% of the variation in shareholders' wealth of the financial services and non-financial services sub-sector of the Nigerian Stock Exchange. For the financial services firms, none of the dividend policy variables (dividend payout and dividend yield) had a significant contribution to shareholders' wealth; while dividend payout had a positive and significant effect on shareholders' wealth in the non-financial services firms. The moderating variables of a dividend policy that can influence shareholders' wealth in the financial services firms are positive effects of the firm size and growth opportunities while the positive effect of firm size and profitability drives dividend policy influence in the non-financial services sub-sector.

For the second objective, dividend policy and its control variables accounted for 53% and 71% of variations in stock market volatility for the financial services and non-financial services firms respectively. It is thereby clear that dividend policy variables (dividend payout and dividend yield) did not have a significant effect on the stock market volatility of

the financial services firms. For the non-financial services firms, however, dividend payout had a positive effect on stock market volatility. The possible moderating variables of dividend policy for the financial services firms are the negative effects of firm size and financial crises and the positive effect from earnings volatility of the firms. For the non-financial services firms, firm size and earnings volatility had a positive effect on stock market volatility.

For the third objective, dividend policy variables and their moderating firm-specific variables tend to explain 37% and 84% of the stock market liquidity of the financial and non-financial firms respectively. Dividend payout was found to have a positive but insignificant effect on stock liquidity in both the financial and non-financial services sub-sectors, while dividend yield had a significant positive effect on both sectors. The moderating variables of dividend policies such as firm size and financial leverage had a negative effect on the liquidity of both the financial and non-financial firms in Nigeria.

In objective four, the results of the dividend policy effect on firm profitability showed that dividend policy and its control variables explained 7% and 22% of the changes in the profitability in the financial and non-financial services sectors respectively. However, both dividend payout and dividend yield did not have a significant effect on the profitability of the financial and non-financial firms quoted on the Nigerian Stock Exchange.

5.2 Conclusion

Overall, dividend policy was not significant on the firm profitability of Nigerian quoted firms despite that it contributed in reasonable measures to shareholders' wealth and stock volatility of the non-financial services firms from the dividend payout, and to the stock liquidity of both the financial and non-financial services, firms from dividend yields. The results proved that the dividend policy effect is not an all-firm, all-season bound policy.

That the present study conflicts with the previous studies on some points and variables indicate that the use of dividend policy is a professional practice that must be manipulated with some level of errors to positively influence some performance.

5.3 Recommendations

The following recommendations were made in line with the findings from each of the specific objectives of the study:

1. The Management of firms in the non-financial services sector in Nigeria should consider their firm size and profitability in designing dividend policy aimed at enhancing its shareholders' wealth.

2. Also, for the non- financial services firms, because the firm size and profitability drive dividend policy influence in the non-financial services sub-sector, firm size and earnings volatility should be factored into dividend policies aimed at stabilising stock market volatility.

3. Investors in the firms in the financial services sub-sector should ignore dividend policies, in share pricing and evaluation of stock riskiness.

4. In a situation that dividend yield contributed significantly to the stock market liquidity of the quoted firms (both financial and non-financial) in Nigeria, there is the need for management of Nigerian firms to strategies dividend policies that enhance investors return from dividend payments. To achieve this, firms should factor in such firm-specific characteristics as size and financial leverage. Small size and low levered firms would have to pay high dividend amount in order to engender confidence in its shares and encourage its liquidity.

5. This study further recommends that management should focus on corporate effectiveness and efficiency to enhance its profitability, as profitability cannot be

improved by merely taking decisions on what and how much of previous profits that are shared to equity holders.

5.4 Contribution to Knowledge

The major gap filled by this study borders on understanding the moderating effect of industry characteristics on the effect of dividend policy on firm performance as suggested by Khan (2010). The present study showed that dividend policy effects vary between financial and non-financial services firms in Nigeria. This kind of issue was not addressed in most studies in Nigeria. The present study is novel in this direction.

5.5 Suggestions for Further Studies

In this study, the effects of dividend policy on firm performance have been moderated for firm-specific factors such as size, leverage, earnings volatility, firm liquidity, financial crises, profitability, growth and investment opportunities. Further studies may wish to attempt to incorporate some other determinant factors such as business risk, cash flow, ownership characteristics and firm's age.

The proxies for each of the dependent variables of four models developed for the study can be computed using other measures or other alternative measures adopted for further studies. For instance, the present study used popular Market Price per Share to measure shareholders' wealth, yet earnings per share, Economic Value Added (EVA), Earnings before Interest and Tax (EBIT) and Market Value Added (MVA) can equally be used. This may produce a different result and comparison can be made to identify the best measurement in building a robust shareholders' wealth, stock volatility, stock liquidity and firm profitability models.

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APPENDIX 1:

Data on the Sixty Firms Studied

Appendix 1a: List of 19 Financial Firms and Data (variables) Collected

SN	Company	Year	MPS	Stock Market Volatility (SMV)	Return on Equity (PROF)	Turnover Ratio (SLIQ)	DPO	DY	SIZE	Cash to Asset Ratio (FLIQ)	Debt to Total Asset (LEV)	Revenue Growth (GR)	Tobin's Q (IO)	E.Vol.	Financial Crises
1	Access Bank	2016	4.83	23.33	15.72	0.46	0.22	9.37	9.54	20.49	86.95	19	0.92	6.25	0
		2015	5.5	30.25	17.91	0.59	0.20	10.89	9.41	18.46	85.81	17.46	0.91	7.02	0
		2014	8.35	69.72	15.52	0.65	0.32	9.14	9.32	19.25	86.82	21.21	0.94	3.53	0
		2013	10.55	111.30	15.34	1.06	0.52	8.59	9.26	23.94	86.78	-11.7	0.99	2.53	0
		2012	6.92	47.89	18.61	0.72	0.28	5.43	9.24	23.22	86.19	64.93	0.99	2.96	1
		2011	7.28	53.00	7.8	0.55	0.58	11.71	9.21	1.65	88.21	52.34	0.93	0.90	1
		2010	8.69	75.52	6.31	0.44	0.32	2.18	8.91	3.16	78.21	-1.02	0.99	0.40	1
		2009	7.03	49.42	2.61	1.64	-2.58	8.82	8.84	9.31	75.74	63.4	0.94	0.07	1
		2008	16.02	256.64	9.22	0.27	0.18	4.26	9.02	3.33	83.56	140.78	0.9	2.92	0
		2007	13.96	194.88	21.43	0.89	0.00	0	8.52	48.21	91.36	26.45	1.35	0.76	0
		2006	11.43	130.64	34.23	1.23	0.62	3.34	4.34	12.23	67.56	34.34	1.23	1.51	0
2	Consolidated Hallmark	2016	0.5	0.25	4.43	0.81	0.33	2	6.87	24.68	40.84	-2.85	0.81	0.00	0
		2015	0.5	0.25	12.79	1.71	0.22	4	6.85	40.19	39.23	25.58	0.82	0.01	0
		2014	0.5	0.25	5.02	0.32	0.00	0	6.79	37.47	37.41	12.7	0.86	0.00	0
		2013	0.5	0.25	-5.41	2.92	-1.00	6	6.79	36.87	40.83	8.22	0.89	0.00	0
		2012	0.5	0.25	9.44	1.8	0.29	4	6.82	27.81	37.3	-1.11	0.82	0.00	1
		2011	0.5	0.25	3.92	0.32	0.00	0	6.78	23.85	35.64	35.96	0.85	0.00	1
		2010	0.5	0.25	4.74	0.23	0.00	0	6.74	3.24	23.71	-5.62	0.79	0.00	1
		2009	0.64	0.41	6.11	6.01	1.25	10	6.7	2.87	20.4	16.68	0.81	0.00	1
		2008	0.67	0.45	5.67	4.34	0.67	6.45	2.34	5.4	23.23	12.43	0.67	0.45	0
3	Cornerstone Insurance	2016	0.5	0.25	-16.84	0.33	0.00	0	7.33	14.43	51.93	18.78	0.86	0.01	0
		2015	0.5	0.25	13.51	0.84	0.09	2.4	7.32	31.13	42.43	37.26	0.78	0.01	0

No.	Bank	Year													
		2014	0.54	0.29	12.2	0.87	0.00	0	7.16	21.18	46.62	12.21	0.77	0.01	0
		2013	0.53	0.28	12.46	0.54	0.00	0	7.15	25.15	51.22	2.16	0.86	0.01	0
		2012	0.5	0.25	8.47	0.34	0.00	0	7.09	22.56	50.5	44.32	0.87	0.00	1
		2011	0.5	0.25	-5.14	0.34	0.00	0	7.04	14.36	50	-6.94	0.9	0.00	1
		2010	0.63	0.40	6.65	0.23	0.00	0	7.02	21.22	42.86	-10.53	0.85	0.00	1
		2009	1.01	1.02	-7.91	0.45	0.00	0	6.97	2.46	40.35	-1.21	0.89	0.00	1
		2008	4.37	19.10	-7.38	2.96	-0.60	1.87	6.95	1.18	36.37	37.34	1.94	0.00	0
		2007	2.87	8.24	4.92	1.92	0.57	0.84	6.95	2.75	26.51	1.87	2.54	0.00	0
		2006	4.34	18.84	4.34	2.23	0.09	0.98	5.45	3.42	21.23	2.34	3.23	0.29	0
4.	Diamond Bank	2016	1.57	2.46	1.54	0.65	0.00	0	9.31	16.09	88.94	-5.25	0.9	0.02	0
		2015	3.45	11.90	2.64	0.13	0.42	4.35	9.24	20.6	87.76	-2.03	0.91	0.06	0
		2014	6.25	39.06	12.19	0.22	0.17	5.08	9.29	15.59	89.19	12.58	0.94	2.76	0
		2013	6.53	42.64	20.58	0.43	0.00	0	9.18	15.03	90.87	27.39	0.98	3.88	0
		2012	3.39	11.49	20.36	0.87	0.00	0	9.07	11.22	90.78	34.78	0.96	2.53	1
		2011	5.44	29.59	-14.97	0.31	-0.15	6.92	8.85	7.81	88.22	25.97	0.93	0.83	1
		2010	7.61	57.91	1.25	0.02	0.11	0.08	8.77	4.64	82.07	-14.97	1	0.01	1
		2009	6.99	48.86	-7.7	0.2	-0.16	1.18	8.81	8.42	83.69	117.84	1	0.31	1
		2008	15.02	225.60	10.98	0.67	0.27	4.7	8.8	10.05	81.34	41.01	0.96	1.39	0
		2007	14.5	210.25	13.1	0.3	0.00	0	8.51	25.17	83.12	70.55	1.37	0.83	0
		2006	23.23	539.63	14.34	0.89	0.00	2.12	3.23	23.34	65.78	56.43	2.23	0.04	0
5	Fidelity Bank	2016	1.08	1.17	5.25	0.36	0.47	19.05	9.11	15.95	85.72	1.65	0.88	0.12	0
		2015	1.59	2.53	7.58	0.42	0.38	12	9.09	15.05	85.1	16.16	0.89	0.23	0
		2014	2.01	4.04	7.97	0.34	0.29	8.65	9.07	21.75	85.42	20.93	0.89	0.23	0
		2013	2.83	8.01	4.72	0.56	0.78	8.54	9.03	19.22	84.88	9.19	0.91	0.07	0
		2012	1.72	2.96	11.27	0.44	0.22	6.13	8.96	12.83	82.34	59.48	0.9	0.40	1
		2011	2.21	4.88	1.88	0.55	1.56	9.67	8.87	11.15	80.2	23.66	0.86	0.01	1
		2010	2.81	7.90	4.49	0.36	0.29	2.22	8.68	5.3	71.72	-21.93	0.88	0.04	1
		2009	3.16	9.99	1.11	1.72	6.00	12.65	8.7	4.92	74.44	70.29	0.88	0.00	1
		2008	8.25	68.06	9.73	0.49	0.20	1.93	8.73	5.77	74.38	85.19	1	0.21	0

#	Bank	Year														
		2007	7.69	59.14	15.66	0.83	0.38	0.92	8.34	9.04	86.21	110.13	1.77	0.08		0
		2006	3.23	10.43	3.23	1.23	0.39	0.34	0.23	4.34	34.45	45.32	2.12	0.76		0
6	First Bank Holding	2016	3.48	12.11	2.94	0.13	0.32	4.98	9.68	14.57	87.7	2.29	0.9	0.28		0
		2015	7.24	52.42	2.62	0.09	0.23	1.96	9.62	17.18	86.11	9.27	0.91	0.18		0
		2014	12.2	148.84	15.84	0.83	0.39	11.4	9.64	16.08	87.96	12.04	0.95	6.50		0
		2013	17.9	320.41	14.97	0.85	0.47	6.2	9.59	15.35	87.81	12.65	1.02	4.67		0
		2012	13.08	171.09	17.24	0.82	0.34	5.11	9.5	9.43	86.23	34.89	1.02	5.43		1
		2011	12.04	144.96	5.06	0.68	1.05	7.08	9.46	6.97	87.11	22.37	0.97	0.36		1
		2010	13.7	187.69	9.81	0.13	0.09	0.65	9.36	3.28	85.22	7.4	1.05	1.04		1
		2009	18.84	354.95	1.57	1.54	6.82	8.29	9.34	3.24	85.68	38.83	1.04	0.03		1
		2008	35.05	1228.50	10.27	0.69	0.29	3.63	9.18	5.83	76.72	86.51	0.96	7.13		0
		2007	44.22	1955.41	24.68	2.42	1.07	4.38	8.96	6.79	90.82	53.59	1.46	3.17		0
		2006	23.54	554.13	23.45	2.34	0.40	3.23	7.64	4.45	67.54	55.56	1.34	9.24		0
7	First City Monumental Bank	2016	1.24	1.54	8.02	0.17	0.14	9.09	9.07	9.22	84.75	1.23	0.87	0.52		0
		2015	2.52	6.35	2.93	0.43	1.04	14.79	9.06	15.6	86	4.75	0.89	0.06		0
		2014	3.4	11.56	13.8	0.51	0.27	12.05	9.07	10.8	86.29	16.08	0.91	1.25		0
		2013	4.07	16.56	11.13	0.34	0.00	0	9	19.81	85.75	16.8	0.92	0.66		0
		2012	5.88	34.57	-7.87	1.19	-0.77	10.54	8.78	8.05	80.47	99.44	0.92	0.32		1
		2011	7.37	54.32	5.89	0.15	0.10	0.67	8.73	2.49	74.98	57.46	0.98	0.24		1
		2010	6.21	38.56	0.44	0.12	0.00	0	8.67	1.94	72.05	-8.23	0.89	0.00		1
		2009	12.74	162.31	11.31	0.71	0.22	4.95	8.67	5.76	71.41	106.32	0.86	1.82		1
		2008	11.9	141.61	19.13	0.47	0.21	0.74	8.42	9.65	88.17	163.71	1.51	0.40		0
		2007	14.53	211.12	23.45	0.78	0.98	0.78	5.56	5.45	59.78	76.89	2.34	0.79		0
8	Guaranty Trust Bank	2016	20.4	416.16	26.2	1.68	0.40	7.53	9.49	14.63	83.8	14.51	1.06	21.81		0
		2015	23.57	555.54	24.04	2.04	0.52	10.08	9.4	10.09	83.62	14.27	1.04	12.32		0
		2014	27.46	754.05	26.37	2.14	0.51	7.03	9.37	10.48	84.11	8.21	1.15	12.04		0
		2013	26.4	696.96	27.51	2.18	0.51	6.02	9.32	14.62	84.44	8.86	1.21	10.05		0
		2012	18.25	333.06	30.9	1.87	0.37	4.97	9.24	15.96	83.83	34.65	1.21	9.36		1
		2011	16.26	264.39	20.89	1.51	0.49	5.8	9.21	22.85	85.19	12.66	1.11	2.86		1

#	Company	Year														
		2010	17.75	315.06	18.19	1.72	0.52	4.74	9.06	2.5	81.7	-12.71	1.18	2.66		1
		2009	12.1	146.41	14.88	1.45	0.65	5.34	9.03	3.37	81.97	79.28	1.09	1.61		1
		2008	22.98	528.08	16.43	1.01	0.34	6.71	8.98	29.33	81.09	124.05	0.96	3.42		0
		2007	30.28	916.88	26.4	1.27	0.48	2.24	8.69	26.18	89.73	48.23	1.47	2.62		0
9	Lasasco Assurance	2016	0.5	0.25	12.03	0.22	0.00	0	7.29	36.8	59.31	-2.57	0.78	0.03		0
		2015	0.5	0.25	4.31	0.32	0.00	0	7.21	48.54	59.22	20.25	0.82	0.00		0
		2014	0.5	0.25	7.59	0.44	0.00	0	7.13	23.03	56.19	-9.6	0.84	0.00		0
		2013	0.5	0.25	4.69	0.43	0.00	0	7.13	23.03	56.19	20.39	0.82	0.00		0
		2012	0.5	0.25	-4.56	0.22	0.00	0	7.07	30.34	52.72	11.26	0.89	0.00		1
		2011	0.5	0.25	4.14	0.23	0.00	0	6.99	49.4	43.38	94.29	0.82	0.00		1
		2010	0.53	0.28	3.93	0.21	0.00	0	6.95	1.25	28.68	-30.73	0.75	0.00		1
		2009	0.88	0.77	8.83	3.35	0.57	6.09	6.92	.	26.14	26.98	0.81	0.00		1
		2008	3.42	11.70	7.61	6.94	1.17	3.92	6.88	2.37	35.77	26.97	2.13	0.00		0
		2007	2.66	7.08	11.14	0.87	0.00	0	6.94	1.05	29.45	14.86	4.2	0.01		0
10	Lawunion & Rock	2016	0.65	0.42	11.15	0.69	0.00	0	6.93	25.5	41.27	0.9	0.73	0.03		0
		2015	0.62	0.38	6.3	2.42	0.00	0	6.92	37.28	46.11	-5.73	0.76	0.01		0
		2014	0.5	0.25	3	0.17	0.00	0	6.86	35.49	42.66	10.42	0.66	0.00		0
		2013	0.51	0.26	11.63	0.43	0.00	0	6.84	24.59	39.61	-6.58	0.64	0.02		0
		2012	0.53	0.28	-37.96	0.51	0.00	0	6.82	11.02	46.77	-3.53	0.73	0.15		1
		2011	0.54	0.29	5.24	0.34	0.71	10	6.88	9.64	36.93	10.92	0.6	0.00		1
		2010	0.55	0.30	7.57	1.19	0.27	5.45	6.87	1.52	35.31	4.52	0.61	0.01		1
		2009	1.3	1.69	6.49	0.15	0.00	0	6.81	1.38	30.12	-2.74	0.57	0.01		1
		2008	5.1	26.01	-2.55	0.12	0.00	0	6.76	3.11	37.3	47.76	2.12	0.00		0
		2007	3.02	9.12	7.82	0.71	0.00	0	6.71	0.72	22.65	88.34	3.17	0.01		0
11	Linkage Assurance	2016	0.5	0.25	3.29	0.11	0.00	0	7.31	13.98	18.69	7.58	0.38	0.00		0
		2015	0.5	0.25	3.14	0.23	0.00	0	7.29	12.39	16.33	17.65	0.37	0.00		0
		2014	0.5	0.25	2.08	0.21	0.00	0	7.25	12.46	13.29	46.8	0.36	0.17		0
		2013	0.5	0.25	2.7	3.35	0.00	0	7.25	10.69	13.36	-4.34	0.36	0.27		0
		2012	0.5	0.25	1.19	6.94	0.00	0	7.23	16.61	12.39	-0.57	0.36	0.12		1

		Year														
		2011	0.5	0.25	2.7	0.87	0.00	0	7.02	12.87	22.14	26.52	0.6	0.18		1
		2010	0.5	0.25	-5.01	0.69	0.00	0	6.68	4.91	37.24	-17.23	1.21	0.09		1
		2009	0.55	0.30	-8.43	0.98	0.00	0	6.7	5.35	38.39	136.29	0.89	0.26		1
		2008	3.04	9.24	-4.82	0.45	0.00	0	6.72	7.8	38.33	82.35	1.04	0.10		0
		2007	2.73	7.45	6.06	0.87	0.00	0	6.86	3.16	38.02	237.84	3.09	0.29		0
12	Mutual Benefit Assurance	2016	0.5	0.25	-19.54	0.21	0.00	0	7.71	20.86	86.37	-13.18	0.94	0.03		0
		2015	0.5	0.25	11.86	0.12	0.00	0	7.66	30.41	83.41	-11.16	0.92	0.01		0
		2014	0.52	0.27	65.79	0.11	0.00	0	7.63	31.02	85.3	102.26	0.95	0.26		0
		2013	0.5	0.25	25.95	0.21	0.00	0	7.51	11.48	92.61	-3.76	1.05	0.00		0
		2012	0.5	0.25	-158	3.35	0.00	0	7.42	5.84	92.89	31.83	1.08	0.10		1
		2011	0.5	0.25	12.33	6.94	0.00	0	7.35	7.96	72.37	79.75	0.9	0.00		1
		2010	0.57	0.32	15.62	0.87	0.00	0	7.22	6.63	68.83	39.73	0.93	0.01		1
		2009	0	0.00	6.14	0.69	0.00	.	7.08	4.38	62.38	-33.62		0.00		1
		2008	0	0.00	-21.55	2.07	-0.16	.	7	14.13	28.71	64.28		0.04		0
		2007	0	0.00	11.53	1.76	0.15	.	7.03	21.22	16.56	13.49		0.02		0
13	Prestige Assurance	2016	0.5	0.25	-1.9	0.23	0.00	0	6.99	8.9	35.72	4.64	0.6	0.00		0
		2015	0.5	0.25	-2.42	0.32	0.00	0	7.02	12.66	42.21	-14.77	0.65	0.00		0
		2014	0.58	0.34	0.31	0.55	0.00	0	7.08	27.41	61.53	-32.35	0.72	0.32		0
		2013	0.62	0.38	-2.06	0.44	0.00	0	7.01	24.17	56.45	-7.92	0.71	0.00		0
		2012	0.69	0.48	15.6	0.52	0.08	3.92	6.99	17.23	60.13	19.2	0.73	0.06		1
		2011	1.59	2.53	-1.25	2.1	-5.00	5.46	6.79	27.99	55.04	-0.72	0.93	0.00		1
		2010	2.95	8.70	10.26	2.85	0.43	4.78	6.88	4.55	37.04	30.96	0.97	0.05		1
		2009	4.8	23.04	13.65	6.2	0.71	5	6.84	4.66	37.39	-0.2	1.61	0.08		1
		2008	9.23	85.19	16.29	7.62	0.64	3.37	6.77	4	26.5	31.13	2.53	0.11		0
		2007	6.1	37.21	13.63	2.82	0.28	1.23	6.8	2.87	25.5	154.13	2.54	0.15		0
14	Stanbic Ibtc Holding	2016	15.13	228.92	20.26	2.12	0.00	0	9.02	28.6	86.64	5.78	1.01	6.05		0
		2015	23.2	538.24	14.65	1.38	0.83	7.81	8.97	22.56	86.24	14.59	1.04	2.40		0
		2014	27.05	731.70	26.67	1.47	0.24	2.57	8.98	12.33	87.9	15.29	1.45	8.58		0
		2013	16.51	272.58	22.03	1.37	0.25	2.28	8.82	12.4	85.33	8.24	1.45	3.46		0

No	Name	Year														
		2012	8.99	80.82	12.19	1.51	2.04	9.3	8.83	11.37	87.35	63.2	1.04	0.25		1
		2011	9.27	85.93	8.32	1.4	1.35	9.33	8.74	5.43	84.71	3.11	1	0.32		1
		2010	9.23	85.19	11.29	1.54	0.62	3.4	8.58	2.61	77.86	-16.03	1.23	0.25		1
		2009	7.12	50.69	10.11	2.94	0.93	5.41	8.41	2.99	69.02	-0.13	1.23	0.18		1
		2008	15.56	242.11	14.87	1.77	0.39	2.33	8.43	4.29	70.11	224.98	1.46	0.41		0
		2007	14.42	207.94	13.99	2.36	0.72	1.71	8.2	5.34	68.92	77.59	2.07	0.22		0
15	Standard Alliance Insurance	2016	0.5	0.25	-28.84	0.32	0.00	0	7.11	3.73	64.27	-20.01	1.1	0.01		0
		2015	0.5	0.25	19.08	0.23	0.00	0	7.07	11.18	60.53	25.07	1.11	0.55		0
		2014	0.5	0.25	-60.88	1.23	0.00	0	6.89	9.08	55.74	14.79	1.33	0.03		0
		2013	0.5	0.25	-18.44	1.99	-0.14	2.92	6.94	2.62	45.64	-29.76	1.14	0.00		0
		2012	0.5	0.25	-41.54	1.32	0.00	0	6.95	3.54	45.45	18.22	1.13	0.03		1
		2011	0.5	0.25	0.11	0.98	#DIV/0!	0	6.98	7.01	36.13	17.22	0.96	0.00		1
		2010	0.59	0.35	-109.18	1.06	-0.01	2.68	7.03	0.72	28.26	19.18	0.68	0.98		1
		2009	0.94	0.88	-35.33	2.63	-0.09	10.4	7.27	0.44	12.59	119.98	0.38	0.45		1
		2008	3.09	9.55	3.7	1.95	0.42	3.54	7.36	0.48	10.04	18.46	0.65	0.01		0
		2007	3.23	10.43	5.26	0.23	0.00	0	6.87	0.47	14.21	27.16	5.03	0.02		0
16	Sterling Bank	2016	1.23	1.51	6.03	0.32	0.50	12.3	8.92	12.93	89.73	22.49	0.92	0.03		0
		2015	2.11	4.45	10.77	0.22	0.17	3.28	8.9	14.5	88.05	3.82	0.95	0.13		0
		2014	2.43	5.90	10.63	0.65	0.60	9.83	8.92	17.48	89.73	11.37	0.96	0.18		0
		2013	2.59	6.71	13.04	0.49	0.29	6.38	8.81	14.03	90.15	30.69	0.98	0.27		0
		2012	1.33	1.77	14.91	0.29	0.27	7.23	8.73	18.27	91.26	65.89	0.95	0.19		1
		2011	1.88	3.53	16.87	0.23	0.00	0	8.67	19.55	91.13	28.14	0.94	0.28		1
		2010	2.11	4.45	19.17	1.23	0.00	0	8.37	2.86	88.72	-25.94	1.01	0.16		1
		2009	1.88	3.53	-40.74	1.99	-0.14	8.15	8.26	4.67	87.93	55.1	0.96	0.52		1
		2008	5.03	25.30	20.94	0.02	0.00	0.12	8.34	46.22	85.6	64.56	1	0.27		0
		2007	5.91	34.93	6.94	0.57	0.00	0	8.11	38.16	100	77.13	1.6	0.03		0
17	United Bank For Africa	2016	3.82	14.59	16.13	0.59	0.30	13.51	9.54	21.71	87.21	12.82	0.92	4.16		0
		2015	4.36	19.01	17.93	0.35	0.17	8.82	9.44	23.81	87.92	18.96	0.92	3.20		0
		2014	6.23	38.81	18.05	0.57	0.33	11.87	9.44	29.41	90.39	5.91	0.95	2.43		0

#	Bank	Year														
		2013	7.69	59.14	19.83	0.6	0.34	6.67	9.42	27.13	91.1	23.8	1	2.31		0
		2012	3.29	10.82	26.75	0.02	0.01	0.32	9.32	34.32	90.75	32.06	0.98	2.76		1
		2011	6.5	42.25	-5.74	0.07	-0.14	1.56	9.25	24.54	91.47	-3.53	0.96	0.08		1
		2010	12	144.00	0.33	0.15	3.67	1.18	9.16	4.73	87.52	-33.79	1	0.00		1
		2009	11.63	135.26	1.27	0.95	5.40	5.04	9.13	5.01	86.28	52.73	1.05	0.01		1
		2008	35.08	1230.61	21.1	1.13	0.41	9.75	9.17	8.12	86.91	57.95	0.98	9.86		0
		2007	44.94	2019.60	12.78	0.69	0.33	2.26	9.01	12.7	100	27.79	1.31	6.81		0
18	Unity Bank	2016	0.79	0.62	2.63	1.99	0.00	0	8.69	10.38	83.13	10.63	0.84	0.04		0
		2015	2.99	8.94	5.68	0.02	0.00	0	8.65	6.22	81.37	0.12	0.91	0.01		0
		2014	0.5	0.25	14.02	0.57	0.00	0	8.62	1.65	81.55	20	0.96	0.03		0
		2013	0.68	0.46	-80.04	0.154	0.00	0	8.61	2.41	93.01	26.57	0.98	0.35		0
		2012	0.57	0.32	12.01	1.44	0.00	0	8.54	11.98	85.05	30.06	0.91	0.03		1
		2011	1.1	1.21	6.15	0.64	0.63	8.66	8.42	10.62	83.2	8.71	0.91	0.01		1
		2010	0.98	0.96	28.44	0.98	0.00	0	8.42	6.66	83.19	-7.76	0.98	0.14		1
		2009	1.83	3.35	-233.11	0.45	0.00	0	8.4	3.1	97.24	30.83	1.03	1.02		1
		2008	5.94	35.28	-66.88	0.06	0.01	0.43	8.54	3.55	94.43	124.77	1.08	0.64		0
		2007	6.4	40.96	2.25	0.65	0.00	0	8.31	20.72	84.24	143.97	1.47	0.00		0
		2006	7.56	57.15	4.34	0.78	0.00	0.53	4.34	12.45	76.67	213.53	2.12	0.76		0
19	Zenith Bank	2016	13.83	191.27	18.4	1.19	0.44	12.2	9.68	14.12	85.14	10.45	0.95	16.97		0
		2015	17.75	315.06	17.78	1.57	0.60	14.24	9.6	19.01	85.17	11.09	0.96	11.29		0
		2014	21.91	480.05	18	1.46	0.55	9.51	9.57	20.04	85.28	20.52	1.01	9.99		0
		2013	20.96	439.32	18.87	1.91	0.55	7.42	9.42	22.27	80.82	17.5	1.07	8.47		0
		2012	15.95	254.40	21.9	1.39	0.30	4.87	9.33	15.53	78.53	35.62	1.07	10.18		1
		2011	13.45	180.90	12.44	1.38	0.55	6.98	9.29	11.55	79.74	28.23	1	2.37		1
		2010	15.66	245.24	10.36	0.74	0.30	2.4	9.19	9.25	76.41	-34.25	1.07	1.42		1
		2009	19.12	365.57	6.1	1.72	1.38	8.33	9.22	7.64	79.65	39.5	1	0.67		1
		2008	36	1296.00	15	0.52	0.18	3.1	9.25	13.41	80.6	118.05	0.97	14.67		0
		2007	48.09	2312.65	16.13	0.68	0.35	1.55	8.99	59.1	88.03	68.83	1.32	4.08		0
		2006	56.78	3223.97	13.45	0.86	0.31	4.53	9.56	33.23	86.67	45.42	3.23	4.45		0

Source: Financial Statement and Annual Accounts of selected firms.

Appendix 1b: List of 41 Non-Financial Firms and Data (variables) Collected

SN	Company	Year	MPS	Stock Market Volatility (SMV)	Return on Equity (PROF)	Turnover Ratio (SLIQ)	DPO	DY	SIZE	Cash to Asset Ratio (FLIQ)	Debt to Total Asset (LEV)	Revenue Growth (GR)	Tobin's Q (IO)	E.Vol.	Fin. Crises
1	7Up Nigeria	2016	162.5	26406.25	13.51	2.42	49.14	1.99	7.83	8.64	63.45	3.86	1.85	27.35	0
		2015	176	30976.00	29.77	2.24	21.22	1.3	7.83	12.59	64.64	5.86	2.37	123.65	0
		2014	118.4	14018.56	37.13	2.39	20.72	1.26	7.75	8.81	68.98	21.53	2.59	100.80	0
		2013	60.48	3657.83	22.71	2.49	44.84	2.8	7.71	6.04	75.52	7.06	1.65	19.89	0
		2012	42.16	1777.47	20.25	2.89	61.92	4.76	7.65	5.32	76.96	17.16	1.38	10.43	1
		2011	44.48	1978.47	26.55	2.23	39.35	3.38	7.6	13.79	78.68	24.42	1.45	15.92	1
		2010	40.3	1624.09	21.09	2.3	40.65	3.85	7.52	4.79	73.16	17.8	1.33	13.62	1
		2009	34.24	1172.38	19.16	2.41	50.34	5.1	7.5	13.2	74.96	14.04	1.22	8.88	1
		2008	47.36	2242.97	22.27	2.78	41.40	3.37	7.38	10.24	69.88	11.95	1.52	9.86	0
		2007	48.85	2386.32	19.42	2.37	42.02	2.13	7.34	15.06	70.99	23.73	1.82	5.66	0
		2006	35.56	1264.51	25.45	4.34	35.96	4.54	8.67	12.23	67.64	35.45	2.32	11.70	0
2	A.G.Leventis Nig	2016	0.86	0.74	-40.45	0.27	-2.13	2.14	7.31	9.72	68.82	1.93	0.81	0.88	0
		2015	1.16	1.35	-1.95	1.65	0.00	0	7.35	8.96	59.6	6.29	0.67	0.00	0
		2014	1.54	2.37	1.52	1.56	93.33	10.69	7.38	9.21	56.8	-1.05	0.71	0.02	0
		2013	1.65	2.72	7.02	1.81	54.84	9.87	7.31	10.02	52.42	-26.89	0.71	0.10	0
		2012	1.15	1.32	2.78	0.34	10.71	2.56	7.36	8.11	55.11	-9.9	0.68	0.08	1
		2011	1.95	3.80	3.2	1.51	66.67	10.3	7.32	4.71	50.95	35.51	0.66	0.04	1
		2010	3.36	11.29	6.92	1.35	41.38	4.66	7.29	6.28	52.13	-1.74	0.81	0.08	1
		2009	4.67	21.81	11.98	2.41	32.50	5.19	7.22	6.89	37.27	21.1	0.84	0.16	1
		2008	11.89	141.37	13	2.32	25.00	1.2	7.14	16.04	32.04	55.04	2.26	0.13	0
		2007	3.47	12.04	10.05	2.04	30.00	1.72	7.03	26.74	30.73	1.22	1.49	0.09	0

		2006	7.56	57.15	3.23	3.45	21.84	5.45	8.65	21.24	32.12	3.24	3.34	0.76	0
3	Academy	2016	0.6	0.36	-26.11	2.32	0.00	0	6.55	0.76	83.48	-11.36	0.92	0.06	0
		2015	0.87	0.76	-3.57	1.08	-140.00	12.12	6.57	0.46	80.87	-1.58	0.9	0.00	0
		2014	1.69	2.86	11.27	1.06	40.00	6.78	6.58	0.36	78.88	2.69	0.95	0.04	0
		2013	2.22	4.93	7.31	1.07	61.54	2.94	6.55	24.66	78.78	-0.38	1.15	0.02	0
		2012	2.84	8.07	13.42	1.13	33.33	3.89	6.45	18.31	75.62	-0.91	1.05	0.03	1
		2011	2.94	8.64	13.94	0.96	26.09	2.56	6.37	9.29	73.16	14.81	1.11	0.05	1
		2010	5.45	29.70	28.18	0.89	14.29	1.63	6.31	0.91	76.36	13.51	1.31	0.18	1
		2009	5.1	26.01	20.24	0.82	16.00	0.74	6.17	1.91	68.77	45.85	1.79	0.06	1
		2008	8.54	72.93	13.69	0.92	22.22	1.09	6.12	4.07	69.63	9.68	1.54	0.07	0
		2007	4.15	17.22	20.53	1.14	19.35	1.01	5.99	0.86	68.97	19.3	1.82	0.10	0
4	Air& Logistic Services	2016	2.07	4.28	35.45	0.98	0.00	0	6.81	30.52	49.98	11.46	0.74	3.20	0
		2015	2.01	4.04	-2.75	2.07	-150.00	6.79	6.66	16.06	54.74	28.02	0.85	0.01	0
		2014	2.41	5.81	7.37	1.77	42.86	7.06	6.63	11.33	45.62	1.53	0.71	0.08	0
		2013	4.14	17.14	4.18	4.57	108.70	7.81	6.54	27.54	37.66	-8.63	0.96	0.05	0
		2012	2.79	7.78	22.52	4.24	25.64	4.81	6.48	20.89	26.88	5.12	1.15	0.61	1
		2011	2.1	4.41	13.45	3.68	38.46	6.98	6.41	11.59	29.66	-0.68	0.82	0.15	1
		2010	2.94	8.64	15.31	2.84	26.32	5.82	6.35	7.24	29.55	-6.89	0.78	0.14	1
		2009	7.52	56.55	12.65	1.73	24.14	2.68	6.41	8.39	44.12	9.47	1.09	0.08	1
		2008	19.11	365.19	8.37	1.11	35.29	0.41	6.52	1.98	59.63	3.74	3.32	0.03	0
5	Associated Bus Company	2016	0.5	0.25	-42.18	4.24	0.00	0	6.64	1.98	67.13	-1.28	0.86	0.13	0
		2015	0.57	0.32	6.84	3.68	0.00	0	6.78	2.25	67.9	-7.49	0.82	0.01	0
		2014	0.75	0.56	-20.05	1.4	-24.00	10.91	6.81	1.31	71.07	10.38	0.84	0.06	0
		2013	0.78	0.61	13.38	3.48	65.00	15.66	6.75	2.7	59.53	1.96	0.82	0.04	0
		2012	0.51	0.26	14.75	1.34	0.00	0	6.7	4.73	55.82	11.62	0.71	0.05	1
		2011	0.62	0.38	3.74	0.59	40.00	4.24	6.71	1.82	62.61	26.81	0.77	0.00	1
		2010	0.8	0.64	3.26	1.2	75.00	5.72	6.57	1.15	53.01	13.48	0.74	0.00	1
		2009	1.32	1.74	4.89	3.71	183.33	14.46	6.61	8.35	56.85	2.73	0.83	0.00	1
		2008	3.91	15.29	9.15	2.8	72.73	4.05	6.63	7.62	57.53	23.59	1.27	0.01	0

#	Company	Year													
		2007	3.19	10.18	7.93	4.05	88.89	2.89	6.47	2.7	40.22	18.19	1.81	0.01	0
		2006	1.24	1.54	3.74	0.59	40.00	4.24	6.71	1.82	62.61	26.81	0.77	0.00	0
6	Avon Crowncaps & Containers	2016	1.33	1.77	-9.17	1.67	0.00	0.05	7.09	5.34	85.17	9.42	0.91	0.06	0
		2015	1.52	2.31	-2.1	0.02	0.00	0.24	7.07	0.99	82.75	-2.88	0.91	0.00	0
		2014	1.61	2.59	6.21	0.37	26.32	3.14	6.96	1.05	77.36	15.73	0.89	0.04	0
		2013	1.81	3.28	-5.28	0.01	0.00	0.08	7	1.48	79.91	2.18	0.92	0.02	0
		2012	3.78	14.29	4.04	0.01	0.00	0.13	7.05	1.67	81.26	-2.55	0.93	0.01	1
		2011	6.43	41.34	5.23	0.04	0.00	0.07	6.86	1.25	72	5.67	1.29	0.02	1
		2010	7.28	53.00	4.44	0.96	100.00	1.75	6.94	0.74	78.4	16.25	1.34	0.01	1
		2009	8.35	69.72	12.66	1.08	31.43	1.47	6.85	1.58	73.44	38.68	1.47	0.12	1
		2008	10.29	105.88	14.65	1.04	21.95	0.98	6.74	1.08	68.86	11.77	1.75	0.17	0
		2007	3.75	14.06	11.36	1.27	30.00	1.69	6.62	1.75	63.21	0.37	1.38	0.09	0
7	B.O.C Gases Nig	2016	3.75	14.06	3.51	0.28	11.11	0.68	6.56	18.01	40.16	-0.19	0.81	0.03	0
		2015	4.64	21.53	5.74	0.47	13.79	0.95	6.51	7.91	34.32	-10.18	0.83	0.08	0
		2014	6.07	36.84	11.19	2.68	40.74	4.01	6.53	12.13	41.01	5.8	1.08	0.29	0
		2013	7.43	55.20	14.41	1.15	12.70	1.2	6.46	25.01	36.85	-10.07	1.33	0.40	0
		2012	6.1	37.21	18.53	0.86	0.00	0	6.42	16.92	37.93	-1.52	1.36	0.53	1
		2011	8	64.00	24.92	6.32	42.50	4.97	6.35	13.03	40.43	2.03	1.68	0.64	1
		2010	11.34	128.60	30.39	5.57	34.09	3.25	6.33	17.34	47.4	4.08	2.18	0.77	1
		2009	15.23	231.95	27.4	14.38	117.46	5.49	6.31	7.14	55.35	18.83	3.17	0.40	1
		2008	21.59	466.13	29.01	4.51	39.29	1.26	6.28	9.8	60.21	-0.06	4.18	0.31	0
		2007	6.5	42.25	31.38	1.61	12.07	0.76	6.25	5.76	58.7	41.96	2.71	0.34	0
8	Berger Paints Nig	2016	7.85	61.62	8.6	3.96	72.73	8.76	6.61	11.87	36.52	-13.88	0.82	0.59	0
		2015	9.62	92.54	12.77	4.43	52.63	5.96	6.59	15.42	33.59	-1.97	1.08	1.30	0
		2014	9	81.00	6.05	4.63	113.73	6.47	6.56	25.99	32.42	13.83	1.04	0.26	0
		2013	9.44	89.11	10.32	4.3	60.92	6.58	6.55	32.19	31.13	7.75	0.96	0.76	0
		2012	8.37	70.06	10.82	5.23	79.55	7.8	6.46	25.76	38.96	-2.36	1.06	0.77	1
		2011	10.18	103.63	13.17	5.69	66.67	8.26	6.43	26.67	35.35	-6.61	1.04	1.10	1
		2010	6.18	38.19	26.36	4.17	24.63	5.96	6.42	7.56	35.58	15.83	1.06	4.12	1

No	Company	Year													
		2009	4.81	23.14	14.39	2.86	33.71	9.38	6.36	27.57	41.13	-6.11	0.72	0.79	1
		2008	15.16	229.83	12.21	0.87	0.00	0	6.31	18.04	40.49	11.4	1.03	0.90	0
		2007	7.32	53.58	10.43	0.08	1.92	0.07	6.32	2.94	48.6	-1.1	1.53	0.27	0
		2006	12.45	155.00	30.39	5.57	34.09	3.25	6.33	17.34	47.4	4.08	2.18	0.77	0
9	Beta Glass Company	2016	41.75	1743.06	17.69	0.6	5.26	1.32	7.52	24.27	35.29	19.67	0.81	57.76	0
		2015	38.01	1444.76	11.33	1.14	15.58	1.16	7.43	14.73	35.31	-4.09	1.34	15.84	0
		2014	22	484.00	14.98	0.71	7.95	1.37	7.43	11.22	40.76	18	0.92	22.85	0
		2013	11.96	143.04	10.67	0.63	11.60	2.35	7.43	7.57	49.37	9	0.76	8.58	0
		2012	11.12	123.65	10.67	0.89	15.04	3.81	7.35	4.78	44.53	1.62	0.68	7.08	1
		2011	13.76	189.34	15.67	1.13	11.55	3.21	7.26	6.52	37.15	13.95	0.72	12.60	1
		2010	14.64	214.33	15	1.11	12.20	2.31	7.21	7.42	39.3	5.75	0.87	8.70	1
		2009	18.02	324.72	16.24	1.12	10.83	2.08	7.12	5.7	35.63	16.37	0.89	7.67	1
		2008	23.77	565.01	16.36	0.41	4.60	0.53	7.14	4.72	47.57	29.06	1.26	5.71	0
		2007	14.3	204.49	14.05	0.56	7.85	0.7	7.08	3.42	49.14	36.92	1.29	3.65	0
10	Capital Hotel	2016	3.6	12.96	24.32	0.53	0.00	0	6.96	44.13	42.04	14.48	1.02	0.67	0
		2015	4.08	16.65	12.41	0.06	0.00	0.08	6.88	34.54	47.56	3.08	1.27	0.10	0
		2014	4.42	19.54	7.05	0.03	0.00	0.03	6.85	32.79	50.62	-2.3	1.45	0.03	0
		2013	5.41	29.27	5.18	0.21	0.00	0	6.81	35.62	49.51	7.9	1.6	0.01	0
		2012	6.61	43.69	13.17	1.68	30.43	1.12	6.81	30.1	57.81	-10.47	2.09	0.05	1
		2011	5.37	28.84	15.32	1.7	28.57	1.12	6.83	30.95	59.04	-4.13	2.11	0.08	1
		2010	2.8	7.84	169.8	2.06	17.95	2.26	6.75	24.23	47.26	6.97	1.38	0.15	1
		2009	3.91	15.29	26.82	1.58	11.63	3.61	6.69	33.56	49.28	18.7	0.93	0.18	1
		2008	34.45	1186.80	34.23	5.56	68.37	6.56	6.54	34.34	24.45	4.23	1.23	0.96	0
11	Cement Company of Northern Nigeria	2016	7.04	49.56	10.91	0.63	10.00	2	7.3	12.3	42.62	8.05	0.74	1.00	0
		2015	9.5	90.25	11.84	2.57	36.46	3.75	7.23	5.94	40.84	-13.77	1.09	0.92	0
		2014	12.07	145.68	20.31	5.57	45.75	6.75	7.2	5.68	40.14	-4.23	1.23	2.34	0
		2013	10.18	103.63	15.7	0	0.00	0	7.18	7.52	39.82	4.37	1.38	1.28	0
		2012	5.06	25.60	15.66	0	0.00	0	7.15	5.41	46.36	8.7	0.93	0.90	1
		2011	9.26	85.75	32.9	0	0.00	0	7.1	4.85	44.28	24.45	0.88	3.35	1

		Year													
		2010	17.49	305.90	26.18	1.17	9.90	0.65	7.03	7.16	54.78	-5.79	2.36	1.02	1
		2009	9.45	89.30	42.97	10.25	43.48	6.42	6.99	6.39	56.98	20.15	2.17	3.39	1
		2008	14.92	222.61	38.49	6.43	33.58	8.44	6.94	4.54	54.79	22.82	1.31	1.80	0
		2007	25.28	639.08	4.4	0	0.00	0	6.96	3.12	65.44	26.18	3.83	0.01	0
12	Chams	2016	0.5	0.25	-82.72	0	0.00	0	6.78	3.04	69.57	-7.98	1.03	0.06	0
		2015	0.5	0.25	-101.52	1.1	-2.90	4.69	6.93	1.84	60.82	-60.87	0.84	0.48	0
		2014	0.5	0.25	4.74	0	0.00	0	7.08	2.06	51.06	19.67	0.68	0.00	0
		2013	0.5	0.25	4.03	0	0.00	0	7.03	1.28	56.36	21.28	0.69	0.00	0
		2012	0.5	0.25	1.95	0	0.00	0	6.94	1.83	48.5	59.51	0.65	0.00	1
		2011	0.5	0.25	-30.84	0	0.00	0	6.89	0.75	47.93	19.72	0.79	0.07	1
		2010	0.65	0.42	-26.83	0	0.00	0	6.93	0.3	39.34	50.2	0.67	0.08	1
		2009	1.19	1.42	-39.95	1.46	-4.92	10.5	6.98	0.86	25.23	-58.81	0.39	1.49	1
		2008	6.61	43.69	13.17	1.68	30.43	1.12	6.81	30.1	57.81	-10.47	2.09	0.05	0
13	Chemical & Allied Product	2016	34.3	1176.49	70.22	17.09	52.40	3.75	6.69	47.31	53.55	-3.44	5.09	5.24	0
		2015	37.5	1406.25	114.43	41.06	80.32	5.32	6.53	54.69	55.41	0.99	8.27	6.20	0
		2014	41.93	1758.12	140.82	56.8	105.06	6.65	6.49	35.42	61.68	12.78	9.15	5.62	0
		2013	42.26	1785.91	111.72	41.75	89.60	3.73	6.48	48.03	58.22	18.44	11.78	4.08	0
		2012	23.57	555.54	99.73	60.85	156.78	11.15	6.46	44.07	61.1	21.3	6.07	3.96	1
		2011	26.25	689.06	71.92	17.98	52.41	6.78	6.49	59.23	52.48	18.32	3.18	3.50	1
		2010	31.11	967.83	86.44	25.95	69.84	6.45	6.37	59.15	56.91	20.39	4.59	9.92	1
		2009	32.99	1088.34	45.2	26.37	167.28	9.7	6.33	58.82	65.1	12.98	3.37	2.62	1
		2008	58.69	3444.52	107.16	28.36	85.71	7.08	6.35	66.91	69.1	27.62	4.7	12.25	0
		2007	45.1	2034.01	35.12	29.91	168.86	4.4	6.3	67.28	49.41	5.72	7.29	2.79	0
		2006	46.67	2178.09	65.45	34.34	156.60	8.56	4.54	34.56	54.67	8.65	9.67	4.49	0
14	First Aluminium Nigeria	2016	0.5	0.25	3.31	0	0.00	0	6.97	2.61	46.99	-12.63	0.58	0.01	0
		2015	0.5	0.25	2.33	0	0.00	0	6.92	2.81	42.35	17.71	0.55	0.00	0
		2014	0.5	0.25	0.64	0	0.00	0	6.93	3.95	45.26	6.09	0.58	0.00	0
		2013	0.5	0.25	2.11	0	0.00	0	6.93	0.47	46.21	-2.88	0.59	0.00	0
		2012	0.5	0.25	-22.25	0	0.00	0	6.95	0.65	49.09	-2.57	0.61	0.00	1

		Year													
		2011	0.61	0.37	-4.63	0	0.00	0	7	0.28	40.35	1.22	0.51	0.02	1
		2010	0.8	0.64	-5.34	0	0.00	0	7.02	0.49	40.38	5.68	0.55	0.03	1
		2009	1.93	3.72	0.73	0	0.00	0	7.03	0.44	38.15	2.6	0.48	0.00	1
		2008	5.62	31.58	-13.05	0	0.00	0	6.94	18.25	73.62	-7.38	1.41	0.05	0
		2007	2	4.00	-50.08	0	0.00	0	6.88	0.72	86.95	0.32	1.26	0.14	0
15	Flour Mills Of Nigeria	2016	20.02	400.80	15.06	1.07	25.31	7.6	8.54	13.56	72.27	10.96	0.86	31.02	0
		2015	28.53	813.96	10.03	1.45	55.39	9.13	8.54	9.08	75.4	-7.04	0.91	11.76	0
		2014	63.6	4044.96	6.42	1.64	96.37	4.73	8.47	5.66	71.89	10	1.06	3.72	0
		2013	82.95	6880.70	9.21	1.45	53.26	1.78	8.45	7.79	70.06	16.91	1.52	8.47	0
		2012	59.26	3511.75	10.17	1.65	48.38	2.3	8.37	11.27	64.64	8.15	1.36	9.49	1
		2011	77.28	5972.20	18.9	2.1	36.28	2.51	8.21	5.44	69.38	15.58	1.53	20.43	1
		2010	56.93	3241.02	7.31	0.58	4.14	0.58	8.16	4.45	62.89	14.74	1.63	93.51	1
		2009	24.06	578.88	11.57	1.13	35.87	2.22	8.14	14.42	72.81	41.05	1.24	4.97	1
		2008	68.05	4630.80	11.1	1.41	19.36	2.47	8.04	17.74	67.88	20.81	1.25	16.65	0
		2007	76.99	5927.46	22.19	1.2	17.88	1.05	7.88	6.37	69.84	22.06	1.85	23.14	0
16	Forte Oil (AP)	2016	197.86	39148.58	6.67	3.21	112.06	2.64	8.15	12.11	69.21	19.25	1.91	3.96	0
		2015	253	64009.00	44.29	2.24	32.85	0.41	8.09	9.61	89.26	-26.75	6.38	16.89	0
		2014	159.6	25472.16	10.05	3.1	96.82	0.94	8.14	11.54	68.16	32.88	4	4.84	0
		2013	63.44	4024.63	11.82	0	0.00	0	8.02	6.49	59.54	40.71	1.79	18.66	0
		2012	9.96	99.20	13.29	0	0.00	0	7.63	9.1	82.16	-22.24	1.02	0.86	1
		2011	17.76	315.42	-331.72	0	0.00	0	7.66	8.08	86.98	-11.83	1.15	0.04	1
		2010	34.37	1181.30	-10.83	0	0.00	0	7.84	5.56	63.23	-17	0.98	0.00	1
		2009	141.54	20033.57	-27.68	5.68	-5775.00	13.77	7.94	2.9	62.34	4.44	1.04	0.01	1
		2008	280.49	78674.64	73.29	7.71	9600.00	1.96	7.86	6.98	90.28	49.33	4.84	0.00	0
		2007	93	8649.00	77.74	2.37	13.83	0.78	7.52	13.84	77.84	25.1	3.82	52.27	0
		2006	102	10404.00	34.54	4.56	49.23	5.45	5.45	14.35	75.64	32.34	5.45	20.52	0
17	Glaxosmithkline Nigeria	2016	20.5	420.25	13.95	0.68	10.05	1.28	7.45	53.98	39.54	-53.04	0.93	3.96	0
		2015	38	1444.00	7.32	2.29	78.13	2.19	7.5	11.61	57.91	0.37	1.62	0.92	0
		2014	60	3600.00	14.28	4.44	67.36	2.6	7.45	6.06	53.74	4.58	2.25	3.72	0

No	Name	Year													
		2013	58.01	3365.16	23.65	4.74	42.62	1.91	7.42	14.95	52.9	15.31	3.01	9.30	0
		2012	32.75	1072.56	26.48	5.27	40.68	2.66	7.34	20.03	51.07	17.57	2.49	8.70	1
		2011	25.75	663.06	25.63	6.4	50.00	5.2	7.25	22.21	49.93	27.65	1.73	5.76	1
		2010	25.39	644.65	25.2	4.87	36.23	2.89	7.17	7.65	46.76	12.78	2.15	4.28	1
		2009	17.65	311.52	35.34	4.76	33.71	2.69	7.08	17.79	45.5	19.19	2.23	3.17	1
		2008	22.04	485.76	23.43	4.48	33.58	3.08	6.98	12.41	43.27	26.52	1.89	1.80	0
		2007	21.89	479.17	18.19	2.65	27.59	1.02	6.94	5.88	47.22	-4.56	3.06	0.76	0
18	Greif Nig.	2016	0	0.00	8.03	3.54	93.75	.	5.86	10.07	53.27	24.06	.	0.41	0
		2015	10.43	108.78	7.33	3.57	103.45	5.23	5.85	35.3	53.05	2.26	1.21	0.34	0
		2014	12.38	153.26	12.89	3.85	58.82	4.97	5.82	25.65	49.23	-0.96	1.27	1.04	0
		2013	12.83	164.61	9.6	1.78	40.28	2.26	5.83	23.21	53.23	6.22	1.32	0.52	0
		2012	13.13	172.40	9.32	1.79	35.29	2.3	5.85	17.97	45.28	-14.88	1.23	0.72	1
		2011	14.16	200.51	10.46	1.09	17.78	1.19	5.79	15.44	41.05	12.08	1.32	0.81	1
		2010	15.03	225.90	12.78	0	0.00	0	5.83	11.1	49.43	-4.68	1.45	1.04	1
		2009	15.13	228.92	-5.8	0	0.00	0	5.86	9.66	59.22	27.89	1.48	0.16	1
		2008	9.65	93.12	0.82	0	0.00	0	5.84	5.9	54.75	20.86	1.48	0.00	0
		2007	1.64	2.69	-4.91	0.62	29.73	5.13	5.87	4.61	57	-10.04	0.69	0.14	0
19	Guinness Nig	2016	97.75	9555.06	-4.84	1.64	-111.19	1.79	8.14	4.27	69.59	-13.94	1.61	1.80	0
		2015	145.2	21083.04	16.12	3.89	61.00	2.62	8.09	4.75	60.46	8.51	2.09	26.83	0
		2014	190	36100.00	21.25	8.2	113.21	4.28	8.12	4.75	65.95	-10.83	2.57	40.45	0
		2013	264.5	69960.25	25.77	3.53	35.81	1.2	8.08	2.63	61.97	5.15	3.56	62.88	0
		2012	247.5	61256.25	36.81	13.27	98.96	3.47	8.03	4.5	63.58	-5.82	4.46	92.93	1
		2011	223	49729.00	44.5	14.31	73.60	3.58	7.96	8.76	56.32	13.07	4.56	147.87	1
		2010	159.63	25481.74	40.17	14.11	80.56	3.94	7.89	16.69	56.38	22.68	4.15	86.68	1
		2009	107.1	11470.41	42.95	25.56	139.43	10.04	7.87	13.28	57.32	28.88	3.12	84.27	1
		2008	111.2	12365.44	32.18	9.07	55.97	4.52	7.86	20.79	49.64	11.09	2.5	64.64	0
		2007	122.63	15038.12	33.79	6.31	42.35	2.56	7.86	30.68	55.94	16.05	3.03	61.47	0
		2006	231.34	53518.20	54.34	8.56	41.96	4.54	6.78	34.24	45.45	18.66	4.54	63.36	0
20	Julius Berger	2016	42.97	1846.42	-15.08	0.76	52.08	3.89	8.41	4.08	90.23	3.88	1.1	8.29	0

No	Company	Year													
		2015	45.07	2031.30	10.05	1.22	170.68	5.41	8.39	5.45	90.09	-32.01	1.13	1.77	0
		2014	68.56	4700.47	31.58	1.21	37.68	3.81	8.41	9.17	89.81	-7.49	1.22	37.58	0
		2013	66.5	4422.25	37.34	1.27	36.76	3.42	8.36	9.01	90.74	5.54	1.28	45.16	0
		2012	27.26	743.11	52.91	1.55	34.70	6.83	8.25	5.99	91.54	18.98	1.14	46.65	1
		2011	46.93	2202.42	45.27	1.27	49.73	5.78	8.24	6.87	94.34	-2.46	1.16	13.54	1
		2010	41.51	1723.08	36.26	1.91	102.15	4.77	8.18	3.73	94.86	15.52	1.35	5.43	1
		2009	31.95	1020.80	42.15	1.36	63.50	6.77	8.19	5.85	94.94	31.86	1.15	7.51	1
		2008	97.44	9494.55	37.75	1.08	59.62	2.24	8.14	16.5	95.2	44.21	1.44	4.33	0
		2007	70.5	4970.25	31.38	0.67	33.62	2.34	7.95	4.46	93.64	39.05	1.22	34.69	0
21	Lafarge Cement Wapco Nig	2016	58.9	3469.21	6.79	0.3	9.21	0.7	8.7	3.83	50.46	-17.78	0.93	9.92	0
		2015	84.39	7121.67	15.33	2.91	41.65	2.98	8.66	3.64	61.12	29.82	1.59	39.56	0
		2014	103.38	10687.42	20.34	4.89	43.09	3.96	8.49	4.59	44.28	108.35	1.68	54.46	0
		2013	90.25	8145.06	30.4	2.24	12.74	1.04	8.21	12.68	42.28	12.32	2.57	88.74	0
		2012	49.42	2442.34	21.52	1.48	15.31	1.28	8.18	5.85	55.01	40.74	1.71	24.01	1
		2011	43	1849.00	15.4	0.49	8.68	0.58	8.18	7.49	63.22	42.56	1.48	8.29	1
		2010	37.5	1406.25	11.28	0.25	6.13	0.25	8.07	4.43	63.46	-3.84	1.67	2.66	1
		2009	22.69	514.84	11.57	2.27	35.71	2	7.9	4.59	44.94	5.35	1.58	2.82	1
		2008	47.75	2280.06	27.81	5.83	32.00	4.71	7.79	10.73	34.5	11.92	1.58	14.06	0
		2007	69.26	4796.95	48.99	5.94	28.09	1.25	7.7	13.44	56.89	-2.16	5.3	12.67	0
22	Mobil Nig	2016	209.75	43995.06	38	4.21	31.84	2.58	7.79	13.68	65.22	46.54	2.28	511.21	0
		2015	143.01	20451.86	31.72	4.4	48.85	4.13	7.73	5.95	71.59	-19.3	1.78	182.52	0
		2014	146.61	21494.49	47.18	4.4	40.61	4.56	7.69	0.76	72.48	1.07	1.69	314.35	0
		2013	117.75	13865.06	36.5	4.43	57.97	5.06	7.61	2.36	76.58	-2.55	1.64	107.12	0
		2012	127.43	16238.40	43.68	4.48	58.41	4.58	7.53	0.73	80.37	30.12	1.78	73.27	1
		2011	148.71	22114.66	90.76	10.69	79.08	7.17	7.43	2.11	83.33	6.44	2.33	147.38	1
		2010	136.75	18700.56	65.21	14.18	54.14	4.96	7.17	0.18	129.56	-5.95	4.15	167.18	1
		2009	187.99	35340.24	68.05	6.81	52.85	5.06	7.34	0.1	81.08	-7.06	2.16	89.49	1
		2008	270.95	73413.90	60.58	5.67	65.76	1.23	7.3	0.3	85.75	22.37	5.45	38.69	0
		2007	176.5	31152.25	50.31	9.25	151.59	3.97	7.27	0.72	87.89	7.35	3.21	22.18	0

		2006	51.34	2635.80	21.52	1.48	15.31	1.28	8.18	5.85	55.01	40.74	1.71	24.01	0
23	Nascon Allied	2016	7.68	58.98	30.02	5.92	60.44	6.47	7.39	10.13	67.3	13.06	1.59	0.83	0
		2015	7.13	50.84	29.71	8.13	63.29	6.99	7.21	15.64	56.5	43.8	1.73	0.62	0
		2014	10.05	101.00	29.6	18.99	128.57	14.47	7.1	7.07	49.77	3.81	1.81	0.49	0
		2013	12	144.00	39.17	20.86	88.24	6	7.06	10.44	39.7	-19.21	3.87	1.04	0
		2012	6	36.00	42.06	17.35	67.31	8.75	7.03	38.04	38.47	30.15	2.37	1.08	1
		2011	5.2	27.04	38.9	13.19	60.24	12.47	7	34.81	43.62	15.89	1.49	0.69	1
		2010	7.29	53.14	33.26	17.64	80.65	7.82	6.88	19.29	34.01	1.45	2.59	0.38	1
		2009	4.35	18.92	39.78	13	57.14	9.2	6.91	9.32	43.2	11.14	1.85	0.49	1
		2008	11.83	139.95	33.73	11.8	67.35	5.56	6.87	18.64	48.57	26.16	2.61	0.24	0
		2007	15.34	235.32	36.28	0	0.00	0	6.78	11.89	42.97	32.53	6.62	0.32	0
		2006	43.54	1895.73	19.04	4.38	32.93	2.31	6.78	20.46	29.58	21	2.19	0.67	0
24	National Aviation Handling	2016	3.92	15.37	9.14	2.57	55.56	6.33	7.1	23.2	49.72	-6.37	0.9	0.13	0
		2015	5.08	25.81	8.82	1.98	52.94	4.81	7.17	14.64	59.16	4.49	1	0.12	0
		2014	5.3	28.09	9.71	3.09	76.92	6.13	7.16	18.53	59.15	0.5	1.1	0.15	0
		2013	6.92	47.89	13.02	2.71	48.21	4.39	7.13	25.04	57.11	9.42	1.19	0.31	0
		2012	6.88	47.33	10.9	2.81	51.22	3.94	7.04	7.47	50.32	3.56	1.22	0.17	1
		2011	7.85	61.62	14.7	6.85	89.71	11.82	7	5.11	47.84	12.55	1.06	0.46	1
		2010	10.21	104.24	23.58	11.66	72.92	6.88	6.87	11.91	32.42	4.6	2.02	0.92	1
		2009	9.04	81.72	26.67	11.64	63.37	8.88	6.83	32.45	30.85	36.94	1.62	1.02	1
		2008	21.28	452.84	19.04	4.38	32.93	2.31	6.78	20.46	29.58	21	2.19	0.67	0
		2007	42.66	1819.88	34.71	1.83	15.19	0.44	6.69	13.05	65.52	12.81	4.84	0.62	0
		2006	22.56	508.95	32.43	3.23	113.43	5.34	4.34	21.23	56.64	22.23	5.65	0.45	1
25	Neimeth Int Pharm	2016	0.93	0.86	5.32	0	0.00	0	6.43	21.08	54.54	37.04	1	0.00	0
		2015	1.12	1.25	-29	0	0.00	0	6.34	3.51	47.4	-10.3	1.11	0.04	0
		2014	1.32	1.74	14.02	0	0.00	0	6.44	2.28	41.4	-19.25	0.85	0.02	0
		2013	1.15	1.32	7.33	0.33	10.00	0.48	6.46	2.88	38.42	-13.46	1.07	0.01	0
		2012	0.87	0.76	-4.4	0.8	-20.00	1.51	6.46	1.84	45.49	22.74	0.99	0.00	1
		2011	1.41	1.99	11.2	0	0.00	0	6.49	0.94	67.01	0.45	0.96	0.02	1

No.	Name	Year													
		2010	2.15	4.62	-13.27	0	0.00	0	6.61	1.71	76.86	1.23	0.99	0.02	1
		2009	2.51	6.30	-42.46	2.49	-16.36	5.8	6.46	0.5	62.89	-4.08	1.06	0.30	1
		2008	7.35	54.02	6.01	2.77	93.33	4.22	6.52	6.79	50.19	29.43	1.16	0.02	0
		2007	4.63	21.44	7.17	2.44	55.56	1.98	6.44	16.8	40.53	24.95	1.64	0.03	0
26	Nigeria Breweries	2016	125.01	15627.50	17.13	9.82	127.09	3.07	8.56	3.31	54.81	6.75	3.74	12.82	0
		2015	138.51	19185.02	22.08	10.38	96.68	3.43	8.55	1.43	51.62	10.34	3.54	23.23	0
		2014	165.05	27241.50	24.73	12.1	99.47	3.38	8.54	1.63	50.76	-0.83	4.09	31.58	0
		2013	167	27889.00	38.34	8.61	50.53	1.71	8.4	3.77	55.55	6.31	5.58	32.49	0
		2012	119.05	14172.90	40.71	8.54	56.86	1.95	8.4	4.49	63.16	19.71	5.01	25.30	1
		2011	85.36	7286.33	48.92	4.2	26.04	1.39	8.37	9.76	67	13.56	3.7	25.30	1
		2010	65.7	4316.49	60.46	22.79	86.03	4.47	8.06	11.02	56.14	13.19	5.66	16.08	1
		2009	43.5	1892.25	59.93	26.8	102.71	7.15	8.03	11.19	56.47	12.89	4.31	13.62	1
		2008	42.59	1813.91	79.74	20.26	82.35	6.85	8.02	15.36	69.13	30.17	3.65	11.56	0
		2007	43.29	1874.02	43.87	12.24	58.40	2.98	7.96	17.88	52.31	29.46	4.62	6.25	0
27	Nigerian Northern Flour Mill	2016	6.72	45.16	-6.66	1.36	-27.03	4.78	6.59	9.87	12.42	-90.7	0.41	1.23	0
		2015	13.3	176.89	-989.38	1.73	-35.71	4.68	6.61	22.91	99.51	-7.57	1.37	1.25	0
		2014	20.03	401.20	13.17	2.18	30.53	2.22	6.51	16.11	45.7	-2.65	1.44	1.72	0
		2013	23.44	549.43	14.02	0	0.00	0	6.56	17.26	55.69	-7.68	1.57	2.02	0
		2012	19.93	397.20	0.37	4.53	3000.00	4.92	6.53	6.63	59.46	10.71	1.51	0.00	1
		2011	32.72	1070.60	29.34	2.87	26.17	3.11	6.62	23.47	62.44	12.02	1.55	6.55	1
		2010	27.77	771.17	8.65	0	0.00	0	6.37	26.82	71.76	14.97	1.6	0.15	1
		2009	26.99	728.46	-17.16	1.88	-34.29	0.95	6.29	10.63	68.54	-2.04	2.65	0.49	1
28	Okomu Oil Palm	2016	36.03	1298.16	28.86	0.39	1.94	0.25	7.39	13.05	30.58	47.5	1.87	26.52	0
		2015	26.06	679.12	21.81	1.19	11.06	0.83	7.3	4.78	39.84	12.51	1.84	5.11	0
		2014	71.2	5069.44	9.25	11.11	159.36	7.94	7.48	3.93	24.74	-12.67	1.65	4.80	0
		2013	32	1024.00	14.06	6.14	1111.11	4.7	7.49	12.63	17.79	-8.77	1.49	0.03	0
		2012	19.09	364.43	20.64	4.08	454.55	4.32	7.37	12.26	18.64	82.62	1.13	0.05	1
		2011	16.98	288.32	27.78	1.65	8.77	1.98	6.94	6.29	32.32	28.44	1.16	11.70	1
		2010	26.18	685.39	12.62	1.49	21.74	1.1	6.9	3.09	45.45	0.15	1.82	1.32	1

		2009	30.5	930.25	28.19	1.53	9.88	0.76	6.89	3.39	45.03	68.61	2.46	6.40	1
		2008	42.89	1839.55	4.38	0	0.00	0	6.85	2.47	54.73	2.44	3.02	0.08	0
		2007	47.87	2291.54	26.76	0	46.88	0	21.23	3.45	43.56	5.44	3.56	0.92	0
29	Pharma-Deko	2016	1.88	3.53	-12.56	1.4	-14.85	8.42	6.37	1.95	25.1	-26.1	0.42	1.02	0
		2015	2.15	4.62	36.93	0	0.00	0	6.41	26.88	30.54	-5.38	0.39	11.16	0
		2014	2.06	4.24	10.85	0	0.00	0	6.45	12.83	67.2	47.71	0.75	1.02	0
		2013	2.08	4.33	-14.6	0	0.00	0	6.4	2.01	66.77	2.2	0.74	1.46	0
		2012	3.05	9.30	78.54	0	0.00	0	6.44	4.39	66.1	-12.71	0.75	0.00	1
		2011	3.89	15.13	-1.51	0	0.00	0	6.41	29.63	141.58	140.36	1.55	0.58	1
		2010	4.63	21.44	41.81	0	0.00	0	6.21	43.21	168.2	-1.49	1.94	21.72	1
		2009	7.8	60.84	71.39	0	0.00	0	6.1	0.2	151.9	-54.6	1.92	21.53	1
		2008	12.62	159.26	107.06	0	0.00	0	6.17	2.15	112.43	39.87	1.8	4.33	0
		2007	5.08	25.81	364.68	0	0.00	0	6.18	3.34	104.44	21.81	1.36	6.50	0
		2006	4.56	20.79	321.45	0	0.00	0	6.33	3.23	123.55	22.34	2.23	10.43	0
30	Presco	2016	39.28	1542.92	41.7	1.2	454.55	2.49	7.92	3.11	37.33	50.42	0.86	0.05	0
		2015	31.5	992.25	7.64	1.8	43.10	3.03	7.74	1.21	45.21	14.34	1.05	5.38	0
		2014	35.25	1242.56	13.05	0.29	3.73	0.41	7.54	0.18	42.88	7.69	1.13	7.18	0
		2013	32.45	1053.00	7.69	3.06	74.42	2.51	7.51	0.39	46.78	-24.59	1.69	1.66	0
		2012	12.83	164.61	20.41	3.57	27.89	5.85	7.45	0.46	38.99	31.81	1	12.60	1
		2011	7.55	57.00	38.3	2	28.09	5.73	7.4	0.12	81.21	58.49	1.16	3.17	1
		2010	6.08	36.97	31.13	2.69	18.18	2.88	6.87	2.19	52.32	34.5	1.46	1.21	1
		2009	6.27	39.31	9.13	3.89	120.83	5.23	6.88	17.61	65.43	1.01	1.4	0.06	1
		2008	19.78	391.25	26.4	0.44	2.99	0.25	6.75	5.41	55.01	74.88	2.34	0.45	0
		2007	12.22	149.33	1.9	6.44	800.00	3.87	6.67	2.3	58.02	7.71	2.24	0.00	0
31	Redstar Express	2016	4.13	17.06	15.12	5.16	57.89	7.47	6.57	16.91	41.11	-0.38	1.1	0.32	0
		2015	4.48	20.07	18.62	4.22	41.54	6.44	6.58	17.68	46.04	3.77	1.12	0.42	0
		2014	4.48	20.07	21.21	4.28	36.76	6.35	6.54	17.68	44.8	21.21	1.12	0.46	0
		2013	4.22	17.81	17.69	4.68	46.15	5.45	6.48	16.6	43.33	5.25	1.29	0.27	0
		2012	2.77	7.67	19.16	5.34	50.00	8.81	6.46	17.68	42.66	19.53	1.03	0.27	1

		2011	2.89	8.35	21.38	6.38	52.63	12.64	6.44	6.02	43.68	1.64	0.94	0.32	1
		2010	3.33	11.09	14.06	7	96.77	10.55	6.4	5.16	49.21	4.54	1.16	0.10	1
		2009	2.71	7.34	19.4	6.26	59.52	11.77	6.37	15.55	45.59	27.8	0.99	0.18	1
		2008	8.01	64.16	24.31	5.75	57.58	5.01	6.29	19.48	40.2	16.12	1.55	0.11	0
		2007	8.69	75.52	6.31	0.44	31.75	2.18	8.91	3.16	78.21	-1.02	0.99	0.40	0
		2006	7.03	49.42	2.61	1.64	-257.69	8.82	8.84	9.31	75.74	63.4	0.94	0.07	0
32	Studio Press Nig.	2016	2.3	5.29	13.1	0	0.00	0	7.01	5.14	80.75	29.93	0.94	0.18	0
		2015	2.3	5.29	-5.51	0	0.00	0	7.03	5.02	84	7.46	0.97	0.03	0
		2014	2.41	5.81	-19.68	0	0.00	0	7.01	6.94	82.49	49.02	0.96	0.35	0
		2013	2.59	6.71	-2.21	0	0.00	0	6.97	20.39	76.93	-9.69	0.93	0.01	0
		2012	2.72	7.40	0.11	0	#DIV/0!	0	6.87	1.66	70.54	-11.37	0.92	0.00	1
		2011	2.85	8.12	0.21	0	0.00	0	6.9	3.2	85.6	2.02	1.07	0.05	1
		2010	2.92	8.53	1.26	0	0.00	0	6.9	6.22	75.05	25.4	0.97	0.06	1
		2009	3.02	9.12	19.18	0	0.00	0	6.91	0.05	75.62	62.23	0.97	0.18	1
		2008	2.48	6.15	-14.65	0	0.00	0	6.83	0.02	78.59	62.09	1.06	0.15	0
		2007	1.66	2.76	3.74	0	0.00	0	6.66	0.06	79.15	69.12	0.82	0.19	0
33	Tantalizer	2016	0.5	0.25	-137.65	0	0.00	0	6.7	0.65	85.11	0.54	1.17	0.10	0
		2015	0.5	0.25	-40.29	0	0.00	0	6.71	0.24	65.51	-33.86	0.97	0.05	0
		2014	0.5	0.25	-21.18	0	0.00	0	6.76	0.93	53.44	-17.11	0.81	0.03	0
		2013	0.5	0.25	-9.06	0	0.00	0	6.78	0.28	44.48	-8.82	0.72	0.01	0
		2012	0.6	0.36	2.7	0	0.00	0	6.82	5.93	42.62	-5.82	0.68	0.00	1
		2011	0.92	0.85	1.56	0	0.00	0	6.77	3.98	32.99	-9.3	0.6	0.00	1
		2010	1.16	1.35	1.55	3.07	300.00	8.12	6.76	4.55	36.64	18.97	0.75	0.00	1
		2009	2.72	7.40	8.11	0.19	0.00	0.2	6.71	6.28	26.67	30.78	1.26	0.01	1
		2008	3.45	11.90	8.67	2.45	#DIV/0!	0.34	7.56	6.45	34.23	56.32	3.45	0.00	0
34	Tiger Branded	2016	3.15	9.92	43.7	0	0.00	0	7.9	18.14	69.38	120.22	0.96	4.49	0
		2015	3.01	9.06	520.52	0	0.00	0	7.69	6.72	106.22	16.38	1.18	6.30	0
		2014	7.03	49.42	-65.34	0	0.00	0	7.74	8.3	82.47	37.74	1.24	1.54	0
		2013	9.63	92.74	-37.36	0	0.00	0	7.82	2.16	72.51	-48.94	1.5	2.53	0

		Year													
		2012	6.27	39.31	-8.94	0	0.00	0	7.89	2.35	67.3	-11.48	1.11	0.30	1
		2011	12.06	145.44	2.32	3.1	433.33	10.31	7.94	2.81	65.34	-1.95	0.95	0.01	1
		2010	17.29	298.94	10.03	2.02	51.85	1.68	7.85	3.12	61.34	10.12	1.82	0.29	1
		2009	9.07	82.26	19.46	2.63	30.63	3.39	7.8	3.02	55.47	28.09	1.33	1.23	1
35	Total Nigeria	2016	245	60025.00	62.78	2.49	23.02	3.36	8.14	15.95	82.79	39.86	1.57	1899.22	0
		2015	160.01	25603.20	24.92	4.11	84.90	6.89	7.92	16.14	80.58	-13.54	1.4	142.09	0
		2014	161.25	26001.56	31.76	3.91	84.42	7.72	7.98	15.15	85.42	1.03	1.36	169.78	0
		2013	154.5	23870.25	40.29	4.28	63.65	5.88	7.9	11.89	83.32	9.33	1.56	246.80	0
		2012	155.29	24114.98	41.33	4.46	72.67	8.29	7.88	4.4	85.14	25.23	1.39	189.34	1
		2011	211.05	44542.10	38.03	4.63	71.24	4.25	7.77	16.43	82.93	8.31	1.92	126.11	1
		2010	198.22	39291.17	44.48	6.39	64.21	4.39	7.74	10.48	83.65	-10.06	2.29	256.32	1
		2009	146.81	21553.18	56.83	8.56	107.19	8.41	7.7	8.64	85.95	0.65	1.88	136.66	1
		2008	248.05	61528.80	60.44	8.29	78.83	5.01	7.62	4.86	82.6	29.18	2.48	167.44	0
		2007	172.5	29756.25	51.36	7.56	82.38	4.39	7.55	16.57	82.14	8.51	2.54	91.97	0
36	Trans-Nationwide Express	2016	1.32	1.74	4.72	3.52	100.00	10	5.75	2.46	24.3	0.65	0.6	0.01	0
		2015	1.09	1.19	11.91	3.03	38.46	8.85	5.82	1.8	34.77	11.22	0.69	0.07	0
		2014	1.99	3.96	16.8	3.17	29.41	8.23	5.8	3.4	36.65	0.15	0.75	0.12	0
		2013	1.89	3.57	20.3	1.5	12.82	4.28	5.82	2.62	42.62	19.19	0.78	0.15	0
		2012	3.12	9.73	-10.93	1.64	-29.41	1.77	5.78	1.11	48.02	6.83	1.41	0.03	1
		2011	4.93	24.30	10.64	0	0.00	0	5.76	1.98	21.12	8.55	1.42	0.06	1
		2010	6.43	41.34	12.04	0	0.00	0	5.71	2.39	25.39	-0.65	1.89	0.14	1
		2009	6.86	47.06	14.6	0	0.00	0	5.71	0.82	31.14	9.98	1.99	0.18	1
		2008	8.63	74.48	30.8	0	0.00	0	5.43	8.93	53.99	25.42	4.47	0.13	0
		2007	1.91	3.65	35.27	0	0.00	0	5.36	4.5	43.5	38.12	2.32	0.12	0
		2006	7.34	53.88	34.24	1.23	0.00	1.87	5.67	5.45	45.86	24.44	4.56	0.92	0
37	Tripple Gee & Company	2016	1.5	2.25	2.44	1.03	7.14	3.08	6.29	1.39	100	3.78	1.33	0.31	0
		2015	1.73	2.99	3.62	0.55	25.00	1.18	6.26	0.58	100	-18.2	1.46	0.01	0
		2014	1.97	3.88	1.41	0.56	66.67	1.1	6.24	0.42	100	-5.29	1.52	0.00	0

		Year													
		2013	2.18	4.75	1.74	0	0.00	0	6.22	0.44	100	61.83	1.61	0.00	0
		2012	2.62	6.86	-0.97	0	0.00	0	6.23	4.69	62.51	14.44	1.29	0.00	1
		2011	3.18	10.11	-7.74	3.77	-110.00	3.72	6.16	1.29	55.95	4.56	1.57	0.01	1
		2010	4.1	16.81	-7.42	3.81	-110.00	3.06	6.15	0.36	42.18	-48.22	1.67	0.01	1
		2009	6.51	42.38	16.61	2.92	34.48	2.07	6.23	0.33	49.13	29.02	1.9	0.08	1
		2008	12.31	151.54	13	2.23	32.26	1.22	6.17	0.45	47.3	22.82	2.29	0.10	0
		2007	5.32	28.30	7.13	0	0.00	0	6.19	1.25	52.42	64.48	1.65	0.03	0
38	UAC Of Nig	2016	18.48	341.51	7.41	2.42	89.23	10.35	8.14	6.91	44.68	15.67	0.68	3.80	0
		2015	31.63	1000.46	6.94	4.74	205.84	15.29	8.11	7.14	42.37	-14.6	0.73	2.37	0
		2014	51.01	2602.02	14.41	4.99	99.71	9.97	8.12	6.1	42.89	8.82	0.93	11.56	0
		2013	57	3249.00	13.89	2.73	33.78	1.5	8.09	7.23	42.03	13.04	2.24	8.76	0
		2012	35.5	1260.25	11.72	2.9	50.19	3.07	8.09	3.57	50.72	16.76	1.45	6.60	1
		2011	34.15	1166.22	5.97	2.57	91.89	1.09	8.08	3.6	53.07	14	2.89	0.14	1
		2010	43.93	1929.84	11.96	1.68	31.66	1.67	8.01	7.08	55.47	-7.4	1.56	3.96	1
		2009	32.94	1085.04	13.74	3.9	59.24	5.07	7.97	5.88	52.21	5.62	1.29	9.86	1
		2008	44.63	1991.84	14.22	1.7	23.85	2.25	7.98	3.98	52.4	43.96	1.28	10.69	0
		2007	41.25	1701.56	13.18	1.47	25.62	1.41	7.9	6.61	56.33	30.81	1.61	7.90	0
		2006	12.06	145.44	2.32	3.1	433.33	10.31	7.94	2.81	65.34	-1.95	0.95	0.01	0
39	University Press	2016	4.9	24.01	3.11	2.75	117.65	4.71	6.5	13.2	24.83	-14.82	0.83	0.03	0
		2015	5.01	25.10	6	5.31	109.38	5.83	6.45	6.3	20.17	-29.13	1.11	0.10	0
		2014	4.35	18.92	10.43	5.08	64.81	8.29	6.47	6.23	24.59	5.43	0.86	0.29	0
		2013	4.7	22.09	12.04	5.41	58.33	8.37	6.45	11.52	22.34	11.07	0.87	0.36	0
		2012	4.04	16.32	12.29	5.63	66.04	7.83	6.43	14.7	31.04	11.45	1.03	0.28	1
		2011	4.96	24.60	11.92	5.97	67.35	9.8	6.38	11.38	26.33	-2.89	0.87	0.24	1
		2010	6.67	44.49	22.02	5.93	42.86	4.9	6.31	0.83	37.82	19.2	1.59	0.59	1
		2009	5.92	35.05	21.93	6	43.21	7.04	6.24	11.4	37.08	68.68	1.22	0.66	1
		2008	9.9	98.01	16.96	3.1	26.56	2.96	6.15	2.59	31.83	38.34	1.37	0.41	0
		2007	7	49.00	22.24	6.17	30.14	2.66	5.74	3.72	55.65	26.2	2.88	0.53	0
40	Updc Property	2016	3.77	14.21	-4.56	0	0.00	0	7.85	0.13	52.01	23.9	0.58	0.77	0

		2015	8.42	70.90	1.07	1.19	200.00	8.21	7.86	0.14	50.56	-56.23	0.65	0.06	0
		2014	16.78	281.57	9.96	1.41	26.67	5.92	7.83	0.19	47.05	3.55	0.71	4.41	0
		2013	16.76	280.90	9.42	1.47	30.60	3.73	7.82	0.1	48.9	-6.15	0.88	5.38	0
		2012	10.71	114.70	6.98	1.25	40.99	5.59	7.85	0.1	56.21	77.5	0.79	2.59	1
		2011	16	256.00	5.57	1.1	45.16	4.68	7.84	0.08	56.59	-17.22	0.8	1.54	1
		2010	20.16	406.43	7.62	0.79	24.26	2.47	7.84	2.58	57.01	-38.53	0.89	2.86	1
		2009	18.38	337.82	8	1.32	34.39	3.85	7.79	0.83	52.08	0.02	0.87	4.88	1
		2008	25.3	640.09	11.92	0	0.00	0	7.81	0.41	51.73	134.81	0.98	11.22	0
		2007	22.84	521.67	5.05	0.78	36.08	1.49	7.69	0.88	56.81	3.49	1.09	0.94	0
41	Vitafoam Nig	2016	3.91	15.29	-0.91	2.25	-76.92	12.71	7.13	2.13	73.71	-21.04	0.91	0.15	0
		2015	4.5	20.25	5.37	1.89	96.55	5.16	7.16	3.06	68.02	2.83	1.05	0.08	0
		2014	4.41	19.45	14.38	2.05	47.62	7.44	7.08	6.29	74.72	2.29	1.02	0.40	0
		2013	4.02	16.16	13.19	2.47	60.00	6.12	7	2.69	68.78	12.84	1.09	0.25	0
		2012	3.51	12.32	16.28	2.36	44.12	8.2	7.02	3.56	70.42	-0.28	0.99	0.46	1
		2011	5.5	30.25	18.49	2.64	43.48	5.93	6.97	4.94	69.8	36.67	1.14	0.48	1
		2010	5.69	32.38	20.83	4.13	47.62	4.5	6.77	10.55	58.52	8.87	1.5	0.40	1
		2009	4.63	21.44	23.73	4.55	47.62	5.31	6.73	12.8	59.97	19.41	1.46	0.40	1
		2008	9.52	90.63	36.85	4.47	29.41	5.38	6.66	13.18	58.58	32.89	1.42	0.72	0
		2007	6.91	47.75	31.34	2.69	20.37	1.14	6.53	18.17	59.05	51.43	2.94	0.29	0
		2006	20.16	406.43	7.62	0.79	24.26	2.47	7.84	2.58	57.01	-38.53	0.89	2.86	0

Source: Financial Statement and Annual Accounts of selected firms.

Appendix 2

Analyses of the Effect of Dividend Policy on Shareholders' Wealth

Appendix 2a: Analyses of the effect of dividend policy on shareholders' wealth for financial firms

Pooled OLS Model

Dependent Variable: SW
Method: Panel Least Squares
Date: 02/08/18   Time: 21:32
Sample: 2006 2016
Periods included: 11
Cross-sections included: 19
Total panel (unbalanced) observations: 183

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DPO	0.745370	0.604975	1.232067	0.2196
DY	-0.284433	0.161943	-1.756371	0.0808
SIZE	6.294911	1.254087	5.019517	0.0000
GR	0.039946	0.012626	3.163839	0.0018
PROF	0.041476	0.021620	1.918431	0.0567
FLIQ	0.031527	0.053846	0.585508	0.5590
LEV	-0.061775	0.047366	-1.304198	0.1939
C	-41.36973	7.630192	-5.421846	0.0000

R-squared	0.372995	Mean dependent var	7.025246
Adjusted R-squared	0.347914	S.D. dependent var	9.227236
S.E. of regression	7.451160	Akaike info criterion	6.897348
Sum squared resid	9715.964	Schwarz criterion	7.037654
Log likelihood	-623.1074	Hannan-Quinn criter.	6.954221
F-statistic	14.87207	Durbin-Watson stat	0.504786
Prob(F-statistic)	0.000000		

Fixed Effect Model

Dependent Variable: SW
Method: Panel Least Squares
Date: 02/08/18   Time: 21:12
Sample: 2006 2016
Periods included: 11
Cross-sections included: 19
Total panel (unbalanced) observations: 183

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	77.90425	20.35267	3.827717	0.0002
DPO	0.092157	0.471981	0.195255	0.8454
DY	-0.088892	0.139938	-0.635220	0.5262
SIZE	8.967713	2.481963	3.613153	0.0004
GR	0.023503	0.010447	2.249701	0.0259
PROF	0.018454	0.017130	1.077281	0.2830
FLIQ	0.027056	0.047853	0.565409	0.5726
LEV	0.025737	0.056598	0.454724	0.6499

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.700044	Mean dependent var	7.025246
Adjusted R-squared	0.652280	S.D. dependent var	9.227236
S.E. of regression	5.441096	Akaike info criterion	6.356751
Sum squared resid	4648.068	Schwarz criterion	6.812743
Log likelihood	-555.6427	Hannan-Quinn criter.	6.541587
F-statistic	14.65639	Durbin-Watson stat	1.690189
Prob(F-statistic)	0.000000		

Random Effect Model

Dependent Variable: SW
Method: Panel EGLS (Cross-section random effects)
Date: 02/08/18   Time: 21:15
Sample: 2006 2016
Periods included: 11
Cross-sections included: 19
Total panel (unbalanced) observations: 183
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-15.67426	9.062736	-1.729528	0.0855
DPO	0.360841	0.465632	0.774949	0.4394
DY	-0.277326	0.130869	-2.119114	0.0355
SIZE	2.161895	1.336865	1.617138	0.1076
GR	0.042679	0.009554	4.467243	0.0000
PROF	0.026322	0.016834	1.563601	0.1197
FLIQ	-0.024995	0.043574	-0.573609	0.5670
LEV	0.070180	0.046755	1.501010	0.1352

Effects Specification

		S.D.	Rho
Cross-section random		3.980359	0.3486
Idiosyncratic random		5.441096	0.6514

Weighted Statistics

R-squared	0.155292	Mean dependent var	2.795989
Adjusted R-squared	0.121504	S.D. dependent var	6.334313
S.E. of regression	5.950788	Sum squared resid	6197.079
F-statistic	4.596043	Durbin-Watson stat	0.648796
Prob(F-statistic)	0.000097		

Unweighted Statistics

R-squared	0.299029	Mean dependent var	7.025246
Sum squared resid	10862.12	Durbin-Watson stat	0.370152

Chow Test

Redundant Fixed Effects Tests
Equation: Untitled
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	9.510039	(18,157)	0.0000
Cross-section Chi-square	134.929294	18	0.0000

Hausman Test

Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	41.382496	7	0.0000

Appendix 2b: Analyses of the effect of dividend policy on shareholders' wealth for non-financial firms

Pooled OLS Model

Dependent Variable: SW
Method: Panel Least Squares
Date: 02/08/18   Time: 21:35
Sample: 2006 2016
Periods included: 11
Cross-sections included: 41
Total panel (unbalanced) observations: 395

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DPO	0.011582	0.003759	3.081409	0.0022
DY	0.409166	0.676228	0.605072	0.5455
SIZE	39.42976	3.244729	12.15194	0.0000
GR	6.37E-06	0.000938	0.006786	0.9946
PROF	0.081132	0.032973	2.460588	0.0143
FLIQ	0.307586	0.201226	1.528559	0.1272
LEV	0.462911	0.113813	4.067281	0.0001
C	-278.7586	23.00866	-12.11538	0.0000

R-squared	0.363923	Mean dependent var		33.58701
Adjusted R-squared	0.352418	S.D. dependent var		54.42593
S.E. of regression	43.79790	Akaike info criterion		10.41709
Sum squared resid	742365.1	Schwarz criterion		10.49768
Log likelihood	-2049.376	Hannan-Quinn criter.		10.44902
F-statistic	31.63100	Durbin-Watson stat		0.300557
Prob(F-statistic)	0.000000			

Fixed Effect Model

Dependent Variable: SW
Method: Panel Least Squares
Date: 02/08/18   Time: 21:21
Sample: 2006 2016
Periods included: 11
Cross-sections included: 41
Total panel (unbalanced) observations: 395

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DPO	0.009823	0.002065	4.757493	0.0000
DY	-1.346562	0.461128	-2.920149	0.0037
SIZE	34.13009	7.427786	4.594921	0.0000
GR	9.83E-05	0.000542	0.181443	0.8561
PROF	0.035631	0.020001	1.781432	0.0757
FLIQ	-0.260083	0.188310	-1.381142	0.1681
LEV	-0.008612	0.096301	-0.089429	0.9288
C	-201.2677	53.47468	-3.763794	0.0002

Effects Specification				

Cross-section fixed (dummy variables)

R-squared	0.832766	Mean dependent var		33.58701
Adjusted R-squared	0.810115	S.D. dependent var		54.42593

S.E. of regression	23.71656	Akaike info criterion	9.283701
Sum squared resid	195178.9	Schwarz criterion	9.767211
Log likelihood	-1785.531	Hannan-Quinn criter.	9.475272
F-statistic	36.76458	Durbin-Watson stat	1.018080
Prob(F-statistic)	0.000000		

Random Effect Model

Dependent Variable: SW
Method: Panel EGLS (Cross-section random effects)
Date: 02/08/18   Time: 21:22
Sample: 2006 2016
Periods included: 11
Cross-sections included: 41
Total panel (unbalanced) observations: 395
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DPO	0.009855	0.002063	4.777647	0.0000
DY	-1.219581	0.453471	-2.689436	0.0075
SIZE	37.32839	5.551978	6.723440	0.0000
GR	0.000137	0.000540	0.253313	0.8002
PROF	0.040963	0.019786	2.070267	0.0391
FLIQ	-0.181125	0.180061	-1.005908	0.3151
LEV	0.043040	0.092678	0.464397	0.6426
C	-228.8036	40.26633	-5.682256	0.0000

Effects Specification			
		S.D.	Rho
Cross-section random		36.02551	0.6976
Idiosyncratic random		23.71656	0.3024

Weighted Statistics			
R-squared	0.672428	Mean dependent var	6.875633
Adjusted R-squared	0.157459	S.D. dependent var	26.01228
S.E. of regression	23.89809	Sum squared resid	221022.9
F-statistic	11.51900	Durbin-Watson stat	0.895508
Prob(F-statistic)	0.000000		

Unweighted Statistics			
R-squared	0.316686	Mean dependent var	33.58701
Sum squared resid	797495.2	Durbin-Watson stat	0.248187

Chow Test

Redundant Fixed Effects Tests
Equation: Untitled
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.

| Cross-section F | 24.320459 | (40,347) | 0.0000 |
| Cross-section Chi-square | 527.690230 | 40 | 0.0000 |

Hausman Test

Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	13.142419	7	0.0687

Appendix 3:

Analyses of the Effect of Dividend Policy on Stock Market Volatility

Appendix 3a: Analyses of the effect of dividend policy on stock market volatility for financial firms

Pooled OLS Model

Dependent Variable: SMV
Method: Panel Least Squares
Date: 02/10/18   Time: 16:07
Sample: 2006 2016
Periods included: 11
Cross-sections included: 19
Total panel (unbalanced) observations: 184

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DPO	41.70852	22.43631	1.858974	0.0647
DY	-12.52271	6.004313	-2.085619	0.0385
GR	0.988929	0.466075	2.121824	0.0353
LEV	1.452466	1.687277	0.860834	0.3905
SIZE	16.00557	47.92969	0.333939	0.7388
EVOL	48.45783	7.408545	6.540802	0.0000
FC	-54.82640	42.85905	-1.279226	0.2025
C	-147.9099	289.2656	-0.511329	0.6098

R-squared	0.338176	Mean dependent var	133.3061
Adjusted R-squared	0.311854	S.D. dependent var	332.8395
S.E. of regression	276.1056	Akaike info criterion	14.12195
Sum squared resid	13417239	Schwarz criterion	14.26173
Log likelihood	-1291.219	Hannan-Quinn criter.	14.17860
F-statistic	12.84740	Durbin-Watson stat	0.651786
Prob(F-statistic)	0.000000		

Fixed Effect Model

Dependent Variable: SMV
Method: Panel Least Squares
Date: 02/08/18   Time: 21:27
Sample: 2006 2016
Periods included: 11
Cross-sections included: 19
Total panel (unbalanced) observations: 184

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DPO	7.264883	21.24391	0.341975	0.7328
DY	-1.950419	6.214799	-0.313835	0.7541
GR	0.006624	0.482589	0.013727	0.9891
LEV	1.898716	2.255057	0.841981	0.4011
SIZE	-627.2892	118.6216	-5.288153	0.0000
EVOL	35.27192	8.673865	4.066460	0.0001
FC	-141.9632	40.97971	-3.464231	0.0007
C	5146.869	974.9204	5.279271	0.0000

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.530255	Mean dependent var	133.3061
Adjusted R-squared	0.455928	S.D. dependent var	332.8395
S.E. of regression	245.5064	Akaike info criterion	13.97479
Sum squared resid	9523199.	Schwarz criterion	14.42908
Log likelihood	-1259.681	Hannan-Quinn criter.	14.15892
F-statistic	7.134110	Durbin-Watson stat	0.629196
Prob(F-statistic)	0.000000		

Random Effect Model

Dependent Variable: SMV
Method: Panel EGLS (Cross-section random effects)
Date: 02/08/18   Time: 21:27
Sample: 2006 2016
Periods included: 11
Cross-sections included: 19
Total panel (unbalanced) observations: 184
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DPO	41.70852	19.94983	2.090671	0.0380
DY	-12.52271	5.338890	-2.345565	0.0201
GR	0.988929	0.414423	2.386282	0.0181
LEV	1.452466	1.500286	0.968126	0.3343
SIZE	16.00557	42.61792	0.375560	0.7077
EVOL	48.45783	6.587499	7.356028	0.0000
FC	-54.82640	38.10923	-1.438665	0.1520
C	-147.9099	257.2080	-0.575060	0.5660

Effects Specification

	S.D.	Rho
Cross-section random	0.000000	0.0000
Idiosyncratic random	245.5064	1.0000

Weighted Statistics

R-squared	0.338176	Mean dependent var	133.3061
Adjusted R-squared	0.311854	S.D. dependent var	332.8395
S.E. of regression	276.1056	Sum squared resid	13417239
F-statistic	12.84740	Durbin-Watson stat	0.651786
Prob(F-statistic)	0.000000		

Unweighted Statistics

R-squared	0.338176	Mean dependent var	133.3061
Sum squared resid	13417239	Durbin-Watson stat	0.651786

Chow Test

Redundant Fixed Effects Tests
Equation: Untitled
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	3.589237	(18,158)	0.0000
Cross-section Chi-square	63.076958	18	0.0000

Hausman Test

Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	58.755467	7	0.0000

Appendix 3b: Analyses of the effect of dividend policy on stock market volatility for non-financial firms

Pooled OLS Model

Dependent Variable: SMV
Method: Panel Least Squares
Date: 02/08/18   Time: 21:29
Sample: 2006 2016
Periods included: 11
Cross-sections included: 41
Total panel (unbalanced) observations: 395

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DPO	4.440883	0.782707	5.673750	0.0000
DY	72.80745	140.1221	0.519600	0.6036
GR	-0.006386	0.195550	-0.032654	0.9740
LEV	74.66574	23.89085	3.125287	0.0019
SIZE	4492.153	677.1143	6.634261	0.0000
EVOL	42.20761	4.513121	9.352199	0.0000
FC	-969.5728	942.2728	-1.028973	0.3041
C	-32966.66	4767.628	-6.914688	0.0000

R-squared	0.380537	Mean dependent var		4082.769
Adjusted R-squared	0.369332	S.D. dependent var		11494.00
S.E. of regression	9127.910	Akaike info criterion		21.09611
Sum squared resid	3.22E+10	Schwarz criterion		21.17669
Log likelihood	-4158.481	Hannan-Quinn criter.		21.12803
F-statistic	33.96211	Durbin-Watson stat		0.623038
Prob(F-statistic)	0.000000			

Fixed Effect Model

Dependent Variable: SMV
Method: Panel Least Squares
Date: 02/08/18   Time: 21:30
Sample: 2006 2016
Periods included: 11
Cross-sections included: 41
Total panel (unbalanced) observations: 395

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DPO	4.020311	0.574840	6.993793	0.0000
DY	-204.4007	130.9193	-1.561273	0.1194
GR	-0.004251	0.151255	-0.028102	0.9776
LEV	2.228467	26.73045	0.083368	0.9336
SIZE	4997.107	2139.898	2.335208	0.0201
EVOL	14.90265	3.904524	3.816764	0.0002
FC	-937.0146	703.5889	-1.331764	0.1838
C	-30844.55	15365.99	-2.007326	0.0455

Effects Specification				

Cross-section fixed (dummy variables)

R-squared	0.707247	Mean dependent var		4082.769

Adjusted R-squared	0.667595	S.D. dependent var	11494.00
S.E. of regression	6626.819	Akaike info criterion	20.54911
Sum squared resid	1.52E+10	Schwarz criterion	21.03262
Log likelihood	-4010.450	Hannan-Quinn criter.	20.74069
F-statistic	17.83617	Durbin-Watson stat	1.190981
Prob(F-statistic)	0.000000		

Random Effect Model

Dependent Variable: SMV
Method: Panel EGLS (Cross-section random effects)
Date: 02/08/18   Time: 21:30
Sample: 2006 2016
Periods included: 11
Cross-sections included: 41
Total panel (unbalanced) observations: 395
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DPO	4.088844	0.573411	7.130738	0.0000
DY	-114.5241	122.5163	-0.934767	0.3505
GR	0.006256	0.149067	0.041968	0.9665
LEV	32.63848	23.59844	1.383078	0.1674
SIZE	5194.187	1010.856	5.138403	0.0000
EVOL	21.84994	3.742857	5.837771	0.0000
FC	-943.6154	690.0663	-1.367427	0.1723
C	-34516.08	7206.596	-4.789511	0.0000

Effects Specification			
		S.D.	Rho
Cross-section random		4474.197	0.3131
Idiosyncratic random		6626.819	0.6869

Weighted Statistics			
R-squared	0.238840	Mean dependent var	1732.893
Adjusted R-squared	0.225073	S.D. dependent var	7934.919
S.E. of regression	6989.741	Sum squared resid	1.89E+10
F-statistic	17.34782	Durbin-Watson stat	0.952396
Prob(F-statistic)	0.000000		

Unweighted Statistics			
R-squared	0.336471	Mean dependent var	4082.769
Sum squared resid	3.45E+10	Durbin-Watson stat	0.521378

Chow Test

Redundant Fixed Effects Tests
Equation: Untitled
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	12.960334	(40,348)	0.0000
Cross-section Chi-square	360.303048	40	0.0000

Hausman Test

Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	50.933516	7	0.0000

Appendix 4:

Analyses of the Effect of Dividend Policy on Firms' Stock Liquidity

Appendix 4a: Analyses of the effect of dividend policy on firms' stock liquidity financial firms

Pooled OLS Model

Dependent Variable: SLIQ
Method: Panel Least Squares
Date: 02/08/18   Time: 21:44
Sample: 2006 2016
Periods included: 11
Cross-sections included: 19
Total panel (unbalanced) observations: 184

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DPO	0.109747	0.096930	1.132237	0.2591
DY	0.082201	0.026378	3.116221	0.0021
SIZE	-0.173824	0.198785	-0.874434	0.3831
IO	0.352374	0.165415	2.130240	0.0345
LEV	-0.013426	0.007365	-1.822958	0.0700
PROF	-0.000172	0.003354	-0.051139	0.9593
C	2.706966	1.207471	2.241848	0.0262

R-squared	0.159003	Mean dependent var	1.085783
Adjusted R-squared	0.130494	S.D. dependent var	1.300094
S.E. of regression	1.212302	Akaike info criterion	3.260220
Sum squared resid	260.1327	Schwarz criterion	3.382528
Log likelihood	-292.9403	Hannan-Quinn criter.	3.309793
F-statistic	5.577404	Durbin-Watson stat	1.312285
Prob(F-statistic)	0.000025		

Fixed Effect Model

Dependent Variable: SLIQ
Method: Panel Least Squares
Date: 02/08/18   Time: 21:44
Sample: 2006 2016
Periods included: 11
Cross-sections included: 19
Total panel (unbalanced) observations: 184

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DPO	0.086158	0.094515	0.911582	0.3634
DY	0.105145	0.027763	3.787297	0.0002
SIZE	-1.176890	0.480964	-2.446939	0.0155
IO	0.102477	0.168637	0.607679	0.5443
LEV	-0.043480	0.010368	-4.193461	0.0000
PROF	-0.002388	0.003399	-0.702448	0.4834
C	13.14892	3.958354	3.321816	0.0011

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.369079	Mean dependent var	1.085783
Adjusted R-squared	0.273846	S.D. dependent var	1.300094
S.E. of regression	1.107871	Akaike info criterion	3.168465
Sum squared resid	195.1531	Schwarz criterion	3.605277
Log likelihood	-266.4988	Hannan-Quinn criter.	3.345510
F-statistic	3.875522	Durbin-Watson stat	1.727952
Prob(F-statistic)	0.000000		

Random Effect Model

Dependent Variable: SLIQ
Method: Panel EGLS (Cross-section random effects)
Date: 02/08/18   Time: 21:44
Sample: 2006 2016
Periods included: 11
Cross-sections included: 19
Total panel (unbalanced) observations: 184
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DPO	0.120919	0.091371	1.323392	0.1874
DY	0.085584	0.025695	3.330690	0.0011
SIZE	-0.102587	0.220504	-0.465237	0.6423
IO	0.322413	0.154392	2.088283	0.0382
LEV	-0.019759	0.007963	-2.481370	0.0140
PROF	-0.001456	0.003242	-0.449250	0.6538
C	2.581370	1.398190	1.846223	0.0665

Effects Specification			
		S.D.	Rho
Cross-section random		0.414249	0.1227
Idiosyncratic random		1.107871	0.8773

Weighted Statistics			
R-squared	0.162567	Mean dependent var	0.708933
Adjusted R-squared	0.134179	S.D. dependent var	1.232530
S.E. of regression	1.145534	Sum squared resid	232.2679
F-statistic	5.726681	Durbin-Watson stat	1.467327
Prob(F-statistic)	0.000018		

Unweighted Statistics			
R-squared	0.152493	Mean dependent var	1.085783
Sum squared resid	262.1464	Durbin-Watson stat	1.300086

Chow test

Redundant Fixed Effects Tests
Equation: Untitled
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	2.941213	(18,159)	0.0002
Cross-section Chi-square	52.883017	18	0.0000

Hausman Test

Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	18.140498	6	0.0059

Appendix 4b: Analyses of the effect of dividend policy on firms' stock liquidity for non-financial firms

Pooled OLS Model

Dependent Variable: SLIQ
Method: Panel Least Squares
Date: 02/08/18   Time: 21:46
Sample: 2006 2016
Periods included: 11
Cross-sections included: 41
Total panel (unbalanced) observations: 395

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DPO	-0.000184	0.000320	-0.573315	0.5668
DY	0.835457	0.056443	14.80170	0.0000
SIZE	-0.609950	0.271092	-2.249977	0.0250
IO	3.719988	0.147645	25.19548	0.0000
LEV	-0.021543	0.009652	-2.231889	0.0262
PROF	0.004966	0.002846	1.744783	0.0818
C	0.176779	1.887295	0.093668	0.9254

R-squared	0.701808	Mean dependent var	3.855266
Adjusted R-squared	0.697197	S.D. dependent var	6.737168
S.E. of regression	3.707300	Akaike info criterion	5.476048
Sum squared resid	5332.701	Schwarz criterion	5.546559
Log likelihood	-1074.519	Hannan-Quinn criter.	5.503985
F-statistic	152.1957	Durbin-Watson stat	1.365709
Prob(F-statistic)	0.000000		

Fixed Effect Model

Dependent Variable: SLIQ
Method: Panel Least Squares
Date: 02/08/18   Time: 21:47
Sample: 2006 2016
Periods included: 11
Cross-sections included: 41
Total panel (unbalanced) observations: 395

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DPO	0.000276	0.000255	1.082266	0.2799
DY	0.655924	0.057971	11.31476	0.0000
SIZE	-1.715614	0.948790	-1.808214	0.0714
IO	1.781736	0.206296	8.636790	0.0000
LEV	-0.021117	0.011877	-1.777947	0.0763
PROF	0.002157	0.002451	0.880313	0.3793
C	11.88607	6.897944	1.723132	0.0858

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.836428	Mean dependent var	3.855266

Adjusted R-squared	0.814807	S.D. dependent var		6.737168
S.E. of regression	2.899280	Akaike info criterion		5.078093
Sum squared resid	2925.227	Schwarz criterion		5.551530
Log likelihood	-955.9234	Hannan-Quinn criter.		5.265673
F-statistic	38.68491	Durbin-Watson stat		1.858547
Prob(F-statistic)	0.000000			

Random Effect Model

Dependent Variable: SLIQ
Method: Panel EGLS (Cross-section random effects)
Date: 02/08/18   Time: 21:48
Sample: 2006 2016
Periods included: 11
Cross-sections included: 41
Total panel (unbalanced) observations: 395
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DPO	5.28E-05	0.000253	0.208970	0.8346
DY	0.778816	0.051885	15.01037	0.0000
SIZE	-0.411929	0.364455	-1.130262	0.2591
IO	2.889084	0.156259	18.48908	0.0000
LEV	-0.023389	0.009874	-2.368680	0.0183
PROF	0.003632	0.002362	1.537758	0.1249
C	0.481914	2.593496	0.185816	0.8527

Effects Specification				
			S.D.	Rho
Cross-section random			1.458078	0.2019
Idiosyncratic random			2.899280	0.7981

Weighted Statistics				
R-squared	0.523986	Mean dependent var		2.061820
Adjusted R-squared	0.516625	S.D. dependent var		4.572900
S.E. of regression	3.184322	Sum squared resid		3934.283
F-statistic	71.18357	Durbin-Watson stat		1.588350
Prob(F-statistic)	0.000000			

Unweighted Statistics				
R-squared	0.674065	Mean dependent var		3.855266
Sum squared resid	5828.830	Durbin-Watson stat		1.072088

Chow Test

Redundant Fixed Effects Tests
Equation: Untitled
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	7.160138	(40,348)	0.0000
Cross-section Chi-square	237.191936	40	0.0000

Hausman Test

Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	86.401116	6	0.0000

Appendix 5:

Analyses of the Effect of Dividend Policy on Corporate Profitability

Appendix 5a: Analyses of the effect of dividend policy on Corporate Profitability for financial firms

Pooled OLS Model

Dependent Variable: PROF
Method: Panel Least Squares
Date: 02/08/18   Time: 21:56
Sample: 2006 2016
Periods included: 11
Cross-sections included: 19
Total panel (unbalanced) observations: 184

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DPO	-0.284817	2.171751	-0.131146	0.8958
DY	0.150593	0.590959	0.254829	0.7992
SIZE	14.13335	4.325587	3.267384	0.0013
GR	-0.005727	0.047600	-0.120313	0.9044
IO	4.495712	3.838489	1.171219	0.2431
LEV	-0.407506	0.162305	-2.510748	0.0129
C	-89.14410	26.21507	-3.400490	0.0008

R-squared	0.089391	Mean dependent var	4.144185
Adjusted R-squared	0.058523	S.D. dependent var	27.99467
S.E. of regression	27.16315	Akaike info criterion	9.478901
Sum squared resid	130597.1	Schwarz criterion	9.601208
Log likelihood	-865.0589	Hannan-Quinn criter.	9.528474
F-statistic	2.895903	Durbin-Watson stat	1.958028
Prob(F-statistic)	0.010208		

Fixed Effect Model

Dependent Variable: PROF
Method: Panel Least Squares
Date: 02/08/18   Time: 21:56
Sample: 2006 2016
Periods included: 11
Cross-sections included: 19
Total panel (unbalanced) observations: 184

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DPO	-0.429728	2.204235	-0.194956	0.8457
DY	-0.651288	0.648714	-1.003968	0.3169
SIZE	23.33030	11.70923	1.992470	0.0480
GR	0.018365	0.050225	0.365648	0.7151
IO	4.481429	3.986551	1.124137	0.2626
LEV	-0.487684	0.238758	-2.042591	0.0427
C	-156.7546	96.99180	-1.616163	0.1080

Effects Specification			
Cross-section fixed (dummy variables)			
R-squared	0.259931	Mean dependent var	4.144185
Adjusted R-squared	0.148223	S.D. dependent var	27.99467
S.E. of regression	25.83678	Akaike info criterion	9.467183
Sum squared resid	106138.7	Schwarz criterion	9.903995
Log likelihood	-845.9808	Hannan-Quinn criter.	9.644228
F-statistic	2.326871	Durbin-Watson stat	2.357758
Prob(F-statistic)	0.001040		

Random Effect Model

Dependent Variable: PROF
Method: Panel EGLS (Cross-section random effects)
Date: 02/08/18   Time: 21:56
Sample: 2006 2016
Periods included: 11
Cross-sections included: 19
Total panel (unbalanced) observations: 184
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DPO	-0.436189	2.131539	-0.204635	0.8381
DY	-0.227517	0.599362	-0.379598	0.7047
SIZE	15.97672	5.017266	3.184347	0.0017
GR	0.002452	0.046511	0.052710	0.9580
IO	4.227329	3.749473	1.127446	0.2611
LEV	-0.454935	0.183262	-2.482431	0.0140
C	-99.45573	31.86218	-3.121435	0.0021

Effects Specification			
		S.D.	Rho
Cross-section random		9.751572	0.1247
Idiosyncratic random		25.83678	0.8753

Weighted Statistics			
R-squared	0.067150	Mean dependent var	2.661338
Adjusted R-squared	0.035528	S.D. dependent var	26.14146
S.E. of regression	25.67522	Sum squared resid	116681.4
F-statistic	2.123508	Durbin-Watson stat	2.165318
Prob(F-statistic)	0.052822		

Unweighted Statistics			
R-squared	0.086883	Mean dependent var	4.144185
Sum squared resid	130956.8	Durbin-Watson stat	1.929281

Chow Test

Redundant Fixed Effects Tests
Equation: Untitled
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	2.035539	(18,159)	0.0107
Cross-section Chi-square	38.156171	18	0.0037

Hausman Test

Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	3.939448	6	0.6849

Appendix 5b: Analyses of the effect of dividend policy on Corporate Profitability for non-financial firms

Pooled OLS Model

Dependent Variable: PROF
Method: Panel Least Squares
Date: 02/08/18   Time: 21:53
Sample: 2006 2016
Periods included: 11
Cross-sections included: 41
Total panel (unbalanced) observations: 395

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DPO	0.003674	0.005706	0.643839	0.5201
DY	0.777591	1.007753	0.771610	0.4408
SIZE	3.076745	4.832020	0.636741	0.5247
GR	-0.000698	0.001443	-0.483525	0.6290
IO	11.93448	2.614684	4.564407	0.0000
LEV	-0.020091	0.172554	-0.116433	0.9074
C	-27.92111	33.63557	-0.830107	0.4070

R-squared	0.058745	Mean dependent var	15.64800
Adjusted R-squared	0.044190	S.D. dependent var	67.61174
S.E. of regression	66.10099	Akaike info criterion	11.23781
Sum squared resid	1695304.	Schwarz criterion	11.30832
Log likelihood	-2212.467	Hannan-Quinn criter.	11.26574
F-statistic	4.035953	Durbin-Watson stat	2.001734
Prob(F-statistic)	0.000616		

Fixed Effect Model

Dependent Variable: PROF
Method: Panel Least Squares
Date: 02/08/18   Time: 21:58
Sample: 2006 2016
Periods included: 11
Cross-sections included: 41
Total panel (unbalanced) observations: 395

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DPO	0.008450	0.005562	1.519244	0.1296
DY	-0.482411	1.271642	-0.379361	0.7047
SIZE	-25.43051	20.69951	-1.228556	0.2201
GR	-0.000925	0.001488	-0.621927	0.5344
IO	8.083262	4.620866	1.749296	0.0811
LEV	-0.606532	0.258683	-2.344694	0.0196
C	218.3565	150.3601	1.452223	0.1473

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.223689	Mean dependent var	15.64800
Adjusted R-squared	0.121073	S.D. dependent var	67.61174
S.E. of regression	63.38676	Akaike info criterion	11.24768
Sum squared resid	1398223.	Schwarz criterion	11.72112

Log likelihood	-2174.416	Hannan-Quinn criter.	11.43526
F-statistic	2.179867	Durbin-Watson stat	2.291475
Prob(F-statistic)	0.000044		

Random Effect Model

Dependent Variable: PROF
Method: Panel EGLS (Cross-section random effects)
Date: 02/08/18   Time: 21:58
Sample: 2006 2016
Periods included: 11
Cross-sections included: 41
Total panel (unbalanced) observations: 395
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DPO	0.003863	0.005475	0.705424	0.4810
DY	0.735794	0.976400	0.753578	0.4516
SIZE	3.158014	4.756262	0.663970	0.5071
GR	-0.000709	0.001388	-0.510777	0.6098
IO	11.90873	2.553888	4.662982	0.0000
LEV	-0.034136	0.168195	-0.202955	0.8393
C	-27.53210	33.13874	-0.830813	0.4066

Effects Specification			
		S.D.	Rho
Cross-section random		4.925957	0.0060
Idiosyncratic random		63.38676	0.9940

Weighted Statistics			
R-squared	0.056810	Mean dependent var	15.19016
Adjusted R-squared	0.042225	S.D. dependent var	67.27602
S.E. of regression	65.84467	Sum squared resid	1682182.
F-statistic	3.895014	Durbin-Watson stat	2.014521
Prob(F-statistic)	0.000863		

Unweighted Statistics			
R-squared	0.058724	Mean dependent var	15.64800
Sum squared resid	1695343.	Durbin-Watson stat	1.998882

Chow Test

Redundant Fixed Effects Tests
Equation: Untitled
Test cross-section fixed effects

Effel,cts Test	Statistic	d.f.	Prob.
Cross-section F	1.848498	(40,348)	0.0020
Cross-section Chi-square	76.100896	40	0.0005

Hausman Test

Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	36.535708	6	0.0000