CHAPTER ONE
INTRODUCTION

1.1 Background of Study

The 21st century has been characterized by rapid technological changes, fragmented markets and growing dependence and increased competition among firms. For firms to survive in such environment, major emphases are placed on sustainable and competitive strategies. Kotler and Armstrong (2008) believe that the sustainable competitive strategy of the firm in the business environment characterized by uncertainties in the market is an important management decision; hence the strategy should focus on minimizing risk and maximizing profit. In line with this assertion, Kotler (2008) opines that a firm can achieve this by means of diversification. Corporate strategy is crucial for any firm to succeed in a highly competitive and turbulent market environment. The gains from diversification in reducing volatility and subsequently investment risks have been widely accepted. Corporate diversification has long been regarded as a strategic tool for organizations to sustain growth and profitability which may be related or unrelated. (Hakrabati, 2007). Diversification strategy is an important component of the strategic management of a firm, and the relationship between a firm's diversification strategy and its economic performance is an issue of considerable interest to managers and academicians (Kotler & Armstrong, 2008).

Corporate diversification is one of the fundamental strategic alternatives available to organizations to sustain growth and search for higher profits. Li and Greenwood (2004) opined that companies whose products are threatened by environmental uncertainty or by declining phase of their life cycle curve will prefer to engage in diversification to overcome the risk arising from current industries. Furthermore, firms may engage in expanding its product line and activities to different sectors where environmental uncertainty is reduced and, profitability is higher, such that a company may confirm its survival which will make its cash flow more reliable.

Diversification has continued to be an important strategy for corporate growth and corporate managers including marketing managers and academicians. Firm diversification can be foreign, income, business subsidiary or product line diversification. However irrespective of the form of diversification a firm embarks upon, the motive remains the same. One of the key reasons for diversification is to reduce risk and to maximize profit (Strickland & Thompson, 2003). The risk facing factor can be grouped into two: internal risk and external risk. The external risks are risk outside the control of the firm, which include political, economic, social, technological and legal factors while internal risk includes credit risk, liquidity risk, reputational risk, business risk etc.

According to Hitt, Hoskisson, and Kim, (2006) foreign diversification is the expansion across borders of regions and countries into different regions and or markets. Foreign diversification is considered as a new way for value creation (Hitt et al., 2006). Firms

exploit the benefits of foreign diversification through foreign direct investment (Hymer, 1976), and this has been considered as a medium of transferring competitive advantages across borders to minimize costs (Grant, 1987). Market imperfections across different countries are minimized, and create the opportunity for firms to achieve economies of scale and scope (Kim, Hwang & Burgers, 1993; Buckley & Casson, 1976). However, various empirical studies like the studies of Kim et al. (1993); Hymer (1976); Kogut and Singh (1988) have suggested that foreign diversification permits firms to spread investment risks by reducing fluctuation in revenue, but it also comes with the problem of managerial constraints, increase coordination costs and transaction costs.

Hence, firms do not only enjoy the benefits of diversification, it also bears the costs associated with it which may include cultural barriers, entrant of new competitors, and complex environmental factors, like political or legal regulations become imminent. In the light of the forgoing, Hymer, (1976), opine that such firms will suffer the problem of liability of foreignness which significantly enhances transaction costs. Grant, (1987) argued that multi-regional diversifications increase managerial constraints as coordination costs will increase greatly. Chen and Yu (2011) observed that increased performance of firms due to business diversification occurs when the marginal benefits are greater than the marginal costs of diversification. Firms with enough managerial and financial capacity could easily diversify into other industries since diversification is perceived as investment behaviour. Therefore, performance is a possible determinant of diversification decision.

Kotler (2003) argues that business diversification does not guaranty improved profit, but an important strategic management concept for achieving long-term performance while reducing risk. Line-of-business diversification and the performance relation have not been given considerable attention in the Nigerian context, but prior studies of Berry-Stolzle, Liebenberg, Ruhland, and Sommer (2012); Elango, Ma and Pope (2008); Liebenberg and Sommer (2008); Pavic and Pervan (2010) have argued that corporate performance is significantly enhanced as a result of line-of-business diversification.

Corporate diversification and firm performance has attracted much attention from scholars and investors in the past few decades yet most empirical work on corporate diversification has been concentrated on few developed countries such as China, U.S., Germany and U.K. while studies in the context of developing nation such as Nigeria is scarce. While most empirical studies on corporate diversification and firm performance focus on one aspect of diversification or the other, eg the studies of Keith (2013), Wei-Hwa, Wei-Chun and Tsung (2010), and Chia-Wen and Heng – Yih (2008) focused on foreign diversification and firm performance; Somnath and Saptarshi (2017) and Raghuiam, Henri and Luigi (1999) focused on subsidiary diversification; but in similar studies, Nasiru, Ibrahim, Yahay and Aliyu (2011); Oladele (2012); and Chia-Wen and Heng – Yih (2008) examine the nexus between product diversification and performance. Qiming, Yiping, Cheng and Xiaoguang (2016) and Anil and Narender (1998) examine industrial diversification and firm performance. From the stand point of the various studies, no study has been seen to evaluate the nexus between foreign diversification and

all the other aspects of diversification as they affect firm performance within the Nigerian context. The increasingly changing business environment, which is characterized by fragmented markets, rapid technological changes and growing dependence on non-price competition, has forced many firms to be innovative in all areas of business activity.

1.2 Statement of the Problem

Corporate strategy of diversification either in product line, subsidiary, income or regional line is crucial for the firms to compete favourably and survive on the long run. Most empirical research found a positive relationship between diversification and corporate performance, but Ade (2012) submitted that most diversification strategies lead to negative or low performance of companies in Nigeria due to self-interest, inexperience, incompetence and opportunistic behavour of most managers. However, large firms are most likely to engage in diversification strategies compared to smaller firms (Zhou & Elder 2001; Becker, DeFond, Jiambalvo & Subramanyam 1998).

Most of studies on this topic like that of Li and Greenwood (2004); Shyu and Chen (2009) et cetera were carried out in developed countries such as United States of America (USA), Germany, UK, Canada and China. Studies that have explored the subject of diversification and financial performance in Nigeria are seen to be very limited, and have not captured variables like; foreign diversification, business subsidiary diversification, product diversification and income diversification. Hence, this study is motivated to carry

out investigation on the subject matter among listed non-financial companies in Nigeria to confirm the results obtained from foreign counterpart.

The above constitutes the significance of this study on evaluating the effect of corporate diversification on performance among quoted non-financial firms in Nigeria employing current data and a more robust regression technique.

1.3 Objectives of the Study

The main objective of this study is to evaluate the effect of corporate diversification on financial performance of non-financial firms quoted on Nigeria Stock Exchange. The specific objectives will include:

1. To evaluate the effect of foreign diversification on financial performance of non-financial firms quoted on Nigeria Stock Exchange.
2. To ascertain the effect of business subsidiary diversification on financial performance of non-financial firms quoted on Nigeria Stock Exchange.
3. To determine the effects of product diversification on financial performance of non-financial firms quoted on Nigeria Stock Exchange.
4. To examine the effect of income diversification on financial performance of non-financial firms quoted on Nigeria Stock Exchange.
5. To evaluate the effect of firm size on financial performance of non-financial firms quoted on Nigeria Stock Exchange.

1.4 Research Questions

The following research questions will guide this study:

1. To what extent does foreign diversification affect the financial performance of quoted firms on Nigeria Stock Exchange?
2. To what extent does business subsidiary diversification affect the financial performance of quoted firms on Nigeria Stock Exchange?
3. To what extent does product diversification affect the financial performance of quoted firms on Nigeria Stock Exchange?
4. To what extent does income diversification affect the financial performance of quoted firms on Nigeria Stock Exchange?
5. To what extent does firm size affect the financial performance of quoted firms on Nigeria Stock Exchange?

1.5 Research Hypotheses

In this study, the following null hypotheses were tested:

$H0^1$. Foreign diversification has no significant effect on the financial performance of quoted firms on Nigeria Stock Exchange.

$H0^2$. Business subsidiary diversification has no significant effect on the financial performance of quoted firms on Nigeria Stock Exchange.

$H0^3$. Product diversification has no significant effect on the financial performance of quoted firms on Nigeria Stock Exchange.

$H0^4$. Income diversification has no significant effect on the financial performance of quoted firms on Nigeria Stock Exchange.

$H0^5$. Firm size has no significant effect on the financial performance of quoted firms on Nigeria Stock Exchange.

1.6 Significance of the Study.

Corporate diversification has long been regarded as a strategic tool for sustaining growth and profitability (Hakrabati, 2007). It has remained one of the fundamental strategic alternatives available for organizations to sustain growth in highly competitive business environment by taking advantage of scale economics, new market and synergy. The findings of this study will be of importance to managers, investors, policy makers and researchers.

For the managers, diversification promises three sets of benefits which, separately and in combination, provide firms with a competitive advantage: synergies arising from economies of scope, premiums from mutual forbearance enabled by multi-market competition, and efficiencies derived from market structuration (Li & Greenwood, 2004). The knowledge of the cost and benefit of diversification in relation to firm performance will help managers make policies that will ultimately minimize cost and maximize the benefit of diversification.

Corporate investors will benefit from this study as they aim for wealth maximization. Diversification is driven by the desire to reduce or spreading risk and maximizing profit. Therefore, the relationship that exists between diversification and firm performance will be of great benefit to investor. Furthermore, academic researchers will benefit from this empirical study as it seeks to evaluate all aspect of diversification, the resulting literature from this study will be of great importance to those who wish to undertake further research in related aspect of diversification and its relationship with firm performance.

In considering the policy maker**,** diversification can be a strategy for reduction of tax liability, as firms carry out their operation in a region with low tax rate. Regional, business subsidiary and industrial diversification can help reduce tax liability using transfer pricing. This study will be useful to policy maker as it shared light on the tax reduction strategy of diversification so that a tax policy framework can be develop to capture the tax advantage of diversification.

1.7 Scope of Study.

This study intends to evaluate the efficacy of corporate diversification with a view to establishing its effects on financial performance of firms quoted in Nigeria. The variables employed in this research work are; return on asset, foreign diversification, business subsidiary, product diversification, income diversification and firm size. The study covered period of eleven years from 2007-2017 due to data availability and consistency. Eleven years is also adjudged long enough to determine the effect of independent variables on the dependent variable.

1.8 Limitations of the study

The study intended to cover all the non-financial firms quoted on the Nigerian Stock Exchange, but experienced difficulty in getting all the required data hence, the researchers limit the study to those non-financial firms that had been diversified in line with the objectives of the research work. The researchers therefore are limited to the non-financial firms diversified in line with the variables of this research work, extracting the data from their website and annual financial reports for the study.

CHAPTER TWO

REVIEW OF RELATED LITERATURES

2.1 Conceptual Review

2.1.1 Diversification

The concept of diversification is yet to be clearly defined and there is no consensus on the precise definition among researchers. Apart from definitions by scholars such as (Turner, 2005; Thompson & Strickland, 2006; Aggarwal & Samwick, 2003), Johnson Scholes and Whittintton (2006) says it's a collection of businesses under one corporate umbrella. A review of the literature reveals a great deal of variation in the way the extent of diversification is conceptualized, defined, and measured. Ramanujam and Varadarajam (1989) identify at least sixty different taxonomies which have been developed to classify business organizations according to extent of diversification. Diversification strategy can be defined as "Expanding or entering in new markets which are different from the firm's existing product lines or markets" (Johnson & Scholes, 2002).

Corporate diversification refers to a firm's strategy of entering and competing in new product markets. Diversification allows firms to maximize value by enhancing the scope of markets and industries in which they compete and supply product offerings to newer customers (Purkayastha, Manolova, & Edelman, 2012). In the Rumelt framework, the extent of diversification is defined according to a fourfold taxonomy based on the percentage of revenue derived from various products. These include single-product firms, dominant-product firms, related product firms and unrelated product firms. The two types

of diversification strategies that are of interest to us in this study are related – product diversification and unrelated -product diversification.

According to Rumelt (1977), related – product firms derive less than 70 percent of their revenues from a single product domain and the remainder of their revenues is from a related product domain. These firms are characterized by medium heterogeneity of customers, same product similarity, medium unit interdependence, both internal and external acquisitive diversification modes and a fast rate of diversification growth. While, unrelated product firms receive less than 70 percent of their revenues from a single-product domain and the remainder of their revenues from an unrelated – product domain (Rumelt, 1977) When a firm earns more than 30 percent of its sales revenue outside a dominant business, and when its businesses are related to each other in some manner, the company is classified as a related diversified firm. However, lending support to all the various definitions, for this research study, diversification is defined in a broad sense as expanding business fields either to new markets, new products or both while retaining strong core businesses.

2.1.2 Firm Performance

The success of an organization has an important role in our daily lives hence, a successful organization represent a key ingredient for developing nations such as Nigeria. Continuous performance is the focus of any organization because only through mirror of performance organizations are seen to grow and progress. Thus, organizational

performance is one of the most important variables in management research and arguably the most important indicator of organizational performance (Wahla, ShahSyed & Hussai, 2012)

Lebans and Euske (2006) provide a set of definitions to illustrate the concept of organizational performance and described performance as a set of financial and non-financial indicators which offer information on the degree of achievement of objectives and results (Leban and Euske 2006). Performance is dynamic, requiring judgment and interpretation. Performance may be illustrated by using causal model that describes how current actions may affect future results. Performance may be understood differently depending on the persons involved in the assessment. For instance, performance can be understood differently from a person within the organization compared to a person from outside. Hansen and Mowen (2005), states that firm performance is very essential to management as it is an outcome which has been achieved by an individual or a group of individuals in an organization related to its authority and responsibility in achieving the goal legally. Performance is the function of the ability of an organization to gain and manage the resources in several different ways to develop competitive advantage. However, despite the evolution of various available benchmarks and performance measurement, the answer to what is performance may still be hard to pin down.

2.1.3 Financial Performance

According to Metcalf and Titard (1976), Financial performance refers to the act of performing financial activity. In broader sense, financial performance refers to the degree to which financial objectives is being or has been accomplished. It is the process of measuring the results of a firm's policies and operations in monetary terms. It is used to measure firm's overall financial health over a given period of time and can also be used to compare similar firms across the same industry or to compare industries or sectors in aggregation. Financial performance is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. This term is also used as a general measure of a firm's overall financial health over a given period of time, and can be used to compare similar firms across the same industry or to compare industries or sectors in aggregation.

Financial Performance is mmeasuring the results of a firm's policies and operations in monetary terms. These results are reflected in the firm's return on investment, return on assets, value added, etc. One way to analyze financial performance is to calculate key financial ratios over the past years using them to compare with other firms. Ratios can be compared year over year to measure progress and performance. Financial ratios are a comparison of two or more elements of financial data. They are expressed as percentages or as ratios. The Financial performance indices of Return on Asset (ROA) used in this research work is a measure of the return on investment made in the business and includes a return to capital appreciation. Other financial performance indices like Return on

Equity (ROE), Earning Per Share (EPS) and Tobin q were also explained by the researchers in this work.

The various users of accounting information/ stakeholders as observed by Metcalf and Titard (1976) seek answers to the following important questions:

a. What is the financial position of the firm at a given point of time?

b. How is the Financial Performance of the firm over a given period of time?

These questions can be answered with the help of financial analysis of a firm. Financial analysis involves the use of financial statements. A financial statement is an organized collection of data according to logical and consistent accounting procedures. Its purpose is to convey an understanding of some financial aspects of a business firm. (Metcalf & Titard, 1976)

2.1.4 Diversification- Performance Relationship

The effect of corporate diversification on firm performance has been widely studied (Dimitrov & Tice, 2006; Yan et al., 2010; Hoechle et al., 2009; Hoskisson & Peng, 2005; Wan, 2011; Wright et al., 2005). While this topic is rich in studies many researchers concurred on the lack of consensus on the precise nature of the relationship between diversification and firm performance. Some studies have shown that diversification improves profitability over time citing a positive relationship (Yan et al., 2010; Hoskisson & Peng, 2005; Wan, 2011), whereas others have demonstrated negative

relationship between both variables of interest. (Ozbas & Scharsfstein, 2010; Maksmovic & Phillip, 2007)

Furthermore, other scholars have shown that diversification and performance linkage depends on business cycle. Santalo and Becerra (2004) explain conceptually and provide empirical evidence that no relationship exists (positive, negative or even quadratic) between diversification and firm performance. Santalo and Becerra (2008), concurring with Stowe and Xing (2006), broadly conclude in the following manner: (a) the empirical evidence is inconclusive (b) models perspectives and results differ based on the disciplinary perspective chosen by the researcher and (c) the relationship between diversification and performance is complex and is affected by intervening and contingent variables such as related versus unrelated diversification, and mode of diversification.

In the words of Daud, Salamudin and Ahmad (2009), studies in the related area have tended to provide inconclusive results due to inconsistent data, different time frames, different performance measures and moderate variables. Mackey (2006) argues that the contradictory results are related to; different timeframes, various measures of profitability and different measures of diversification while Andreou and Louca (2010) assert that the confusion is partly methodological and partly theoretical.

There is a school of thought among academic researchers, consultants, and investment bankers that posit that diversified firms destroy value (Ozbas & Scharfstein, 2010;

Hoechle et al., 2009). The evidence that supports this conclusion comes from a variety of sources. Diversified firms tend to have a lower Tobin's Q; they trade at a discount of up to 15%, when compared to the value of a portfolio of stand-alone firms; they face an increased likelihood of being broken up through reorganization that varies directly with the size of the discount; and the stock market tends to react favourably to increases in refocus (Collins & Montgomery, 2008; Masulis et al., 2007; Doukas & Kan 2006; Stulz et al., 2007). In line with this school of thought Breadley et al argue that companies should stick to their core competencies and let shareholders diversify on their own as diversification is costly rather than beneficial for the corporation. The author states that poor multidivisional performance destroys value.

2.1.5 Foreign diversification Performance Relationship

Foreign diversification is often referred to as geographic diversification, geographic scope, internationalization, or global diversification. These terms refer to 'a process in which firms gradually increase their international involvement' 'a firm's expansion beyond its domestic market into other regions or countries' (Ghoshal, 1987), or 'the extent to which a firm depends on foreign markets for customers, factors of production, and the capacity to create value' (Lu & Beamish, 2004). Conceptually, the field recognizes that a firm's foreign diversification strategy can be multifaceted and, hence, foreign diversification is more than just a firm's multinational presence. Foreign diversification is a strategy through which a firm expands the sales of its products or

services across the borders of global regions and countries into different geographic locations or markets (Hitt, Ireland & Hoskisson, 2007).

The extant literature suggests that foreign diversification relationship is non-linear in nature and has three stages (S-shaped) (Contractor, 2007). In addition, Ruigrok, Amann, and Wagner (2007) argue that foreign diversification relationship is context dependent and therefore researchers in this field need to examine the role of moderating variables to better understand the foreign diversification relationship. Foreign diversification has both benefits and costs associated with it. Firms experience benefits like economies of scale and scope, increase in market power over buyers and suppliers, and organizational learning through exploration (Wiersema and Bowen, 2011). These benefits increase with the increasing scale of foreign diversification and firms experience higher performance with increasing scale of international operations.

On the other hand, there are costs related to liabilities of foreignness such as costs associated with learning about foreign markets and seeking legitimacy in different institutional environments (Kostova & Zaheer, 1999). In particular, emerging-market firms appear to incur a greater proportion of these costs as these firms are often plagued by issues relating to inferior product perception (Aulakh, Kotabe, & Teegen, 2000). However, firms can overcome some of these costs with time as they gain learning and experience (Barkema and Vermeulen, 1998) in foreign markets. In addition, there are

costs associated with staffing and instituting an internal management system and an external business network (Singla & George, 2013).

2.1.6 Business Subsidiary Diversification Firm Performance Relationship

Another stream of literature emphasizes the strategic role of the business subsidiary as an influence of performance (Anderson et al, 2002). The greater the strategic interdependency between subsidiary and parent, the more likely the subsidiary will be to receive support and resources from the parent to maintain high performance. Subsidiaries that play key strategic roles for their parents, e.g. as having regional, product or functional mandates, will have a direct claim to resources within the multinational company, whereas subsidiaries that are auxiliary portfolio investments have fewer opportunities of gaining additional resources from headquaters should a crises erupt (Porter, 1986; Birkinshaw et al, 2005; Subranmaniam & Watson 2006). Also the strategic intent/ investment motive behind establishing the subsidiary may influence performance. Some subsidiaries may have a strategic intent of accessing local markets, while others may have as their strategic intent to supply export markets and/or other subsidiaries with components (Dunning & Lundan, 2008). As the latter type of investment impacts the global operation of the multinational company directly it can be expected to have higher performance than e.g. market seeking investments.

2.1.7 Product Diversification Performance Relationship

Research on product diversification–performance linkage has recently gone beyond an examination of product diversity at the corporate level, to a more micro level of study, such as within-industry and within-business (Li & Greenwood, 2004; Stern & Henderson, 2004). A need to better understand the value-creation mechanisms of product diversification strategy prompted this refocus. In contrast, research on the product line diversification strategy of multinational firms has tended to remain at the corporate level, focusing only on its impact on corporate performance without considering the possible variations of such a strategy in a firm's individual host-country markets. Although multinational firms enjoy a competitive advantage in integrating a global value chain, national environments and institutions remain as powerful constraints on a concerted global strategy, and exert strong influences on the survival of foreign subsidiaries (Kostova & Zaheer, 1999).

2.1.8 Income Diversification Firm Performance Relationship

Empirical literature on financial firms has produced mixed evidence as to whether and how increased diversification affects performance. In an early survey, Saunders and Walters (1994) review 18 studies that examine whether non-bank activities reduce bank holding company (BHC) risk and indicate no consensus: while 9 answer are yes, 6 answers are no, and 3 are mixed. These, and more recent studies, approach the risk question from a variety of perspectives: creation of synthetic or counterfactual mergers of companies, analysis of actual operating results, and analysis of market reactions to

diversification. The most relevant comparisons examine the actual performance of firms with varying degrees of concentration and diversification. The general conclusion is that firms' expansion into less traditional operating activities is associated with increased risk and lower returns.

2.1.9 Measuring Diversification

Following Rumelt (1974), in this study we define a single specialized business to mean a company that derives more than 95% of its revenues from a single business while a related diversified business is defined as a company that derives less than 70% of its revenues from a dominant business with all the businesses in the portfolio sharing product, technological and distribution linkages. An unrelated diversified business is defined here as a company that derives less than 70% of its revenue from its dominant business with the businesses having no common link between them. Four types of firms, (i) single, specialized business, (ii) related diversified (iii) unrelated diversified, and (iv) mixed strategies were identified using cluster analysis based upon the emphasis that a company placed upon different types of diversification. Related diversification measures the extent of diversification arising from operations in several industries of the same industry group. Unrelated diversification measures the extent of diversification arising from extending operations into different industries. The sum of related diversification and unrelated diversification is a measure of total diversification. The concentric index measures the degree of distance or relatedness between industries. The weight for a company is given based on industry sales shares. The weight is equal to zero if a

company's operations are in four different SIC code industries or more, the weight is equal to one if the firm's operations are in three different SIC code industries, and equal to two if they are in two different SIC code industries.

The different types of diversification were chosen based on a review of literature and previous conceptualizations (Rumelt, 1974). Two diversification indexes used in previous research were employed in this study to capture different aspects of diversification: the Entropy index (Jacquemin and Berry, 1979), and the concentric index (Caves, et al. 1980; Montgomery and Wernerfelt, 1988). The Entropy index distinguishes between related and unrelated diversification. The three separate sales – weighted entropy indexes (total diversification, related diversification and unrelated diversification) were obtained directly from the companies. The total diversification index is a weighted average of the sales shares of a company in different industries.

2.1.9.1 Measuring Firm Performance

Measuring performance is very important because it builds on the results and enables management make different decisions in economic units. According to (Benjalux, 2006) performance measures are the life blood of economic units, since without them no decisions can be made. Performance measures are used as the indicators to evaluate the success of economic units in achieving stated strategies, objectives and critical success factors (Katja, 2009).

Performance measurement is therefore the process whereby an organization establishes the parameters within which programmes, investments, outputs and acquisitions are reaching the desired results (Hunger & Wheelan, 1997).

The main objective of performance measuring is to determine the operating characteristics, financial characteristics, efficiency and performance of economic unit management, as reflected in the financial records and reports (Amalendu, 2010). Akinsulire, (2008) and Pandy (2003) points out that no performance review is beyond dispute, for instance, reported profit is a matter of opinion. If income is to be measured in terms of the increase or decrease in the wealth of an enterprise, obviously some definitions of that stock of wealth is required.

2.1.9.2 Performance Ratios

These ratios are used to assess the ability of a business to earn profit in comparison with all its expenses during a specific time period. Generally, accounting profit is the difference between revenue and cost (Ross, Westerfield & Jaffe 2005). If these ratios are higher than competitors, industry averages or previous years' ratio then it can be considered that firm is performing profitably. The following profitability ratios are employed in this research.

2.1.9.3 Return on Assets (ROA)

Emekekwue (2008) sees return on assets (ROA) as a ratio which seeks to measure the amount of profit generated from the entire assets of the firm. It is expressed as Profit

before tax divided by Total Assets. Ekwe and Duru (2012) opines that return on assets (ROA) was used as dependent variables, because it is an indicator of managerial efficacy. It is the quotient of dividing profit after tax by total assets. Lazaridis and Trynidis (2006), Falope and Ajilore (2009), Singh and Pandy (2008) and Karaduman et al (2011) agrees that the formula for return on Assets (ROA) is expressed as Profit before tax over Total Assets. This profitability ratio is employed for this work.

2.1.9.4 Return on Equity (ROE)

Return on equity represents profitability of shareholders of the firm after meeting all expenses and taxes (Horne & Wachowicz 2005). ROE is net earnings per dollar/ naira equity capital. Higher ROE means better managerial performance. But higher ROE can be due to financial leverage. Higher leveraged firms have higher ROE which increases risk too (Ross, Westerfield & Jaffe 2005). Usually ROE is higher for high growth companies. ROE = Net Profit / Shareholders' Equity.

2.1.9.5 Earnings per Share (EPS)

Earnings per share (EPS) relates to the measures of managerial efficiency as well as firm performance. The debate on whether EPS has any predictive power on stock prices is not very clear in financial literature. Some analysts believe that, EPS has predictive power on stock prices. This argument holds the view that, EPS has influence on stock prices. While the other argument is that, only positive information regarding EPS causes the demand for a stock which results to increase in stock prices. When viewed over long periods the

share prices are directly related to EPS of the firm. Over short periods, especially for younger or small firms, the relationship between stock prices and EPS is quite unmatched (NSEC, 2006).

2.1.9.6 Tobin Q

Another type of measurement is the market-based measurement Tobin Q which is categorized as long-term. The market-based measurement is characterized by its forward-looking aspect and its reflection of the expectations of the shareholders concerning the firm's future performance, which has its basis on previous or current performance (Wahla, ShahSyed & Hussain, 2012; Shan & McIver Ron, 2011; & Ganguli & Agrawal, 2009). Tobin Q refers to a traditional measure of expected long-run firm performance (Bozec, Dia & Bozec, 2010). The employment of market value of equity may represent the firm's future growth opportunities which could stem from factors exogenous to managerial decisions and this is indicated by the companies' level (Shan & McIver, 2011; Demsetz & Villalonga, 2001).

In addition, a high Tobin Q ratio shows success in a way that the firm has leveraged its investment to develop the company that is valued more in terms of its market-value compared to its book-value (Kapopoulos & Lazaretou, 2007). Moreover, market-based expectations for firm performance may result in management incentive to modify their holdings on the basis of their expectations of the future performance of the firm (Sánchez-Ballesta & García-Meca, 2007). As a result, when the company's market-based

performance is higher than the results of Tobin Q, this indicates that the company has succeeded in achieving its planned high performance (Nuryanah & Islam, 2011) but if it is less than Tobin's Q, then the company needs to revisit its plans to enhance its short-term performance. The negative performance leads to investor's loss (local and foreign) and hence, it is important for the company to update its objectives from time to time if it is desirous of competing in the market place.

2.2 Theoretical Framework

Agency Theory of Corporate Diversification

Contemporary applications of agency theory were advanced with the publication of "Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure" (1976), published in the *Journal of Financial Economics* by financial economist Michael C. Jensen and management theorist William H. Meckling. Building on earlier work by the American economists Ronald Coase, Armen Alchian, and Harold Demsetz, Jensen and Meckling developed an economic model specifically designed to capture the essence of the principal-agent relationship.

Consistent with the legal understanding of agency, Jensen and Meckling (1976) described the agency relationship as a contract (explicit or implied) in which one person, the principal, hires a second person, the agent, to perform some action. In such cases the principal formally delegates decision-making authority to the chosen agent. Jensen and Meckling (1976) began by assuming that each party to the contract consistently chooses

those actions that are most likely to maximize his own expected utility (in other words, both agent and principal always act so as to promote their own self-interest). Although an agent's motivations may include the desire to work hard to achieve the principal's goals, he may also be motivated by a desire to maintain the prestige or perquisites associated with the job, such as well-appointed offices and the use of corporate jets (all of which can be viewed as an economic loss from the principal's perspective). Although the assumption that both parties seek to promote their own self-interest is controversial among economists, a fact that Jensen and Meckling (1976) acknowledge it remains the central tenet of agency theory.

Proponents argue that the separation of ownership (embodied within the "principals") and management (embodied within "agents") can result in the expropriation of firm value (agency costs) by said agents (Berle & Means, 1932; Morck, Shleifer, & Vishny, 1988). Kipchoge, (2015) in his work adopted the theory on the premise that managers (agents) have better access to companys' accounting information can make credible and reliable communication to the market to optimize the value of the firm. Through financial reporting they communicate to the users of financial reports information that is useful in making choices among alternative uses of scarce resources.

Corporate diversification can work to the benefit of managers (agents) at the expense of shareholders (principal) in a number of ways. Managerial compensation, for example, increases with the firm's size and strategic scope (i.e., higher levels of diversification),

though such higher diversification levels may not necessarily result in improved profitability (Murphy, 1985). Furthermore, the risk of total firm failure is reduced in a diversified firm, and thus managerial employment risk is subsequently reduced/ shared. Scope decisions made under circumstances such as these impose agency costs on the firm, in that diversification activities driven by such motives serve managerial financial self-interests (higher compensation and job security), while providing no financial benefit to shareholders (Amihud & Lev, 1981). Then there is the concept of "managerial entrenchment" (Shleifer & Vishny, 1989, p. 123). Managers may specifically direct diversification activities into businesses that increase the firm's dependence on said managers' particular skills, thus increasing the firm's dependence on them as specific individuals. Personal position, again, is enhanced at the expense of shareholders.

A final example is in the agency cost of free cash flows (Jensen, 1986). Cash flow in excess of the amount sufficient to fund all positive net present value opportunities presents a temptation to managers. Arguably, that excess cash flow should be returned to shareholders, to do with as they see fit. Such a course of action would, however, represent a dilution of managerial power by reducing the amount of resources under managerial control. Diversification into a line of business with a negative net present value, while detrimental to shareholders, presents managers with a means through which to retain control over said resources.

The essence of the agency theory argument is that there are many ways in which managers can benefit from a strategy of diversification (even if shareholders do not). Managerial opportunism and the existence of free cash flows are thus seen as significant motivating factors underlying decisions to pursue corporate diversification. Appropriate corporate governance structures, through which managers are effectively monitored, as well as incentivized compensation schemes, through which managers' interests are aligned with those of shareholders, can reduce such agency costs.

The external capital market, with the threat of hostile takeovers of poorly performing firms, can provide a further deterrent to value-destroying diversification strategies. The takeover constraint, the risk that managers face of the company being acquired, can limit the extent that managers will pursue value-destroying strategies. Evidence suggests that such market pressures have led to refocusing strategies through which such conflicts of interest have been mitigated and performance improved (Jensen, 1986, 1989).

This study is anchored on the agency theory due to its core relevance to the subject matter of risk diversification and has been employed by several researchers like Kipckoge (2015). Agency theory provides a different perspective on strategic scope decisions, proposing that managerial decisions regarding the scope of the firm may be less than optimal due to conflicts of interest between the agents (managers) and the principals (shareholders). Agency theory addresses problems that arise due to differences between the goals or desires between the principal and agent. This situation may occur because the

principal is not aware of the actions of the agent or is prohibited by resources from acquiring the information. For example, company executives may have a desire to expand a business or diversify the business into another line of business without the knowledge of the shareholders/owners which may be for prospective growth and higher earnings in the future.

Resource-Based Theory of Corporate Diversification

The resource-based view of the firm argues that corporate diversification derives from the existence of underutilized resources (those with excess capacity) with value-creating potential in other lines of business (economies of scope), and the concomitant desire of managers to exploit that value-creating potential (Penrose, 1959). In other words, firms have strategic reasons to diversify which go beyond simple efficiency-based justifications.

As the name suggests, the resource-based view of diversification focuses on resource attributes that require a diversification strategy in order to realize the value-creating potential of said resources. First and foremost, among these resource attributes is the "indivisibility" of the resources in question. As Teece (1980, 1982) points out, this indivisibility leads to a "market failure," in which the "excess capacity" of the underutilized resources cannot simply be sold off or rented out to another user. The realization of any value-creating potential contained within the underutilized portion of the resource base requires the active participation of the top management team of a firm

in possession of the entirety of the resource base. The realization of that value-creating potential in another line of business thus necessitates a strategy of corporate diversification. Teece (1980), for example, proposed "an efficiency rationale of corporate diversification"; specifically, the "internalization of the (indivisible) supply of knowhow and other inputs common to two or more production processes." Proponents of this view argue that a diversified firm is able to capture managerial economies of scale, whereby the cost structure of the enterprise is reduced by spreading the fixed cost of managerial human capital (an indivisible resource) over multiple production processes. Beyond the indivisibility of underutilized assets, however, are other resource attributes that can help explain both the extent and nature of diversification that a firm undertakes.

Fungibility is defined as the degree to which value-creating potential declines further away from the original context of which a resource or capability is deployed (Levinthal & Wu, 2010; Montgomery & Wernerfelt, 1988). Low-fungibility resources and capabilities are implicitly defined as those with no closely related business applications, and which consequently have lower value-creating potential than high-fungibility resources and capabilities. Conversely, high-fungibility resources have both a greater number of closely related business applications and a relatively lower rate of decline in value-generating potential, as they are deployed away from their original context. The fungibility of the resource portfolio thus influences the nature (related or unrelated) of diversification engaged in by the firm.

Scalability, then, captures the degree to which resources and capabilities are available for use in additional business contexts (Levinthal & Wu, 2010; Mahoney & Pandian, 1992; Penrose, 1959). A resource or capability with unlimited scalability (i.e., scale-free) can be utilized in additional business activities without detracting from its use in current applications. A resource or capability with limited scalability (i.e., non-scale-free), on the other hand, when applied to an additional context, would require a reduction of its use in current applications. A trade-off is thus implied in the utilization of resources and capabilities with limited scalability, and consequently, it influences the amount or extent of diversification in which the firm engages.

Thus, according to the resource-based view, the existence of economies of scope through which a firm can utilize resources and capabilities in multiple businesses, as well as the desire of managers to profit from those economies of scope, provides the motivation for the firm to expand its strategic scope by diversifying into related businesses. The resource-based view also suggests that when economies of scope (or the lack thereof)) no longer provide an economic benefit to the firm (or if there are negative synergies between business units within the firm's portfolio), there should be a corresponding reduction in the firm's diversification.

Market Power Theory of Corporate Diversification

According to this perspective, large diversified firms have at their disposal the means by which to negatively impact smaller, more focused rivals in the various industries in which

they compete (Caves, 1981; McCutcheon, 1991; Montgomery, 1985; Palich, Cardinal, & Miller, 2000; Scherer, 1980; Shubik, 1959; Sobel, 1984). Predatory pricing would be such an example. A diversified firm could subsidize artificially low prices in one product market in which it faced competition from many rivals with the profits from another in which competition was weak. Once rivals were driven from the more competitive market, the diversified firm could increase market share, increase prices, and enjoy subsequently greater profit margins, particularly if barriers to entry were present (Caves, 1981; Berger & Ofek, 1995; Bolton & Scharfstein, 1990; Saloner, 1987; Scherer, 1980).

Defensive Theory of Corporate Diversification

In addition, there is the theory of what has been termed "defensive diversification," enunciated by Bass, Cattin, and Wittink (1977). This perspective hypothesizes that firms in industries that are declining or are growing very slowly (e.g., mature industries) engage in corporate diversification in order to pursue growth opportunities in other markets.

With regard specifically to research on the benefit of refocusing strategies, the finance literature has advanced the "core focus hypothesis". Managerial capabilities may be well-suited to the management of the core business, but not to the management of non-core businesses. Removal of non-core businesses allows managers to focus attention on the core operations that they are better suited to administer (Daley, Mehrotra, & Sivakumar, 1997).

2.3 Empirical Framework

Berger, Cummins, Weiss and Zi (2000) provide evidence on the validity of the conglomeration hypothesis versus strategic focus hypothesis for financial institutions using data on U.S. insurance companies. They use profit scope economies, which measure the relative efficiency of joint versus specialized production, to distinguish between the conglomeration and strategic focus hypotheses. Their results suggest that the conglomeration hypothesis dominates for some types of financial services providers and the strategic focus hypothesis dominates for other types.

Meador, Ryan and Schellhor (2000) focus on the relationship between a firm's output choice and measures of X-efficiency. Using data for the life insurance industry for the period 1990–1995 they find that diversification across multiple insurance and investment product lines resulted in greater X-efficiency than a more focused production strategy.

DeLong (2001) uses a similar approach to examine the diversification question more directly. Bank mergers are decomposed into those that either diversify or focus along either geographic or activity dimensions and the results show the largest gains for those mergers that increase focus both in terms of geographic location and activity. In particular, the primary conclusion is that "diversifying mergers do not create value. Again, this is not a direct test of the market's reaction to increases in nontraditional activities, but it does suggest that diversification gains are not expected for typical bank expansions via mergers

DeYoung and Roland (2001) examines the link between bank profitability, volatility, and different revenue shares for 472 large commercial banks from 1988 to 1995. They conclude that increased fee-based activities (revenue from all sources except loans, investment, deposit, and trading activities) increases the volatility of bank revenue and bank earnings. Taken together, there is little evidence of large diversification benefits from these papers.

Mark (2001) analyses the association between diversification and firm performance in a sample of up to 1449 large Australian firms (1994 to 1997). Firm performance is measured by profitability and, for quoted firms, market value. Results from the full sample show that more focused firms have higher profitability. This result controls for firm specific effects and other determinants of profitability. However, this association is not found in sub-sample regressions for listed firms. This is true both when either profitability or market value are used as a performance measure. The results may indicate that listed firms may be under closer scrutiny and competitive pressures that ensure, on average, that these firms are at their optimal degree of diversification.

Jensen, Johnson and Mercer (2002), opined that the long run diversification benefits of commodity futures is a result of the infrequent outburst in the commodity market and these benefits are not conclusive in a bearish commodity environment.

Choi and Cowing (2002) analyzed the relationships relating corporate diversification, concentration and performance for a group of 25 of the largest business groups (Korean chaebols) during the period of 1985–1995. In order to measure the impact of member firm concentration within the group, the authors used a Herfindahl-Hirschman index (HHI) of group concentration (HHFS). As a measure of chaebols diversification across industries, two variables were used: an HHI based on the chaebol asset shares for each industry within which the chaebol operates (HHDV) and the number of member firms in the group. Performance was measured as annual after-tax chaebol profit rate on total assets. The authors reported regression results using various model specifications. However regardless of model specifications chaebol concentration (HHFS) coefficient was always negative and generally significant at the 10 percent level, while HHDV was insignificant signaling that operating in a few versus many industries, did not appear to affect group profits.

Cummins and Nini (2002) investigate the use of capital by insurers to provide evidence on whether the capital increase represents a legitimate response to changing market conditions or a true inefficiency that leads to performance penalties for insurers. Their empirical analysis includes a regression of performance on capitalization and several controls, including line-of-business diversification. They find an inverse relation between diversification and Return on equity.

Doukas, and Lang (2003) revealed that when the firms were engaged in core-related foreign direct investments in geographical diversification they provide better performance and increase the shareholder value while others are found to be related with both short term and long term losses. They also found that foreign direct investment into unrelated business is linked with loss in shareholders' value while foreign direct investment into related business provides increase in value of shareholders. Outside core business international diversification is less harmful for multi-segment than single segment firms. They indicated that both focused in specialized business and diversified firms gain from core-related rather than non-core-related foreign direct investment, the performance is higher for diversified firms.

Li and Greenwood (2004) examine the effect of diversification upon intra-industry performance in the Canadian general insurance industry. Their test of a theoretical model indicates that mutual forbearance provides advantage under specified conditions, that market structuration also provides advantages, but that diversification per se does not.

The Study of Tongli et al., (2005) show that high levels of diversification are detrimental to profitability and on average destroy shareholder value for diversifiers pointing to the fact that refocusing generates positive shareholder returns

Doukas and Kan (2006) pointed out that segments acquired by diversifying firms in most cases already traded at a discount before acquisition and hence their acquisition will

improve performance, thus refuting the post-acquisition negative relationship between diversification and performance in terms of profitability and shareholder value. They first compiled information on the diversification-performance linkage as in a qualitative review and then they computed a sample size-weighted mean correlation on the 34 studies included in the analysis. The results revealed the average correlation between diversification and firm performance to be positive and significant with value of 0.11, and the correlation corrected for measurement reliability was 0.18. They also revealed that the differences in results found in the primary studies used in their analysis are due to statistical artifacts and cannot be attributed to potential situation, sample or method specific moderators.

Kiker and Banning (2008) conduced meta-analysis in orde Villalonga (2004b) estimated the value effect of diversification by matching diversifying and single segment firms on their propensity score and found out that diversification does not destroy shareholder value.

Liebenberg and Sommer (2008) examine performance as a function of line-of-business diversification and other correlates for a sample of property–liability insurers for the period 1995–2004. Their results indicate that undiversified insurers consistently outperform diversified insurers. They find a diversification penalty of at least 1% of return on assets or 2% of return on equity. They find that capitalization and size are

positively related to performance, that insurance groups underperform compared to unaffiliated insurers, and that stock insurers outperform mutual insurers.

Andrew, Dean and Paul (2008) examine the product diversification of a multinational firm within each of its host-country markets. Based on a sample of 12,992 foreign subsidiaries of Japanese multinational firms, they find that higher levels of within-country product diversity led to higher subsidiary performance where the institutional strength of the local market was weak, and where a firm's corporate product diversity level was high. Their study highlights the importance of examining a multinational firm's strategy in its individual host-country markets, as influenced by the institutional characteristics of a host-country market and the corporate-level strategy of the multinational firm.

Elango, Ma and Pope (2008) examine the relationship between product diversification and firms' performance in the U.S. property–liability insurance industry for the period 1994–2002. They find that the extent of product diversification shares a complex and nonlinear relationship with firms' performance and that performance benefits associated with product diversification are contingent upon an insurer's degree of geographic diversification.

Kamwaro (2008) undertook a causal research design approach in studying the impact of portfolio choice on financial performance of investment companies in Kenya. He did a census of the 4 investment firms which were listed at the Nairobi securities exchange

covering the period between 2007 and 2011 using secondary data. He applied multiple linear regression and the method of ordinary least squares to establish the impact of investment portfolio choice on investment firms. The findings indicate that investment in bonds, real estate, equity and size of the company positively impacted on financial performance of unit trusts.

Shyu and Chen (2009) investigated the extent of firms' diversification and their performance with respect to different life stages. They investigated that firms that were in their growth stage showed significant results but the firms that were in maturity stage did not produced such results. They also pointed out that firms in mature stage and engaged in related business had outstanding incremental value. They concluded that a life cycle stage of corporate had a substantial effect on the relationship between diversifying into related and unrelated business and performance.

McShane and Cox (2009) examine what makes these long-term care insurers different and whether managers are following a diversification or strategic focus strategy. They find that strategic focus is a consistently important factor and that managers' participation and volume decisions are made independently.

Ojo (2009) examined the impact of corporate diversification on firm performance of selected Nigerian companies. Survey design was adopted for the study with application of simple random sampling technique in selecting case study companies as well as the

respondents. Primary data was collected through questionnaires. The hypothesis was tested using data analyzed through descriptive statistics, correlation and coefficient of determination. The study concluded diversification positively impacted on performance of firms in Nigeria. The study focused on the diversification strategies on selected firms.

Cummins, Weiss, Xie, and Zi (2010) examine economies of scope in the U.S. insurance industry over the period 1993–2006. They analyze whether it is advantageous for insurers to offer both life–health and property–liability insurance or to specialize in one major industry segment. They find that property–liability insurers realize cost scope economies, but they are more than offset by revenue scope diseconomies. On the other hand, they find that life–health insurers realize both cost and revenue scope diseconomies and conclude that strategic focus is superior to conglomeration in the insurance industry.

Pavic and Pervan (2010) examine the performance effect of diversification in the Croatian non-life insurance industry for the period 2004–2007. Their results indicate that both measures of diversification have a negative and statistically significant influence on profitability.

Nasiru, Ibrahim, Yahya, and Aliyu (2011) determined the influence of diversification on the performance of some Nigerian construction firms. Financial statements from seventy construction firms were analyzed. The specialization ratio method was used to measure and categories the firms into undiversified, moderately diversified and highly diversified

firms, and profitability ratios were used to measure the group-wise performance of the firms. The Student t-test was used to test the relationship between the extent of diversification and performance. The findings reveal that undiversified firms outperform the highly diversified firms in terms of Return on Total Assets and Profit Margin. Similarly, the moderately diversified firms were found to outperform the highly diversified firms in terms of Return on Equity, Return on Total Assets and Profit Margin. However, no performance difference was found between the undiversified firms and the moderately diversified firms based on the three measures used. A nonlinear relationship was found between the extent of diversification and performance. It was concluded that diversification does not necessarily lead to an improvement in profitability. The implication is that firms are better-off remaining focused if the aim is to improve financial performance.

Meric, Gishlick, Taga and Meric (2011) in explaining risk, returns and diversification in selected bear and bull markets, concluded that Malaysia, Japan, U.S., and Switzerland country index funds had the best performance in both markets (bear and bull markets). But, positive returns are only possible only when the economic condition is positive. Investors in international settings usually consider market indices as one of the asset class in their portfolios. So under normal economic conditions, portfolio diversification normally yields positive returns for the investors while during bad economic conditions the returns are badly affected. During crisis period, portfolio benefits decreases and during post-crisis period, portfolio benefits increases.

Berry-Stolzle et al. (2012) examine variations in line-of-business diversification status and extent among property–liability insurers for the period 1996–2006. Their results show that the extent of diversification is not driven by risk pooling considerations; insurers operating in more volatile business lines do not diversify more. Using a measure of unrelated line-of business diversification they find support for the diversification prediction of the managerial discretion hypothesis, that mutual insurers should be less diversified than stock insurers. While mutual insurers tend to exhibit higher levels of total diversification, they engage in significantly less unrelated diversification than do stock insurers.

Ade (2012) examined the performance of a sample of Nigerian companies in relation to specialization, related, unrelated and mixed product market diversification strategies. It was proposed that firms that pursue related diversification strategy outperform and grow faster than those that attempt to pursue unrelated diversification strategy. It was further proposed that firms that pursue related diversification strategy exclusively will perform better than firms that pursue a mixed (i.e. related and unrelated) diversification strategy. Using the Panel Regression analytical technique involving correlation, F-statistics and descriptive statistics, the result of the Fixed Effect test showed that there is a high and positive correlation between financial performance and growth of firms and related diversification strategy. Related diversifiers had a relatively higher level of financial performance and growth than unrelated and mixed diversifiers. A marginal correlation was found between unrelated and mixed modes of diversification and financial

performance and growth. The panel regression analysis showed that related diversification has a significant impact on performance ($p< 0.05$) while unrelated diversification has a negative but non-significant impact on performance and growth. The result of the F-statistics showed that there were significant performance and growth differences between firms utilizing related diversification strategies and those utilizing unrelated diversification strategies ($F =147.4405$, $p <0.05$). The panel model result further confirmed that there is a significant difference between the performance and growth of firms using mixed (related and unrelated) diversification strategies and the performance and growth of firms pursuing related diversification strategy exclusively. A significant difference was also found between the performance and growth of firms that develop through unrelated diversification and the performance and growth of firms that remained specialized, with firms that remained specialized performing better on all parameters and growing faster than those that develop through unrelated diversification only. The study concludes that the financial performance and growth of firms in Nigeria are significantly affected by the mode of diversification used and recommends that Nigerian firms that are seeking a sustainable fast growth and superior performance should pursue either a related product-market diversification strategy or a specialization strategy.

Iqbal, Hameed and Qadeer (2012) examined the Impact of Diversification on Firms' Performance in Pakistan. The data was collected through secondary research and Stock Exchanges sites were the source of information to collect the data of the companies. Total 40 companies were selected on the basis of Specialization Ratio (SR). Companies whose

information were available and remained in the same category for the entire 5 years (2005-2009) were included in sample. The results of this study showed that there is no positive relationship between diversification and firms' performance. All firms are performing equally whether they are highly diversified firms, moderately diversified firms or less diversified firms with respect to their return and risk dimensions.

Odhiambo (2013) studied the association between portfolio diversification and financial performance of deposit taking savings and credit cooperative societies in Kenya authorized to operate in Kenya by Nairobi County. Portfolio diversification was measured by working capital management represented by financial conversion cycle, current ratio, and debt ratio and turnover growth. The study concluded that portfolio diversification influences the performance of SACCOS positively.

Karimi (2013) investigated the relationship between portfolio choice and profitability of investments companies listed with Nairobi Securities exchange by employing a descriptive research design .The study's population was 4 companies listed at the NSE as at 2012.A stratified sample of 49 managers was selected and questionnaires administered. The findings of the study indicate that investment is about selecting the right combination of stocks with minimal risks. The study also concluded that institutional investors are more conservative when it comes to investment and their strategy is to combine the highest return with the lowest risk possible.

Obilor (2013) examined the impact of agricultural credit scheme fund, agricultural product prices, government fund allocation and commercial banks' credit to agricultural sector on agricultural productivity in Nigeria. The result revealed that Agricultural Credit Guarantee Scheme Fund and government fund allocation to agriculture produced a significant positive effect on agricultural productivity, while the other variables produced a significant negative effect.

Nwankwo (2013) investigated the agricultural financing options in Nigeria and their implication on the growth of Nigerian economy. Using the ordinary least square method, the study revealed that agricultural financing had significant impact on the economic growth of Nigeria. The result further indicated that loan repayment rate has negative and significant impact on the growth of Nigerian economy over the years.

Dorcas (2013) investigated the role tourism would play if the Nigerian economy is diversified through tourism. This was carried out using the quantitative method of data collection in combination with the use of relevant literature. The findings report the result from a linear model through the multiple regressions analysis for the prediction of tourism's prospect in the Nigerian economy if diversified. The study corroborates the literature and showed the empirical support of effects of tourism on the Nigerian economy and concludes that tourism would be of immense benefit to the Nigerian economy.

Kareem, Bakare, Raheem, Olagumela, Alawode and Ademoyewa (2013) examined the macroeconomic factors (such as food import value, interest rate, commercial bank loans on agriculture, GDP growth rate and foreign direct investment) influencing agricultural output in Nigeria. Using multiple regression analysis technique, the result shows that foreign direct investment, commercial bank loan, interest rate and food import value have positive relationship with agricultural output.

Enyim, Ewno and Okoro (2013) applied econometric tests such as unit root, cointegration, error correction model and Grange causality test to examine the relationship between banking sector credit and performance of the agricultural sector in Nigeria. The findings show that government expenditure on agriculture has insignificant impact on agricultural productivity. It also revealed that commercial banks' credit to the agricultural sector has a positive impact on agricultural productivity.

Olaleye (2013) used a thirty (30) years dataset of Oil, manufacturing and agricultural share of total exports of Nigeria as independent variables and per capita income as the dependent variable which is used to capture economic development and welfare, which is important at a time the government of Nigeria, is focusing on diversifying the economy. Thus, this study is an inevitable tool for policy makers and sector actors to properly optimize the benefits in their attempts at expanding the export basket of the country. This paper also analyzes theories and several attempts by the government at export diversification, some still ongoing and others not effective due to the changing need of

the economy. The result estimation shows that all the variables used in the study are stationary at first differenced and also the Johansen co-integration test confirm the existence of a long run relationship between the variables. It is of high importance to note that the granger casualty test indicated that there is a uni-directional relationship between Per Capita income and all the variables except Agricultural share of export which exhibits bi-directional causal effects. This confirms the need for the country to look into diversifying the economy with a view to deepen the impacts of other sector on socio-economic development of the people. The study actually confirmed the assertion of relationship between export diversification and economic growth in Nigeria, using the Granger Casualty test which is the first time this method is adopted in the study of the impact of export diversification of the economy of the country, which has added to the empirical evidence.

Olajide, Akinlabi and Tijani (2013) empirically examined the impact of agriculture resources on economic growth in Nigeria. Using the ordinary least square method, the findings confirmed that agricultural sector has been neglected during the period of oil boom despite its positive relationship with output growth in the country.

Uma, Eboh and Obidike (2013) appraised the influence of agriculture on economic growth in Nigeria from 1970 to 2009 using the Ordinary Least Square method and found that the contribution of the livestock, fishing, and crop production were insignificant whereas forestry significant contribute to output growth.

Msoo, Akaakohol and Goodness (2014) examined the socioeconomic characteristics that influence the decision to diversify and also the welfare effect of diversification on farm households in Makurdi, Benue State. A total of 120 farm households were sampled using a simple random technique. Structured questionnaires were used in collecting the data. The ordinary least square (OLS) model was used to analyze the welfare effect of diversification while the Logit model was used to analyze the determinants of diversification. The Logit results show that a male-headed household, education and credit increase the probability of diversification while farming experience and market access decrease the probability. The OLS result shows that diversification, age, education and credit have a positive and significant effect on household welfare while household size has a negative effect. These results have important implications for policy, economic growth and development.

Udih (2014) used primary and secondary sources of information extracted from five (5) banks and ten (10) agricultural enterprises in Delta State, Nigeria to investigate the impact of banks credit on agricultural development. Empirical findings were carried out using percentage ranking, mean, standard deviation and Pearson product moment correlation. The findings showed that banks' credits and advances to agricultural entrepreneurs promotes agricultural development and productivity, and that regulated banks' credits to the agricultural entrepreneurs has no or little impact on the entrepreneurship performance.

Mashiri and Sebele (2014) looked at diversification as a corporate strategy and its effect on firm performance using Conglomerates in the Food and Beverages Sector listed on the ZSE. The study used a combination of primary and secondary data. Primary data was collected through interviews while secondary data were gathered from financial statements and management accounts. Data was analyzed using SPSS computer package. Three competing models were derived from literature (the linear model, Inverted U model and Intermediate model) and these were empirically assessed and tested. The research study indicated an important answer, which is diversification and performance were linearly and positively related.

Bahr and Maas (2014), noted that international investing can play an important role in portfolio diversification and increasing returns in international markets. In their research work, they studied the international equity markets in comparison with US stock market.

Luciana and Paulo (2014) examined the relationship between trade and investment in technology adoption when firms face demand uncertainty. Their model predicts that, for a given overall market size, exporting to several countries reduces firms' demand uncertainty and, hence, raises incentives to invest in productivity improvements. The effects of diversification are heterogeneous across firms: An additional foreign market matters more for firms exporting to fewer destinations. They test the proposed theory using a large sample of Argentinean manufacturing exporters. The predictions of the model are supported by the data.

Arawomo, Oyelade and Tella (2014) contributed to the evolving literature by examining the extent of export diversification in Nigeria and also analyzed the impact of foreign direct investment on it. Two major methods of export diversification: export count (horizontal) and Herfindahl Index were used. Nigeria's exports flows based on 4-digit SICT product classification were used. The Generalized Moment Methods (GMM) was used to analyze our specified model. Empirical analysis showed that foreign direct investment discourages export diversification in Nigeria, while domestic investment promotes it. Exchange rate and democratic accountability are other factors that discourage export diversification in Nigeria. No evidence was found on the impact of per capita GDP, trade openness and natural resource.

Caroline, Ireen and Cleopas (2014) examined the role of export diversification on economic growth in South Africa. The study employed vector error correction model to determine the effect of export diversification and possible factors on economic growth. However, the authors revealed that export diversification and trade openness are positively related to economic growth, while real effective exchange rate, capital formation and human capital have negative long-run relationship with economic growth.

Using Vector Auto regressive model, Nadira and Aminu (2014) investigated the impact of agricultural and credit guarantee scheme fund (ACGSF) on economic growth in Nigeria within the period of 1978 and 2011. Empirical findings revealed that improved

and efficient credit programme is required in the sector so that productivity of the sector can increase and promote economic growth.

Omorogiuwa, Zivkovic and Ademoh (2014) investigated the role of economic factors on agricultural productivity and overall economic development of the Nigerian economy. The authors concluded that the basis of agriculture development should start with the empowerment of the poor.

Muttaka (2015) examined the effect of Nigeria's oil dependency on economic growth. He observed that Nigeria has wasted much of its opportunities to break away from underdevelopment despite its massive natural and human resources endowment due to heavy reliance on her huge crude oil resources, regrettably mismanaged, as the major source of revenue. He identified and discussed on some key drivers of economic diversification such as investment, governance and regional dimensions of economic diversification as well as human and natural resources. He found that of all the other drivers, good governance remains a prerequisite in building an enabling environment for such diversification.

Akewushola (2015) examined the impact of Information and Communication Technology (ICT) on the performance of 12 selected Nigerian firms that are pursuing a strategy of related product-market diversification. Related diversification was measured by the extent of diversification arising from involvement in several industries of the same

industry group. ICT intensity was measured by dividing the ICT budget of a company. Gross margin, financial performance ratios and sales growth were used to measure performance. a cross-sectional survey research design was used to collect primary and secondary data for the study. Convenience sampling technique was used to select the sampled firms while purposive random sampling method was used to select 426 respondents who served as multiple informants for the survey. A five-point Likert scale was used to measure the opinions of the respondents on the level of product-market diversification and ICT with the former group performing better than the latter group. The result of the regression analysis showed that the intensity of ICT has a significant influence on the performance of firms that are using a related product-market diversification strategy with a co-efficient of 5.170. The R2 obtained showed that the total variability in the corporate performance of a related product market diversifier can be explained by the intensity of ICT thus making ICT intensity a good predictor of organizational performance. The study concludes that the performance impact of related-market diversification is not the same for all firms and is largely relative and determined and moderated by the intensity of ICT in a firm.

Karthik, George and Singla (2015) takes a step forward to address that call by arguing that the underlying relationship between ID and P is contingent upon product diversification (PD) of the firm. In particular, we hypothesize and provide evidence that the ID and P relationship is positively moderated by PD when the firm has both high levels of both ID and PD or low levels of both ID and PD.

Onodugo, Benjamin and Nwuba (2015) attempted to seek out how diversification of the economy will enhance stable and viable economic growth in Nigeria. It was found that for the economy to be diversified there has to be a very serious paradigm shift in economic policies and political will to implement such changes in policies. Furthermore, the data show that the neglect of agriculture has, in addition, led to the constant depreciation in GDP of the country. Hence this clarion calls for urgent diversification of the Nigerian economy.

Andreou and Louca (2015) investigate the role of organizational learning on the valuation effects of corporate diversification. The empirical findings suggest that corporate diversification reduces shareholders' wealth. However, consistent with the absorptive capacity viewpoint of organizational learning, diversification performance depends on repetitive and accumulative experiences that relate to a firm's prior diversification activity and/or a firm's experience in operating in multiple-business segments. Specifically, single-business firms that diversify once demonstrate significant value reduction. In contrast, multi-business firms that diversify once do not demonstrate value reduction, while single/multi-business firms that diversify multiple times demonstrate material value creation. Findings also reveal that performance is conditional on the mode of diversification since internal growth diversification show higher valuation effects than diversifications through acquisitions.

Godwin and Ubong (2015) using the error correction mechanism (ECM) revealed the extent to which export diversification can influence economic growth in Nigeria. The results of the study showed that Nigeria could exploit from her untapped trade potentials for sustained gains both in the short-run and long-run. The results further indicate that by diversifying the economy, encouraging large scale industrialization of the non-oil sector, emphasizing deepening technology in trade and investment and an improvement in agricultural sub-sector among other factor, will further enhance sustainability in growth.

Somnath and Saptarshi (2015) empirical analysis of a large sample of BG-affiliated Indian firms over a five-year period (2004-2008) indicates that the influence of corporate diversification on firm performance is greater for affiliated service firms than affiliated manufacturing firms. Results also indicate that the influence of BG size and diversity on diversification-firm performance relationship varies significantly depending on whether the focal firm belongs to the manufacturing or service sector. Firm's share ownership does not generate similar influence.

Michele, Sarah and Tania (2016) investigated the relationship between a firm's organization of labor defined as its number of hierarchical `layers' and the scope of its export portfolio in terms of product-destination varieties. The empirical analysis is based on a matched employer- employee dataset covering the population of French manufacturing firms over the period 2009-2013. Their analysis suggests that market expansion, and in particular export diversification, is associated with a change in firm

labor organization, namely an increase in the number of hierarchical layers, in the share of managers and in wage dispersion. They show how these results are consistent with a simple model where the complexity of a firm's operations increases in the number of product-destination couples exported, and where managers' role is to address some of the problems arising from increased complexity of operations.

Onur and Ihsan (2016**)** determine whether there is a difference between types of diversification and performance comparing Turkey, Italy and Netherlands. There are studies with the conclusion that the indicators of the relationship between diversification strategies and firm performance of developed countries differ from the indicators of developing countries. The data of 166 firms in Netherlands, 265 firms in Italy and 128 firms in Turkey were analyzed. The data of 2007-2011 was used in the research. Return on Assets (ROA) and Return on Sales (ROS) for financial performance and Entropy Index for diversification were used. According to the results, there is no correlation between total entropy and a performance criterion ROA and ROS in Italy and Netherlands. On the other hand, in Turkey, it is understood that there is a low-level positive correlation between total entropy and firm performance.

Makhoha, Namusonge and Sakwa (2016) examined portfolio diversification on financial performance of banks. Mixed research design was used and data collected using questionnaires and interviews on 43 commercial banks in Kenya and 133 managers randomly selected. It was established portfolio diversification significantly and positively

influenced financial performance of commercial banks in Kenya and that diversification of investments dad enabled increase in profits and performance in the past years.

Rop, kibet and Bokongo (2016) investigated the Impact of portfolio diversification on financial performance of commercial banks in Kenya. The study employed an exploratory research design whereby secondary data was collected using data collection sheets for secondary data and interviews were conducted to collect primary data from a sample of 40 banks. The study concluded that much work was needed to promote diversification of bank portfolios.

Mulwa and kosgei (2016) used an expose facto design to investigate the Impact of diversification, solvency and credit risk on financial performance on banks using panel data from 43 banks in Kenya over nine years. The findings of the study indicate that income and asset diversification negatively and significantly affects the commercial banks ROA while geographical diversification positively and significantly affects ROA and ROE. Also, a significant positive moderation Impact was found between geographical diversification and ROE.

Sang, Kim and Chulung (2017) analyzed the influence of the technological diversification on a firm's innovation capabilities and investigates the effect of various strategies on the firm's financial performance in a technology-oriented environment. We employ the entropy measurement to calculate technological diversification with 2095

patents, which are applied from years 2009 to 2011 by 507 firms that have participated in Korean Government Information Technology (IT) Research and Development (R&D) supporting programs. However, in the case of the firms with sufficient resources, increasing technological diversification among the unrelated technology fields plays a key role on the firms' performance. Furthermore, the degree of the technological diversification should be adjusted dynamically in compliance with the change of a firm's innovation capabilities. Therefore, these results suggest that a firm should develop differentiated competitiveness through specialization by prioritizing its capabilities, and then exploit unrelated technological diversification to search for new opportunities.

Ranka, Vladimir and Dragan (2017) provide empirical evidence on the relation between line-of-business diversification and performance for the insurance companies that operated in the republic of Serbia in the period 2004–2014. The research results show that the relation between risk-adjusted returns measured both by return on assets and return on equity and line-of-business diversification and performance measured by entropy is significant and positive, which means that diversified insurers outperform undiversified insurers. These results could be useful in decision making for insurance companies as they suggest the need for diversification (specialization), growth in size, capitalization and affiliation (grouping).

Kook, Kim and Lee (2017) analyze the influence of the technological diversification on a firm's innovation capabilities and investigates the effect of various strategies on the

firm's financial performance in a technology-oriented environment. They employ the entropy measurement to calculate technological diversification with 2095 patents, which are applied from years 2009 to 2011 by 507 firms that have participated in Korean Government Information Technology (IT) Research and Development (R&D) supporting programs. In our framework, a firm should not diversify among the related technology fields, but should concentrate on a specific technology to reinforce the competitive advantage. However, in the case of the firms with sufficient resources, increasing technological diversification among the unrelated technology fields plays a key role on the firms' performance. Furthermore, the degree of the technological diversification should be adjusted dynamically in compliance with the change of a firm's innovation capabilities.

Irean, Chan and Rozaimah (2017) investigated the relationship between gender diversity in a firm's board of directors and financial performance of firms listed on Bursa Malaysia for the period between 2009 and 2013. Using unbalanced panel data analysis, we tested whether gender diversity in the boardroom may influence the firm's performance, as measured by Tobin's Q. We employed four different proxies for gender diversity (the dummy variable for women, the percentage of women on the board, the Blau index, and the Shannon index) to provide a more comprehensive measure of gender diversity. This study suggests that a higher degree of female representation on the board increases a firm's financial performance. Positive discrimination favouring female boardroom

appointment is therefore likely to persist as a feature of the corporate governance landscape in Malaysia.

Manyuru, Wachira and Amata (2017) investigated the impact of corporate diversification on the value of firms listed at the Nairobi Securities Exchange (NSE). Panel regression techniques were used as the estimation methods. The overall findings of the study where somewhat mixed. The study finds that industrial diversification reduces firm value, but geographical diversification does not have a significant impact on firm value. When examining each industry individually, the study established that industrial diversification enhanced firm value in the agricultural industry but did not significantly influence firm value in the other industries.

Humera, Rohail and Maran (2017) examined the relationship between gender diversity among corporate board and firms‟ financial performance using 100 non-financial companies in Malaysia. This study uses data from 2009 to 2013. Return on equity measures the financial performance. Gender diversity measured by the number of females on board. This study incorporates descriptive statistics, correlation testing, and regression analysis. However, the results of gender diversity have a positive impact on performance (ROE).

Musembi and Jagongo (2017) determined the relationship between diversification and firm performance has formed the subject of many researches but many researchers have

disagreed on the nature of the relationship between diversification and performance. Because of the contradictory results concerning the relationship between diversification and performance, the question of whether diversification improves or worsens firm performance is still worthy of further research such as the one being undertaken in this study. In addition, despite the existence of these studies, very little attention has been given to the developing countries. Besides, the impact of diversification on firm performance has not received adequate research attention in Kenya. The study will examine the Impact of portfolio diversification on financial performance of investment firms listed in the NSE in Kenya. The study will take an explanatory non experimental research design. The target population for the study will be the investment firms listed in the NSE.

Maurizio, Tiziana and Javier (2018) evaluated the effect of diversification strategy on corporate value for a sample of Italian companies. It accounts for both the level of diversification and relatedness components. Empirical analyses how a U-shaped curvilinear relationship between diversification and value. In contrast to the main-stream literature, our results highlight that related diversification has a negative effect, while unrelated diversification is a value-creating strategy.

Shoaib, Peng, Susheng, and Badar (2018) paper was a contribution to the ongoing debate on the benefits and drawbacks of bank revenue diversification. Revenue diversification may benefit banks if diversified activities are inherently less risky and possess high

returns, while it may hurt banks if diversified activities are more risky and have low returns. Analyzing a panel dataset of 200 commercial banks from all South Asian countries, we found that overall revenue diversification into non-interest income has a positive impact on the profitability and stability of South Asian commercial banks. They further observed that different types of non-interest income-generating activities have different impacts on bank performance and stability. While fees and commission incomes have a negative impact on the profitability and stability of South Asian commercial banks, other non-interest income has a positive impact. Their results imply that banks can benefit from revenue diversification if they diversify into specific types of non-interest income-generating activities.

Ogbonna (2018) examine empirically the relationship between private sector development and economic diversification from 1999Q1-2016Q4. Employing time series analysis with data drawn from Nigeria, the results indicate that the level of private sector investment is a significant determinant of economic diversification both in the short- and long-run. Equivalently, quality of infrastructure, violent conflicts, quality of governance, and openness are also important determinants of economic diversification in the short- and long-run.

Odeleye and Olunkwa (2018) examined the relationship between export diversification and economic growth in Nigeria. The study used an annual time series data for the period 1981-2015 and employed Ordinary Least Square (OLS) methods involving Error

Correction Mechanism (ECM), Co-Integration, and Over-Paramatization and Parsimonious model. Johansen co-integration test revealed that the variables are co-integrated which confirm the existence of long-run equilibrium relationship between the variables. The results of the study revealed that contributions of agriculture and manufacturing sectors to export is negative; signifying that export diversification has negative effects on Nigeria's economic growth. It suggests that for meaningful diversification of the export base of the economy, government should promote semi-finished and finished goods exportation in order to create an attractive manufacturing sector that can prompt local and foreign investment.

Ayobola, Ekundayo, Muibi (2018) examined the relationship between resource endowment and export diversification and its implication for economic growth in Nigeria based on data from 1981 to 2015. The result of the Granger causality test suggests that unidirectional causality runs from oil production to economic growth, while export diversification does not granger cause economic growth. From the error correction result, it was established that export diversification positively impacts growth from the last two periods, while in the current period, it has negative effect on growth. This means that the key issue with Nigerian economy might not be structural but institutional. That is, even if the economy is diversified, the expected result may still be a ruse without appropriate economic institutional reform. The study concludes that specialization is preferred to diversification for Nigeria in the current circumstance. Hence, the key issue to sustain growth in Nigeria is not in the number of productive sectors but in their efficiency.

Adesoye, Adelowokan, Maku and Salau (2018) examined how enhancing the agricultural value chain can contribute to rapid economic diversification in Nigeria within the period of 1981-2015. The autoregressive distributed lag (ARDL) model was employed as the econometric method of estimation. The inferences were drawn at 5% significant level. The result revealed that the agriculture expenditure had positive and significant impact on agriculture sector productivity in Nigeria. The findings showed that agricultural raw material, agricultural machinery and agricultural land have direct impact on agricultural productivity in Nigeria. Agricultural machinery and agricultural land were found to be statistically significant at 5% significance level. The empirical results revealed that capital and labour have direct impact on economic growth. However, agriculture productivity had positive impact on economic growth in Nigeria. The study concluded that agricultural value chain contributed significantly to the diversification of the Nigerian economy. The study suggests that government should make deliberate efforts to create institutions that will make policy programmes on agricultural development not only to enhance its growth and the overall output growth but also make it inclusive.

2.4 Summary of the Review

Author(s)	Year	Objective	Methodology	Findings
Meador, Ryan and Schellhor	(2000)	Focus on the relationship between firms's output choice and measures of X-efficiency.	Using data for the life insurance industry for the period 1990–1995	They find that diversification across multiple insurance and investment product lines resulted in greater X-efficiency than a more focused production strategy.

Berger, Cummins, Weiss and Zi	(2000)	Provide evidence on the validity of the conglomeration hypothesis versus strategic focus hypothesis for financial institutions using data on U.S. insurance companies.		Their results suggest that the conglomeration hypothesis dominates for some types of financial services providers and the strategic focus hypothesis dominates for other types.
DeLong	(2001)	Used a similar approach to examine the diversification question more directly.	Bank mergers are decomposed into those that either diversify or focus along either geographic or activity dimensions and the results show the largest gains for those mergers that increase focus both in terms of geographic location and activity. In particular,	The primary conclusion was that "diversifying mergers do not create value. Again, this is not a direct test of the market's reaction to increases in nontraditional activities, but it does suggest that diversification gains are not expected for typical bank expansions via mergers
DeYoung and Roland	(2001)	examines the link between bank profitability, volatility,	Different revenue shares for 472 large commercial banks from 1988 to 1995 was extracted and regressed.	They conclude that increased fee-based activities (revenue from all sources except loans, investment, deposit, and trading activities) increases the volatility of bank revenue and bank earnings.

				Taken together, there is little evidence of large diversification benefits from these papers.
Mark	(2001)	Analyses the association between diversification and firm performance in a sample of up to 1449 large Australian firms (1994 to 1997).	Regressions analysis	Results from the full sample show that more focused firms have higher profitability.
Cummins and Nini	(2002)	Investigate the use of capital by insurers to provide evidence on whether the capital increase represents a legitimate response to changing market conditions or a true inefficiency that leads to performance penalties for insurers.	Their empirical analysis includes a regression of performance on capitalization and several controls, line-of-business diversification.	They find an inverse relation between diversification and Return on equity.
Choi and Cowing	(2002)	Analyzed the relationships relating corporate diversification,	The authors used a Herfindahl-Hirschman index (HHI) of group concentration	The authors reported regression results using various model specifications. However

		concentration and performance for a group of 25 of the largest business groups (Korean chaebols) during the period of 1985–1995. In order to measure the impact of member firm concentration within the group,	(HHFS). As a measure of chaebols diversification across industries, two variables were used: an HHI based on the chaebol asset shares for each industry within which the chaebol operates (HHDV) and the number of member firms in the group. Performance was measured as annual after-tax chaebol profit rate on total assets.	regardless of model specifications chaebol concentration (HHFS) coefficient was always negative and generally significant at the 10 percent level, while HHDV was insignificant signaling that operating in a few versus many industries, did not appear to affect group profits.
Li and Greenwood	(2004)	Examine the effect of diversification upon intra-industry performance in the Canadian general insurance industry.	Regression analysis	Their test of a theoretical model indicates that mutual forbearance provides advantage under specified conditions, that market structuration also provides advantages, but that diversification per se does not.
Doukas and Kan	(2006)	Pointed out that segments acquired by diversifying firms in most cases already	They computed a sample size-weighted mean correlation on the 34 studies	The results revealed the average correlation between diversification and firm performance to be positive

		traded at a discount before acquisition and hence their acquisition will improve performance. They first compiled information on the diversification-performance linkage as in a qualitative review and then	included in the analysis.	and significant with value of 0.11, and the correlation corrected for measurement reliability was 0.18.Thus refuting the post-acquisition negative relationship between diversification and performance in terms of profitability and shareholder value. They also revealed that the differences in results found in the primary studies used in their analysis are due to statistical artifacts and cannot be attributed to potential situation, sample or method specific moderators.
Liebenberg and Sommer	(2008)	Examine performance as a function of line-of-business diversification and other correlates for a sample of property–liability insurers for the period 1995–2004.	Pearson correlation	They find that capitalization and size are positively related to performance, that insurance groups underperform compared to unaffiliated insurers, and that stock insurers outperform mutual insurers.
Andrew, Dean and Paul	(2008)	Examine the product diversification of a multinational firm within each of its host-country markets.	Used a sample of 12,992 foreign subsidiaries of Japanese multinational firms,	They find that higher levels of within-country product diversity led to higher subsidiary performance where the institutional

				strength of the local market was weak, and where a firm's corporate product diversity level was high.
Elango et al.	(2008)	Examine the relationship between product diversification and firms' performance in the U.S. property–liability insurance industry for the period1994–2002.	Coefficient correlation	They find that the extent of product diversification shares a complex and nonlinear relationship with firms' performance and that performance benefits associated with product diversification are contingent upon an insurer's degree of geographic diversification.
Shyu and Chen	(2009)	Investigated the extent of firms' diversification and their performance with respect to different life stages.		They concluded that a life cycle stage of corporate had a substantial effect on the relationship between diversifying into related and unrelated business and performance.
McShane and Cox	(2009)	Examine what makes these long-term care insurers different and whether managers are following a diversification or strategic focus strategy.		They find that strategic focus is a consistently important factor and that managers' participation and volume decisions are made independently.

Cummins et al.	(2010)	Examine economies of scope in the U.S. insurance industry over the period 1993–2006.	They analyze whether it is advantageous for insurers to offer both life–health and property–liability insurance or to specialize in one major industry segment.	They find that property–liability insurers realize cost scope economies, but they are more than offset by revenue scope diseconomies
Pavic and Pervan	(2010)	Examine the performance effect of diversification in the Croatian non-life insurance industry for the period 2004–2007.		Their results indicate that both measures of diversification have a negative and statistically significant influence on profitability.
Meric, Gishlick, Taga and Meric	(2011)	Explained risk, returns and diversification in selected bear and bull markets.	Used regression analysis	Concluded that Malaysia, Japan, U.S., and Switzerland country index funds had the best performance in both markets (bear and bull markets). But, positive returns are only possible only when the economic condition is positive. Investors in international settings usually consider market indices as one of the asset class in their portfolios.
Nasiru,	(2011)	Determined the	The Student t-test was	The findings reveal that

Ibrahim, Yahya, and Aliyu		influence of diversification on the performance of some Nigerian construction firms. Financial statements from seventy construction firms were analyzed.	used to test the relationship between the extent of diversification and performance.	undiversified firms outperform the highly diversified firms in terms of Return on Total Assets and Profit Margin. Similarly, the moderately diversified firms were found to outperform the highly diversified firms in terms of Return on Equity, Return on Total Assets and Profit Margin. However, no performance difference was found between the undiversified firms and the moderately diversified firms based on the three measures used.
Berry-Stolzle et al.	(2012)	Examine variations in line-of-business diversification status and extent among property–liability insurers for the period 1996–2006.	Using a measure of unrelated line-of business diversification	Their results show that the extent of diversification is not driven by risk pooling considerations; insurers operating in more volatile business lines do not diversify more. They engage in significantly less unrelated diversification than do stock insurers.
Iqbal, Hameed and Qadeer	(2012).	Examine the Impact of Diversification on Firms' Performance in Pakistan.	Total 40 companies were selected on the basis of Specialization Ratio (SR).	The results of this study showed that there is no positive relationship between diversification and

			Companies whose information were available and remained in the same category for the entire 5 years (2005-2009) were included in sample.	firms' performance. All firms are performing equally whether they are highly diversified firms, moderately diversified firms or less diversified firms with respect to their return and risk dimensions.
Ade	(2012)	Examined the performance of a sample of Nigerian companies in relation to specialization, related, unrelated and mixed product market diversification strategies.	Using the Panel Regression analytical technique involving correlation, F-statistics and descriptive statistics, the result of the Fixed Effect test showed that there is a high and positive correlation between financial performance and growth of firms and related diversification strategy.	A marginal correlation was found between unrelated and mixed modes of diversification and financial performance and growth. The panel regression analysis showed that related diversification has a significant impact on performance ($p< 0.05$) while unrelated diversification has a negative but non-significant impact on performance and growth.
Olaleye	(2013)	This paper analyzes theories and several attempts by the government at export diversification, some still ongoing and others not effective due to the changing	Used a thirty (30) years dataset of Oil, manufacturing and agricultural share of total exports of Nigeria as independent variables and per capita income	The result estimation shows that all the variables used in the study are stationary at first differenced and also the Johansen co-integration test confirm the existence of a long run relationship between the variables. It is

		need of the economy.	as the dependent variable which is used to capture economic development and welfare, which is important at a time the government of Nigeria is focusing on diversifying the economy.	of high importance to note that the granger casualty test indicated that there is a uni-directional relationship between Per Capita income and all the variables except Agricultural share of export which exhibits a bi-directional causal effects.
Uma, Eboh and Obidike	(2013)	Appraised the influence of agriculture on economic growth in Nigeria from 1970 to 2009	using the Ordinary Least Square method	Found that the contribution of the livestock, fishing, and crop production were insignificant whereas forestry significant contribute to output growth.
Obilor	(2013)	Examined the impact of agricultural credit scheme fund, agricultural product prices, government fund allocation and commercial banks' credit to agricultural sector on agricultural productivity in Nigeria.		The result revealed that Agricultural Credit Guarantee Scheme Fund and government fund allocation to agriculture produced a significant positive effect on agricultural productivity, while the other variables produced a significant negative effect.
Nwankwo	(2013)	Investigated the agricultural financing options in Nigeria and their implication on	Using the ordinary least square method,	The study revealed that agricultural financing had significant impact on the economic growth of

		the growth of Nigerian economy.		Nigeria.
Kareem, Bakare, Raheem, Olagumela, Alawode, and Ademoyewa.	(2013)	examined the macroeconomic factors (such as food import value, interest rate, commercial bank loans on agriculture, GDP growth rate and foreign direct investment) influencing agricultural output in Nigeria.	Using multiple regression analysis technique,	The result shows that foreign direct investment, commercial bank loan, interest rate and food import value have positive relationship with agricultural output.
Dorcas	(2013)	Investigated the role tourism would play if the Nigerian economy is diversified through tourism.	The findings report the result from a linear model through the multiple regressions analysis for the prediction of tourism's prospect in the Nigerian economy if diversified.	The study corroborates the literature and showed the empirical support of effects of tourism on the Nigerian economy and concludes that tourism would be of immense benefit to the Nigerian economy.
Enyim, Ewno and Okoro	(2013)	Examined the relationship between banking sector credit and performance of the agricultural sector in Nigeria.	applied econometric tests such as unit root, cointegration, error correction model and Grange causality test	The findings show that government expenditure on agriculture has insignificant impact on agricultural productivity.
Olajide, Akinlabi and	(2013)	Empirically examined the impact of	Using the ordinary least square method,	The findings confirmed that agricultural sector has been

Tijani		agriculture resources on economic growth in Nigeria.		neglected during the period of oil boom despite its positive relationship with output growth in the country.
Luciana and Paulo.	(2014)	Examine the relationship between trade and investment in technology adoption when firms face demand uncertainty.	their model predicts that, for a given overall market size, exporting to several countries reduces firms' demand uncertainty	The effects of diversification are heterogeneous across firms: An additional foreign market matters more for firms exporting to fewer destinations.
Mashiri and Sebele	(2014)	Looked at diversification as a corporate strategy and its effect on firm performance using Conglomerates in the Food and Beverages Sector listed on the ZSE.	The study used a combination of primary and secondary data. Primary data was collected through interviews while secondary data were gathered from financial statements and management accounts. Data was analyzed using SPSS computer package. Three competing models were derived from literature (the linear model, Inverted U model and	The research study indicated an important answer, which is diversification and performance were linearly and positively related.

			Intermediate model) and these were empirically assessed and tested.	
Caroline, Ireen, and Cleopas	(2014)	Examined the role of export diversification on economic growth in South Africa.	The study employed vector error correction model to determine the effect of export diversification and possible factors on economic growth.	However, the authors revealed that export diversification and trade openness are positively related to economic growth, while real effective exchange rate, capital formation and human capital have negative long-run relationship with economic growth.
Arawomo, Oyelade, and Tella	(2014)	Contributed to the evolving literature by examining the extent of export diversification in Nigeria and also analyzed the impact of foreign direct investment on it.	Two major methods of export diversification: export count (horizontal) and Herfindahl Index were used. Nigeria's exports flows based on 4-digit SICT product classification were used. The Generalized Moment Methods (GMM) was used to analyze our specified model.	Empirical analysis showed that foreign direct investment discourages export diversification in Nigeria, while domestic investment promotes it. Exchange rate and democratic accountability are other factors that discourage export diversification in Nigeria. No evidence was found on the impact of per capita GDP, trade openness and natural resource.
Bahr and	(2014)	In their research work,	Used regression	Noted that international

Maas		they studied the international equity markets in comparison with US stock market.	analysis	investing can play an important role in portfolio diversification and increasing returns in international markets.
Nadira and Aminu	(2014)	Investigated the impact of agricultural and credit guarantee scheme fund (ACGSF) on economic growth in Nigeria within the period of 1978 and 2011.	Using Vector Auto regressive model,	Empirical findings revealed that improved and efficient credit programme is required in the sector so that productivity of the sector can increased and promote economic growth.
Morogiuwa, Zivkovic and Ademoh	(2014)	Investigated the role of economic factors on agricultural productivity and overall economic development of the Nigerian economy.		The authors concluded that the basis of agriculture development should start with the empowerment of the poor.
Udih	(2014)	Investigated the impact of banks credit on agricultural development. Used primary and secondary sources of information extracted from five (5) banks and ten (10) agricultural	Empirical findings were carried out using percentage ranking, mean, standard deviation and Pearson product moment correlation.	The findings showed that banks' credits and advances to agricultural entrepreneurs promotes agricultural development and productivity,

		enterprises in Delta State, Nigeria		
Msoo Akaakohol and Goodness	(2014)	Examined the socioeconomic characteristics that influence the decision to diversify and also the welfare effect of diversification on farm households in Makurdi, Benue State.	A total of 120 farm households were sampled using a simple random technique. Structured questionnaires were used in collecting the data. The ordinary least square (OLS) model was used to analyze the welfare effect of diversification while the Logit model was used to analyze the determinants of diversification.	Result shows that diversification, age, education and credit have a positive and significant effect on household welfare while household size has a negative effect. These results have important implications for policy, economic growth and development.
Onodugo, Benjamin and Nwuba	(2015)	Attempted to seek out how diversification of the economy will enhance stable and viable economic growth in Nigeria.	The study employed regression analysis	It was found that for the economy to be diversified there has to be a very serious paradigm shift in economic policies and political will to implement such changes in policies. Furthermore, the data show that the neglect of agriculture has, in addition, led to the constant depreciation in GDP of the

				country. Hence this clarion calls for urgent diversification of the Nigerian economy.
Karthik, Rejie and Chitra	(2015)	Takes a step forward to address that call by arguing that the underlying relationship between ID and P is contingent upon product diversification (PD) of the firm.		provide evidence that the ID and P relationship is positively moderated by PD when the firm has both high levels of both ID and PD or low levels of both ID and PD.
Andreou and Louca	(2015)	investigate the role of organizational learning on the valuation effects of corporate diversification		Findings also reveal that performance is conditional on the mode of diversification since internal growth diversification show higher valuation effects than diversifications through acquisitions.
Somnath and Saptarshi	(2015)	empirical analysis of a large sample of BG-affiliated Indian firms over a five-year period (2004-2008)	Regression analysis	Results also indicate that the influence of BG size and diversity on diversification-firm performance relationship varies significantly depending on whether the focal firm belongs to the manufacturing or service
Godwin and	(2015)	Determined the extent	Using the error	The results of the study

Ubong		to which export diversification can influence economic growth in Nigeria.	correction mechanism (ECM)	showed that Nigeria could exploit from her untapped trade potentials for sustained gains both in the short-run and long-run. The results further indicate that by diversifying the economy, encouraging large scale industrialization of the non-oil sector, emphasizing deepening technology in trade and investment.
Akewushola	(2015)	Examined the impact of Information and Communication Technology (ICT) on the performance of 12 selected Nigerian firms that are pursuing a strategy of related product-market diversification. Related diversification was measured by the extent of diversification arising from involvement in several industries of the same industry group.	Convenience sampling technique was used to select the sampled firms while purposive random sampling method was used to select 426 respondents who served as multiple informants for the survey and used regression analysis	Showed that the total variability in the corporate performance of a related product market diversifier can be explained by the intensity of ICT thus making ICT intensity a good predictor of organizational performance. The study concludes that the performance impact of related-market diversification is not the same for all firms and is largely relative and determined and moderated by the intensity of ICT in a firm.
Michele,	(2016)	Investigate the	The empirical analysis	They show how these

Sarah and Tania		relationship between a firm's organization of labor defined as its number of hierarchical `layers' and the scope of its export portfolio in terms of product-destination varieties.	is based on a matched employer- employee dataset covering the population of French manufacturing firms over the period 2009-2013.	results are consistent with a simple model where the complexity of a firm's operations increases in the number of product-destination couples exported, and where managers' role is to address some of the problems arising from increased complexity of operations.
Onur and Ihsan	(2016**)**	Determine whether there is a difference between types of diversification and performance comparing Turkey, Italy and Netherlands.	The data of 166 firms in Netherlands, 265 firms in Italy and 128 firms in Turkey were analyzed. The data of 2007-2011 was used in the research. Return on Assets (ROA) and Return on Sales (ROS) for financial performance and Entropy Index for diversification were used.	According to the results, there is no correlation between total entropy and a performance criterion ROA and ROS in Italy and Netherlands. On the other hand, in Turkey, it is understood that there is a low-level positive correlation between total entropy and firm performance.
Kook, Kim and Lee	(2017)	Analyze the influence of the technological diversification on a firm’s innovation capabilities and investigates the effect	They employ the entropy measurement to calculate technological diversification with 2095 patents, which	However, in the case of the firms with sufficient resources, increasing technological diversification among the unrelated technology fields plays a

		of various strategies on the firm's financial performance in a technology-oriented environment.	are applied from years 2009 to 2011 by 507 firms that have participated in Korean	key role on the firms' performance.
Ranka, Vladimir and Dragan	(2017)	Provide empirical evidence on the relation between line-of-business diversification and performance for the insurance companies that operated in the republic of Serbia in the period 2004–2014.		The research results show that the relation between risk-adjusted returns measured both by return on assets and return on equity and line-of-business diversification and performance measured by entropy is significant and positive.
Odeleye and Olunkwa	(2018)	Examined the relationship between export diversification and economic growth in Nigeria.	The study used an annual time series data for the period 1981-2015 and employed Ordinary Least Square (OLS) methods involving Error Correction Mechanism (ECM), Co-Integration, and Over-Paramatization and Parsimonious model. Johansen co-integration test revealed that the variables are co-	The results of the study revealed that contributions of agriculture and manufacturing sectors to export is negative; signifying that export diversification has negative effects on Nigeria's economic growth.

			integrated which confirm the existence of long-run equilibrium relationship between the variables.	
Ogbonna	(2018)	Examine empirically the relationship between private sector development and economic diversification from 1999Q1-2016Q4.	Employing time series analysis with data drawn from Nigeria,	The results indicate that the level of private sector investment is a significant determinant of economic diversification both in the short- and long-run. Equivalently, quality of infrastructure, violent conflicts, quality of governance, and openness are also important determinants of economic diversification in the short- and long-run.
Ayobola ,Ekundayo and Muibi	(2018)	examined the relationship between resource endowment and export diversification and its implication for economic growth in Nigeria	based on data from 1981 to 2015. The result of the Granger causality test suggests that unidirectional causality runs from oil production to economic growth, while export diversification does	The result, it was established that export diversification positively impacts growth from the last two periods, while in the current period, it has negative effect on growth.

			not granger cause economic growth.	
Adesoye, Adelowokan, Maku and Salau.	(2018)	Examined how enhancing the agricultural value chain can contribute to rapid economic diversification in Nigeria within the period of 1981-2015.	The autoregressive distributed lag (ARDL) model was employed as the econometric method of estimation.	The inferences were drawn at 5% significant level. The result revealed that the agriculture expenditure had positive and significant impact on agriculture sector productivity in Nigeria

Authors Compilation 2018

2.5 Gap in Literature

Most of studies on this topic were carried out in developed countries such like; United States of America (USA), Germany, UK, and China. Studies such as Nasiru et al (2011); Ojo (2009) that have explored the subject of diversifications and financial performance in Nigeria are seen to be very limited, and have not captured variables like; foreign diversification, business subsidiary diversification, product diversification and income diversification. Hence, this study is motivated to carry out investigation on the subject matter among quoted non-financial companies in Nigeria to confirm the results obtained from foreign counterpart.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

The methodology that is adopted here related to the sequence of methods or procedures that will be employed in carrying out a research work of this nature for optimal result to be achieved. The various methods discussed under the following sub-headings are; research design, population of the study, sample size, method and sources of data collection, method of data analysis, model specification and technique and operational definition of variables.

3.1 Research Design

The study adopted the Ex-post facto design base on secondary data that was collected from annual financial reports of the selected non-financial firms quoted on the Nigerian Stock Exchange. The study based on ex-post facto since the event has taken place. Therefore, the data already existed and no attempt was made to manipulate the data of the variables employed for the study. Also, the study was based on analytical design because it sought to analyze the implication(s) of various diversification strategies against the selected performance indicators. The data validity and reliability is guaranteed as the financial statement follows a specified reporting rule before publication and submission to relevant authorities including Nigeria Stock Exchange.

The study examined the characteristics of the data, the relationship that exist among the variables and the causal effect relationship that exist between the variables using

regression analysis, descriptive statistics and correlations analysis. However, some test involving the use of Jarque Bera normality test, multi-colinearity test, and Hausman effect test for checking the correlated random effects and heterogeneity bias in the panel data is employed.

3.2 Population of the Study

The population of this study comprised of all listed non-financial companies on the Nigerian Stock Exchange operating under different sectors. According to the Nigerian Stock Exchange Fact Book 2016, there are one hundred and nineteen (119) listed non-financial companies. This is the most recent fact book as at the time of study. Therefore, the total population for this study is based on this figure.

The categories of firms used include Nigeria multinational firms, conglomerate, parent companies with subsidiary (ies), and multi-product firms. All the listed non-financial firms on Nigeria Stock Exchange formed the population of the study

3.3 Sample Size of the Study

A total of forty-one (41) non-financial firms were randomly selected out of the one hundred and nineteen (119) non-financial firms that are quoted in line with the variables of the study - foreign diversification, business subsidiary diversification, product diversification, and income diversification, hence they constitute the sample size of the study. It involves random selection which could be more accurately called a

randomly chosen sample. Random samples are used to avoid bias and other unwanted effects. However, the sample size employed was arrived at by subjecting the firms that possess the characteristics of diversification to the important considerations relevant for the balance panel data required for this study using data availability and accessibility for all the period involved as criteria. The number of firms that satisfied the above situation formed our data source for the test period 2007 to 2017. This gives a total of four hundred and fifty-one (451) firm year observations derived by multiplying the sample period of eleven years (11) by the sample size of forty-one (41) firms.

3.4 Source of Data and Method of Collection

The data used for the study was collected from the annual financial report of the sampled firms for the period ranging from 2007 to 2017. The data collected for the variables of: foreign diversification, business subsidiary diversification, product diversification, and income diversification which formed the independent variables, and the dependent variable of return on asset (ROA) from the annual reports of the selected firms. Other relevant data were extracted online and the Nigeria Stock Exchange information available both at the branch office Onitsha and Lagos head office.

3.5 Method of Data Analysis

The secondary data collected were analyzed using descriptive statistics, correlation and regression analysis. The descriptive statistics was used to evaluate the characteristics of the data: Mean maximum, minimum, and standard deviation and also checks for

normality of the data. The correlation analysis was used to evaluate the associational relationship between the variables and to check for multi-collinearity. The multiple regression analysis was used to evaluate the effect of the independent variables on the dependent variable. It reveals the degree of influence and effect the independent variables has on the dependent variable. Multiple regression analysis was employed to analyze the data for the study and also to test the corresponding hypotheses. Ordinary Least Square Regression Technique is unique because it possesses the property of Best Linear Unbiased Estimates (BLUE) when composed to other estimating techniques. The statistics to test for was include the significance of variables in the regression equation, co-efficient of determination (R^2), F-test.

Co-efficient of Determination (R^2) measured the explanatory power of the Independent variables on the dependent variable. T – Statistics measured the individual effect of these estimated independent variables on the dependent variable. F – Test statistics measured the overall statistical significance of the models. It used to generalize the hypotheses.

3.6 Data and Variable Description

The study used panel data that was collected from the sampled non-financial firms. The independent variables used are foreign diversification, business subsidiary diversification, product diversification, and income diversification while the dependent variable is return on asset. Income diversification: Firms are considered as income diversified if it generates additional income apart from source where its core revenue is being generated. Business subsidiary diversification: A firm is considered to be business diversified when

it is in more than one business line. The firm engages in more than one business line but in the same sector. It is measured by the number of business line the firms are into. Product diversification: A firm is considered to be product diversified when it generates revenue from the sales of more than one product. It is measured by the number of product line the firms has. Foreign diversification: In measuring foreign diversification, the proportion of overseas sales was used. Return on assets (ROA) is a firm performance management which is used to measure a firm's level of investment efficiency. Return on assets is the ratio of earnings before interest and tax (EBIT) to total assets for a certain period.

3.7 Operationalization of Study Variables

Variables	**Measures/Proxy**	Authors
Return on Asset	Return on assets is a firm performance management which is used to measure a firm's level of investment efficiency. Return on assets is the ratio of earnings before interest and tax (EBIT) to total assets for a certain period. Earnings before interest and tax (EBIT) / Total asserts	Qian, Yung, and Hamid (2012) Saman, Mohammad and Omid (2012)
Foreign diversification	Foreign diversification: In measuring foreign diversification, the proportion of overseas sales was used.	Qian, Yung, and Hamid (2012) Keith (2013), Wei-Hwa, Wei-Chun and Tsung (2010), and Chia-Wen and Heng – Yih (2008)
Business Subsidiary	Business diversification: The firm engages in more than one business line but in the same sector. It is	Ranka, Vladimir and Dragan (2017) Kerin and Rajan (1990), Khanna and Krishna (1999)

Diversification	measured by the number of business line the firms is into.	Scholar (1999) and Lang, Larry and Rane (1994)
Product diversification	Product diversification: A firm is considered to be product diversified when it generates revenue from the sales of more than one product. In this study it is measured as dummy where firm i assumes 1 if engage in diversification activities otherwise 0.	Patrick (2012)
Income Diversification	A firm is said to have diversified its income if generates additional income apart from sources where its core revenue is being generated. In this study income diversification is measured as: dummy firm i that generates income from sources outside its core sources otherwise 0:	Berger and Ofek (1995)
Firm Size	Firm size is the logarithm of total assets of an organization.	Chang, Timo and Alan (2015) and Keith (2013)

Authors Compilation 2018

3.8 Model Specifications

Linear regression models are used to test each of the null hypotheses proposed in this study.

The model is premised on the main objective and anchored on the sub-objectives. The model used was adopted from the work of Qiming, Wenhuan, Yiping, Ke and Xiaoguang (2016) with the following specifications:

$$ROA_{it} = \alpha_0 + \beta_1 \quad SIZE_{it} + \beta_2 DIV_{it} + \beta_3 AGE_{it} \quad + \beta_4 OWN_{it} \quad + \beta_5 LEV_{it} \quad + \beta_6 TAX_{it} \quad + \varepsilon_{it}$$

$$Performance \quad = \alpha + \beta_1 \cdot Ln\,(asset) + \beta_2 \cdot EBIT\_Sales + \beta_3 \cdot Exp\_Sales + \beta_4 \cdot Diversification \tag{1}$$

$$Performance \quad = \alpha + \beta_1 \cdot Ln\,(asset) + \beta_2 \cdot EBIT\_Sales + \beta_3 \cdot Exp\_Sales + \beta_4 \cdot Diversification + \beta_5 \cdot Industry \cdot + \beta_6 \cdot Diversification \cdot Industry \tag{2}$$

However, the model for this research study is modified to suite the variables of the study and specified as follows:

Diversification Model

ROA = *f*(FORDIV, BUSDIV, PRODIV, YDIV)

This can be econometrically express as

$$\boldsymbol{ROA_{it} = \beta_0 + \beta_1 FORDIV_{it} + \beta_2 BUSDIV_{it} + \beta_3 PRODIV_{it} + \beta_4 YDIV_{it} + \varepsilon_{it}} \tag{3}$$

Where:

FORDIV = Foreign Diversification

BUSDIV = Business Diversification

PRODIV = Product Diversification

YDIV = Income Diversification

ROA = Return on Asset

β_0 = Intercept of the equation

β_1 - β_4 = Coefficients of the equation to be determined

ε_{it} = Error term

CHAPTER FOUR

PRESENTATION AND ANALYSIS OF DATA

4.1 Presentation of Data

The study assesses the impact of diversification strategies on the financial performance of selected non-financial quoted firms in Nigeria, taking into consideration one variant of performance measurement of Return on Assets (ROA). The explanatory variables adopted for this research study includes: the variable of Foreign Diversification (FORDIV), Business Subsidiary Diversification (BIZDIV) Product Diversification (PRODIV) and Income Diversification (YDIV). The study adopted the control variable of firm size (fsize). The data set span through the periods of 2007 – 2017. In identifying the possible impacts of diversification strategies on firm's financial performance, we conducted descriptive statistics, correlation matrix, data normality analysis, test for heteroscedasticity and a Panel Least Square Regression. However, some post estimation test of multicollinearity employing the Variance Inflation Factor Test (VIF), was equally conducted. The results are analyzed as follows: Table 4.1 below shows the mean (average), maximum, minimum, standard deviation, sum, variance standard error of the data set and provides some insight into the nature of the selected non-financial Nigerian quoted companies that have been selected for this research study.

4.1.2 Descriptive Statistics

The descriptive statistics is used to describe the basic features or characteristics of the data set in the study. It provides simple summaries about the sample and the measures. Together with simple analysis, they form the basis of virtually every quantitative analysis of data. From the table, {See table 4:1 (a) (b) and (c)} the mean value for the variable of return on asset (ROA) during the period under review is 12.0. This indicates that relatively, most of the sampled firms stayed positive in terms of firm asset during the period under analysis. The variable of ROA was highest in year 2007 (364.68) and was experienced by the Phama Deko Nig Plc under the pharmaceutical industry. However, the worse hit in terms of ROA was the food and Beverages industries where Cadbury Nig, Plc documented a negative return on asset to the tune of -2087.7. The statistics showed that some of the sampled firms suffered negative returns on asset during the period of study. These firms include: Capital Hotel (-66.22), Portland Paint Plc (-68.29), R.T. Briscoe Nig Plc (-3.99), Tantalizer Nig Plc (-8.43), Tiger Branded Plc (-10.38), Tourist Company of Nigeria (127.69), TransNation wide (-5.276) and Transcorp Nig. (-4.414).

The statistics also revealed that most of the sampled companies have at least one subsidiary either home or abroad. We find a mean subsidiary diversification of 1.75 during the period under review. From the analysis, Oando Nig. Plc had most subsidiaries within and outside numbering 19 during the period of analysis. This carefully reveals that among the quoted companies under consideration the oil and gas industry took the lead in business subsidiary diversification strategy.

Furthermore, the statistics showed that most of the companies have no subsidiary abroad. The statistics reveal that Oando Nig. Plc recorded 18 foreign subsidiaries during the period under investigation. This may be an indication that foreign diversification strategy may not have been profitable for other industries under review hence they tend to stay away from this particular strategy.

4.1.3 Pearson Correlation Statistics

Multicollinearity implies the existence of a linear relationship between two or more explanatory variables. Multicollinearity makes it difficult to differentiate the individual effects of the explanatory variables hence, the regression estimators may be biased in that they tend to have large variances (Murray, 2006). Furthermore, if there is a perfect linear relationship among the explanatory variables, the estimates for a regression model cannot be uniquely computed. The possible existence of multicollinearity is tested based on the correlation matrix incorporating all the independent variables. Pearson correlation matrices suggest that correlation coefficients must be less than 0.8; this is the limit or cut off correlation percentage commonly suggested by prior studies after which multicollinearity is likely to be present (Gujarati, 2003). Taking a cursory look at the table in table 4.2 below the result suggests that there is no need to worry about the consequences of multicollinearity. However, this association is further tested for confirmation with a more advanced technique of Variance Inflation Factor Test.

Table 4:2: Correlation Result

	ydiv	bizdiv	fordiv	fsize	prodiv	roa
ydiv	1.0000					
bizdiv	-0.0283	1.0000				
fordiv	0.0217	0.3936	1.0000			
fsize	0.1190	0.2223	0.2336	1.0000		
prodiv	0.0314	-0.1236	-0.1318	0.0423	1.0000	
roa	0.0983	-0.0009	0.0136	-0.0273	-0.0807	1.0000

Author's Computation 2018

According to Gujarati (2003), there is no consequence if the mean VIF is less than 10. Table 4:3 below presents the mean variance inflation factor (VIF) of the explanatory variables. The table shows that the mean VIF is 1.13. Therefore, the results obtained from the VIF test, indicate that there is no unacceptable level of multicollinearity among the independent variables of interest.

Table 4.3: Variance Inflation Factor (VIF)

Table 4:3 Variance Inflation Factor Result

Variable	VIF	1/VIF
bizdiv	1.26	0.792437
fordiv	1.25	0.799811
fsize	1.11	0.904000
prodiv	1.03	0.972480
ydiv	1.02	0.981447
Mean VIF	1.13	

Author's Computation 2018

The test for heteroscedasticity is employed to find out whether the variances of the errors from a regression are dependent on the values of the independent variables. In which case, heteroscedasticity is present. From the table below, we accept the alternative hypothesis of heteroscedasticity in the data set since the P>chi^2 is significant at 1%.

However, in correcting for the consequences of heteroscedasticity we resulted to the use of fixed and random effect regression analysis (Gujarati, 2003).

Table 4.4 Heteroscedasticity and Variance Inflation Factor Test Result

```
. estat hettest

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
         Ho: Constant variance
         Variables: fitted values of roa

         chi2(1)      =   278.04
         Prob > chi2  =   0.0000
```

Author's Computation 2018

4.1.4 Data Normality Test

In statistics, normality tests are used to determine if a data set is well-modeled by a normal distribution and to compute how likely it is for a random variable underlying the data set to be normally distributed. Here, the rule of thumb states that if the probability value of the variable of interest is significant at 1% or 5% then the variable is normally distributed otherwise not. However, the result in table 4:5 below of skewness, and kurtosis test for normality shows that all the variables of interest are normally distributed since they all pass at 1% significance level.

Table 4.5: Normality Test

```
. sktest ydiv bizdiv fordiv fsize prodiv roa

                    Skewness/Kurtosis tests for Normality
                                                      ------- joint ------
    Variable |    Obs   Pr(Skewness)   Pr(Kurtosis)  adj chi2(2)    Prob>chi2
-------------+-------------------------------------------------------------
        ydiv |    445      0.0000          0.0000          .          0.0000
      bizdiv |    445      0.0000          0.0000          .          0.0000
      fordiv |    445      0.0000          0.0000          .          0.0000
       fsize |    445      0.0000          0.0000          .          0.0000
      prodiv |    445      0.5554               .          .               .
         roa |    445      0.0000          0.0000          .          0.0000
```

Author's Computation 2018

4.1.5 Regression Analysis

To examine the cause-effect relationship between the dependent variables of return on asset (ROA) and the various independent variables of Foreign Diversification (FORDIV), Business Subsidiary Diversification (BIZDIV) Product Diversification (PRODIV) and Income Diversification, (YDIV), and the control variable of Size (FSIZE) as well as to test the formulated hypotheses, we employed a fixed and random effect regression analysis since the data had both time series (2007 to 2017) and cross-sectional properties of 41 quoted companies in Nigeria. The panel data regression results obtained is seperated into two models and the results are presented and discussed below.

4.2 Test of Hypotheses

In testing for the cause-effect relationship between the dependent and independent variables in the return on asset model, the two most widely used panel data regression estimation techniques (fixed effect and random effect) were adopted. The table below

presents the panel data estimation results (fixed effect and random effect). The results reveal difference in the magnitude of the coefficients, signs and the number of insignificant variables. The estimation of the fixed effect panel regression was based on the assumption of no correlation between the error term and explanatory variables, while that of the random effect, considers that the error term and explanatory variables are correlated. In selecting from the two panel regression estimation results, the Hausman test was conducted and the test is based on the null hypotheses that the random effect model is preferred to fixed effect model.

TABLE 4.6: Regression Result

```
. esttab, r2 ar2 beta p
------------------------------------------------------------
                              (FIXED)             (RANDOM)
                              EFFECT               EFFECT
------------------------------------------------------------
bizdiv                         -0.039              -0.012
                               (0.594)             (0.831)

fordiv                         -0.016               0.003
                               (0.831)             (0.961)

prodiv                         -0.117              -0.097
                               (0.058)             (0.063)

fsize                          -0.062              -0.038
                               (0.480)             (0.521)

ydiv                            0.058               0.087
                               (0.292)             (0.082)
------------------------------------------------------------
N                                445                 445
R-sq                                                0.212
adj. R-sq                                           0.199
HAUSMAN TEST                                        0.804
------------------------------------------------------------
Standardized beta coefficients; p-values in parentheses
* p<0.05, ** p<0.01, *** p<0.001
```

Author's Computation 2018

A critical look at the p-value of the Hausman test of return on asset model (ROA), (0.8041) implies that we should reject the fixed effect model based on the fact that the coefficient is insignificant even at 10% level and accept the random effect model. This implies that the accepted panel regression coefficients are good enough in drawing our conclusion and recommendations. It also suggests that the results of the random effect regression tend to be more appealing statistically when compared to the fixed effect results.

Following the above discussion, the random effect results of the return on asset model become imperative for interpretation. The F- statistics (6.79) and its corresponding p-value (0.000) show that return on asset random effect regression model is generally significant and well specified. It passes the overall significance test at 1% level.

From the table above, we observed an adjusted R-squared value of 0.199 which indicate that about 19% of the systematic variations in returns on asset have been jointly explained by the independent variables over the period under investigation. This implies that the independent variables adopted in this study have not been able to completely explain the variations in return on asset hence the remaining unexplained 81% variations lies in the error term.

In addition to the above, the specific findings from each explanatory variable from the random effect panel regression model are provided as followings:

Hypothesis 1: Foreign Diversification has no significant effect on corporate financial performance

The random panel effect model presented above show the variable of foreign diversification (FORDIV) (coef. 0.003, t= -0.05 and P >/t/ 0.961), Following the results above, it is revealed that the relationship between foreign diversification and return on asset among quoted non-financial companies in Nigeria is positive and statistically insignificant. Based on the result, the study accepts the null hypothesis thereby rejecting the alternative hypothesis. The study concludes that foreign diversification has no statistical effect on financial performance in Nigeria

Hypothesis 2: Business Subsidiary Diversification has no significant effect on corporate financial performance

The random panel effect model presented above show the variable of Business Subsidiary Diversification (BIZDIV) (coef. -0.012, t= -0.21 and P >/t/ 0.831), Following the results above, it is revealed that the relationship business subsidiary diversification and return on asset among listed non-financial companies in Nigeria is negative and statistically insignificant. Based on the result, the study accepts the null hypothesis thereby rejecting the alternative hypothesis. The study concludes that business subsidiary diversification has no statistical effect on financial performance in Nigeria.

Hypothesis 3: Product Diversification has no significant effect on corporate financial performance

The random panel effect model presented above show the variable of Product Diversification (PRODIV) (coeff. -0.097, t= -1.84 P >/t/0.063) the results above, revealed that the relationship between product diversification and return on asset among quoted non-financial companies in Nigeria is negative and statistically significant at 10%. Based on the result, the study accepts the alternative hypothesis thereby rejecting the null hypothesis. The study concludes that product diversification has a statistical effect on financial performance in Nigeria.

Hypothesis 4: Income diversification has no significant effect on corporate financial performance

The random panel effect model presented above show the variable of income diversification (YDIV) (coef. 0.087, t= 1.74 and P >/t/ 0.082) passed the statistical significance test at 10%. Following the results above, it is revealed that the relationship between firm income diversification and return on asset among quoted non-financial companies in Nigeria is positive and statistically significant. Based on the result, the study accepts the alternative hypothesis thereby rejecting the null hypothesis.

4.2.1 Analysis from the Control Variable

Firm size and Corporate Performance

The random panel effect model presented above show the variable of Firm size (FSIZE) (coef. -0.038, t= 0.064 and P >/t/ 0.521) failed the statistical significance test at 1%, 5%, and 10%. Following the results above, it is revealed that the relationship between firm size and return on asset among listed non-financial companies in Nigeria is negative but statistically insignificant. Based on the result, the study accepts the null hypothesis thereby rejecting the alternative hypothesis.

4.3 Discussion of Findings

The results obtained from the analysis of foreign diversification strategy disagree with the findings of Palich, Cardinal and Miller (2000) who found a U shape relationship between diversification and firm performance. Our finding also negates prior findings of Meador Ryan and Schellhor (2000), Cummins and Nini (2002), Doukas and Lang (2003), Pavic and Pervan (2010) and Luciana and Paulo (2014). However, our result lends credence to prior empirical studies of Mark (2001); Li and Greenwood (2004), Iqbal Hameed and Qadeer (2012); Onur and Ihsan (2016); Doukas and Kan (2006). Extant literature suggests that foreign diversification relationship is non-linear in nature and has three stages (S-shaped) (Contractor, 2007). This may account for the outcome of our result such that a non-linear model should be adopted. Furthermore, as noted by Aulakh, Kotabe & Teegen (2000), emerging-market firms appear to incur a greater proportion of

diversification costs as these firms are often plagued by issues relating to inferior product perception.

The variable of business subsidiary diversification is revealed to have an insignificant relationship with firm performance variable of return on asset. Anderson et al, (2002) asserts that the greater the strategic interdependency between subsidiary and parent, the more likely the subsidiary will be to receive support and resources from the parent to maintain high performance. Subsidiaries that play key strategic roles for their parents, e.g. as having regional, product or functional mandates, will have a direct claim to resources within the multinational company, whereas subsidiaries that are auxiliary portfolio investments have fewer opportunities of gaining additional resources from headquarters should a crises erupt (Porter, 1986; Birkinshaw et al, 2005; Subranmaniam & Watson 2006). A cursory look at the outcome from foreign subsidiary diversification strategy brings to bare the possible reason for the insignificant relationship observed from the connection between subsidiary diversification and return on asset.

A close look at the variable of product diversification is revealed to be significantly related to return on asset. This is a clear indication that divesting into other products yield satisfactory returns to investors. This result agrees with Wernerfelt, and Montgomery (2009) who posit that closely diversified firms performed better than broadly diversified firms. They concluded that there is a positive result and higher performance when diversification is focus. Hence we carefully say here that most of the non-financial quoted

companies in Nigeria are engaged in related diversification. Our result agrees with the result of Andrew Dean and Paul (2008), Elango et al (2008), McShane and Cox (2009) Cummins Weiss and Xie (2010) Ranka Vladimir and Dragan (2017) Kook Kim and Lee (2017).

The risk factor of diversification among quoted non-financial companies on the Nigerian stock exchange revealed that the perceived risk level of these firms is not sufficient to yield significant return on asset for investors. Berry-Stolzle et al (2012) finds that the extent of diversification is not driven by risk pooling considerations. Nevertheless, the recommendation of Chateauneuf and Lathnati (2007) that firms should adopt Dekel, quasi-concavity preference of functional probabilities which implies strong risk aversion may suffice.

Our findings agree with the findings of Yan et al (2009) and Dos Santos et al. (2008) who found evidence that US acquirer firms increase in value in the two years surrounding an acquisition activity. Also our finding bears a strong connection with the efficient view of corporate diversification which document that an important benefit associated with the decision to diversify is the reduction in the firm‘s operating risk because of mutual financial support among the different business units (coinsurance effect). Consistent with the coinsurance effect, a firm, especially if financially constrained, can increase its debt capacity by diversifying its business, thus reducing the magnitude of its financial constraint through this extra debt capacity (Kim & McConnell 1977).

Taking a look at the variable of product diversification (t = -1.84 with P = 0.063), we find a significantly negative relationship between Return on Asset and product diversification strategy of quoted non-financial firms in Nigeria. This finding agrees with the findings of Kim and Lee (2017) whose empirical findings suggest that corporate diversification reduces shareholders' wealth. However, consistent with the absorptive capacity viewpoint of organizational learning, they noted that diversification performance depends on repetitive and accumulative experiences that relate to a firm's prior diversification activity and/or a firm's experience in operating in multiple-business segments. Their findings suggest that, single-business firms that diversify once demonstrate significant value reduction. In contrast, multi-business firms that diversify once do not demonstrate value reduction, while single/multi-business firms that diversify multiple times demonstrate material value creation. However, our result does not lend credence to the findings of Yan et al (2009).

Control Variable

Furthermore, firm size was found to have a negative but insignificant impact on firm performance (t = -0.64 with P = 0.521). This result negates prior evidences that documents that larger firms do command economies of scale and diversification of investment which is indicative of higher investment returns compared to smaller firms. The outcome as obtained here however corroborates the findings of Zeitun and Tian (2007); Majundar and Chhibber (1999); Cheng and Tzeng (2011), Onaolapo and Kajola (2010); Zeitun (2009); Pratomo and Ismail (2007) and Khan (2012).

In extant research, foreign and business subsidiary diversification "has often remained separate from one another. Seldom have researchers looked at the twin issues of whether and how foreign and business subsidiary diversification interacted with one another" (Peng & Delios, 2006). Yet, foreign diversification and business subsidiary diversification often interact with each other to influence firm performance (Hitt et al., 1997). Thus, it is of importance to investigate them synchronously, especially their interaction (Delios & Beamish, 1999; Hitt et al., 1997).

Theoretically, the decision to diversify income sources is desirable for both efficiency and risk management. The joint production of a wide range of financial services should increase company efficiency. Thus, generally speaking, income diversification across non-financial services should enhance profitability. However, results from this study is consistent with the findings of Klein and Saidenberg (1997); When researchers consider risk, it is generally believed that diversification of income sources—that is, the shift from interest to non-interest income—should reduce total risk. Here, the idea is simple: since activities that generate non-interest income are thought of as uncorrelated, or, at least, imperfectly correlated, with those that produce interest income, diversification should stabilize operating income and give rise to a more stable stream of profits.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of Findings

In this study, we conducted descriptive statistics, correlation matrix, data normality test, variance inflation factor test, test for heteroscedasticity and the Hausman specification test.

1. Our results reveal that foreign diversification strategy has positive but insignificant influence on performance measure of Return on Asset.
2. The variable of business subsidiary diversification strategy showed negative and no significant relationship with performance variable of Return on Asset. Furthermore, product diversification strategy was observed to show negative but significant relationship to firm performance among quoted non-financial companies in Nigeria.
3. In the case of income diversification of the firms, our findings reveal that there is also a positive and significant relationship between income diversification and performance measure of Return on asset.
4. In the case of the control variable, we observed that firm size is negatively and insignificantly related to firm performance among our sampled companies in Nigeria. This study therefore made the following conclusion and recommendations;

5.2 Conclusion

This academic thesis has examined the relationship between some strategies of corporate diversification and firm performance drawing evidence from quoted non-financial companies in Nigeria. The strategies of corporate diversification used in the study are: foreign diversification, business subsidiary diversification, product diversification, and firm income diversification. The unique performance variable that we employed in this study is the adoption of Return on Asset. From the study we carefully conclude that foreign diversification and business subsidiary diversification does not meaningfully enhance firm performance as measured by Returned on Asset. But our finding revealed that income diversification and product diversification strategies are laudable strategies that could be very beneficial to quoted non-financial firms in Nigeria.

5.3 Recommendations

Drawing from the findings obtained from this study the researchers carefully recommend the following:

(a) Foreign Diversification: Employing the strategy of foreign diversification has not yielded significant performance result for quoted firms in Nigeria. Therefore, Managers and decision makers should employ fewer resources on this strategy.

(b) Business subsidiary diversification: This diversification strategy is very much less productive in terms of contributing to companies return on asset performance and firm market value addition. Company's Strategist and management decision should be channeled less toward this focus.

(c) Product Diversification: Based on our findings we encourage more emphasis on product diversification among quoted non-financial companies in Nigeria. In any case we recommend specialization strategy against multi product strategy.

(d) Income Diversification: An improved and calculated income diversification strategy is being encouraged in this study. Professional and risk assessment managers should be consulted regularly in a bid towards sustaining positive outcomes in the process of diversifying income. Recounting from the findings of this study we observe that a higher and well calculated diversified income improves assets of the firms.

5.4 Contribution to Knowledge

Much research efforts have been directed at examining the relationships between corporate diversification strategies and performance measures of return on asset. A unique contribution to knowledge is the adoption of the variables of income diversification strategy and business subsidiary diversification strategies in finding their relationship towards company performance. We also explored prior literatures to find that most of the related studies were carried in developed countries, hence our study has become one of the few to investigate the subject matter within the context of less developed societies and specifically Nigeria.

References

Acharya V. V., Iftekhar H., & Anthony S. (2002) "The Effects of Focus and Diversification on Bank Risk and Return: Evidence from Individual Bank Loan Portfolios." Mimeo, New Jersey Institute of Technology

Ade, O. (2012). Effects of Product – Market Diversification Strategy on Corporate Financial Performance and Growth: An Empirical Study of Some Companies in Nigeria. *American International Journal of Contemporary Research 2(3)*

Adesoye B. A., Adelowokan O. A., Maku E. O. & Salau S. O. (2018). Enhancing Agricultural Value Chain for Economic Diversification in Nigeria *African Journal of Economic Review, Volume VI, (I)* 103

Aggarwal R. & Sanwick A. A. (2003). Why do managers diversify their firms? Agency reconsidered. *The Journal of Finance*. http://dx.doi.org/10.1111/1540-6261.00519

Akewushola R. O., (2015). Performance Effectiveness of Related Product Market Diversification Strategy in Nigerian companies: information and communication technology as a virile tool. *Journal of Policy and Development Studies 9(2): 157-9385*

Akinsulire O. (2008). *Financial Management*, 5th Edition, Lagos, Ceemol Nigeria Limited

Amalendu B. (2010).Financial Performance of Indian Pharmaceutical Industry: A Case Study. *Asian Journal of Management Research,* ISSN 2229 –3795.

Amibud & Lev (1981). *The Modern Corporation and Private Property*, The Macmillan Company, New York.

Amiti M. & Davis D. R. (2012). Trade, firms, and wages: Theory and evidence. *The Review of Economic Studies,* 79 (1), 1–36

Anderson, A. E. S. (2002), All Guts, No Glory: Trading and Diversification Among online Investors, *European Financial Management* 13: 448-471.

Anderson Ulf, Mats Forsgren & Ulf Holm (2002). The strategic impact of external networks: Subsidiary performance and competence development in the MNC, *Management Journal Strat. Mgmt. J., 23: 979–996*

Andreou, P., Doukas, J., and Louca, C. (2010). Managerial overconfidence and the diversification discount puzzle. Working paper

Andreou, P. C. & Louca, C. (2015). Organizational Learning and Corporate Diversification Performance. *Journal of Business Research, 69 (6).*

Andrew, D. Dean, X. D &, Paul, W. B. (2008). Within-Country Product Diversification and Foreign Subsidiary Performance. *Journal of International Business Studies, 39. 706–724.*

Anil M. P. & Narendar V. R. (1998). Diversification and Firm Performance: An Empirical Evaluation*. Journal of Financial and Strategic Decisions.* 11(2).

Arawomo, D. F. Oyelade, A. O. & Tella, A. T., (2014). Determinants of Export Diversification in Nigeria: Any Special Role for Foreign Direct Investment (FDI)? *Journal of Economics and Business Research*, (2): 21-33

Aulakh P.S, Kotabe M., & Teegen, H. (2000). Export Strategies and Performance of Firms from Emerging Economies: Evidence from Brazil, Chile, and Mexico. *Academy of Management Journal* 43(3): 342–361.

Aulakh P., Kotabe M., & Teegan H. (2000b). *Corporate Profits and Cooptation: Networks of Market Constraints and Directorate Ties in the American Economy*, Academic Press, New York.

Ayobola, C., Ekundayo, M. & Muibi, S., (2018). Resource Endowment and Export Diversification: Implications for Growth in Nigeria. *Studies in Business and Economics*,13(1).

Bahr, K., & Maas, W. (2014). International Equity Returns: Absolute vs. Dollar Adjusted. *Journal of Accounting and Finance*, 14.

Balcilai, demirer & Hammoudeh (2015). A Generalized Index of Diversification: Trends in U.S. Manufacturing, *Review of Economics and Statistics* 73(2): 318-330.

Barkema, H.G, & Vermeulen, F. (1998). International Expansion Through start up or Acquisition: A Learning Perspective. *Academy of Management Journal* 41(1): 7 – 26.

Becker, L.C., DeFond, M.L., Jiambalvo, J., & Subramanyam, K.R. (1998). The Effect of Audit Quality on Earnings Management, *Contemporary Accounting Research* 15, 1-24.

Benjalux, S. J. (2006). An Empirical Study into Factors Influencing the use of Value Based Management Tools, Ph D, Thesis, Southern Cross University

Berger A. N., Cummins J. D., Weiss M. A. & Zi H. (2000). Conglomeration Versus Strategic Focus: Evidence from the Insurance Industry. *Journal of Financial Intermediation*, 9, 323–362.

Berger, P. G., & Ofek, E. (1995). Diversification's Effect on Firm Value, *Journal of Financial Economics*, 37, 39-65.

Berle A. & Means G. (1932), *The Modern Corporation and Private Property*, Harcourt, Brace and World Publication; New York

Bernini, M. Guillou, S. & Treibich, T. (2016). Firm Export Diversification and Labor Organization. Unpublished Work National Institute of Economic and Social Research – London.

Berry-Stolzle T. R., Liebenberg A. P., Ruhland J. S., & Sommer D. W. (2012). Determinants of Corporate Diversification: Evidence from the Property–Liability Insurance Industry. *The Journal of Risk and Insurance*, 79, 381–413.

Birkinshaw J., Neil H. & Stephen Y. (2005). Subsidiary Entrepreneurship, Internal and External Competitive Forces, and Subsidiary Performance, *International Business Review* 14 (2005) 227–248.

Bolton P. & Scharfstein D.S. (1990). A Theory of Predation Based on Agency Problems in Financial Contracting. *American Economic Review*, 80(1): 93-106.

Boyd J. H. & Graham S. L. (1988) "The Profitability and Risk Effects of Allowing Bank Holding Companies to Merge with Other Financial Firms: A Simulation Study." *Quarterly Review, Federal Reserve Bank of Minneapolis*, Vol. 12, No. 2, Spring, 3-20.

Boyd J. H., Graham S.L & Hewitt R. S. (1993) "Bank Holding Company Mergers with Non-Bank Financial Firms: Effects on the Risk of Failure." *Journal of Banking and Finance*, Vol.17, 43-63.

Bozec R., Dia M., & Bozec Y. (2010). Governance – Performance Relationship: A Re-Examination Using Technical Efficiency Measures. *British Journal of Management*, 21, 684–700.

Buckley & Casson, (1976). Corporate Diversification and Shareholder Value: A Survey of Recent Literature, *Journal of Corporate Finance*, vol.9: 37–57.

Caliendo & Rossi-Hansberg, E. (2012). The Impact of Trade on Organization and Productivity. *The Quarterly Journal of Economics, 127 (3), 1393–1467*.

Caroline, M., Ireen C., & Cleopas C. (2014), The Role of Export Diversification on Economic Growth in South Africa, *Mediterranean Journal of Social Sciences*, 5(9).

Caves R.E. (1971) International Corporations: The Industrial Economics of Foreign Investment, *Economica*, 38: 1-27

Caves R.E., Porter M.E., Spence A.M. & Scott J.T. (1980). *Competition in the Open Economy: A Model Applied to Canada,* Cambridge, Massachusetts, Harvard University Press.

Chang H.O., Timo S. & Alan M.R. (2015). Regional and Product Diversification and the Performance of Retail Multinationals, *Journal of International Management*, 10.1016/j.intman.2015.04.002, **21**, 3,

Chateauneuf, A. & Lakhnati, G. (2007). From Sure to Strong Diversification. *Economic Theory*, 32(3), 511-522.

Chen & Tzeng (2011). International Evidence on the Value of Corporate Diversification, *Journal of Finance, vol.54,39.*

Chen C. J., & Yu, C. M. (2011) Managerial Ownership, Diversification and Performance: Evidence from an Emerging Market. *International Business Review* 21(Issue 3), 518-534

Chia-wen & Heng-yih (2008) 'Corporate Structure and Equity Offerings: Are There Benefits to Diversification?', *Journal of Business*, vol.74, pp613–635.

Chia-wen & Heng-Yih (2008b). Dispersed and Focused Corporate Entrepreneurship: Ways to Balance Exploitation and Exploration in El-fring T. (Ed.) Corporate Entrepreneurship and Venturing. *International Studies in Entrepreneurship*. 10: 1-21.

Choi J. P. & Cowing T. G., (2002) "Diversification, Concentration and Economic Performance: Korean Business Groups", *Review of Industrial Organization*. Vol. 21, Issue 3, pp. 271-282

Collins, D. J., & Montgomery, C. A. (2005). *A Corporate Strategy: A Resource Based Approach*. New York, NY: Mc Graw-Hill

Collins, D. & Montgomery, C. (2008). The Cornerstones of Competitive Advantage: A Resource-Based View. *Strategic Management Journal*. 14 (March): 179-191.

Contractor, F. (2007). Is International Business Good for Companies? The Evolutionary or Multi-Stage Theory of Internationalization vs. The Transaction Cost Perspective. *Management International Review* 47 (3): 453–475.

Cummins J. D., Weiss M. A., Xie X. & Zi H. (2010). Economies of Scope in Financial Services: A DEA Efficiency Analysis of the US Insurance Industry. *Journal of Banking & Finance, 34*, 1525–1539.

Cummins, J. D., & Nini, G. (2002). Optimal Capital Utilization by Financial Firms: Evidence from the Property-Liability Insurance Industry. *Journal of Financial Services Research, 21*, 15–53.

Daley L., Mehrotra V. & Sivakumar, R., (1997). Corporate Focus and Value Creation: Evidence from Spinoffs. *Journal of Financial Economics* 45, 257–281.

Daud W., Salamudin, N. & Ahmad I. (2009). Corporate Diversification and Performance. *IBEJ*, 2, pp. 1-18.

Delios & Beamish (1999). *Corporate Strategy*. New York: McGraw-Hill

DeLong, G. L. (2001). Stockholder Gains from Focusing Versus Diversifying Bank Mergers. *Journal of Financial Economics*, 59, 221-252.

Demsetz H. & Villalonga B. (2001), 'Ownership structure and corporate performance', *Journal of Corporate Finance*, vol. 7, pp. 209–233.

Dimitrov. & Tice (2006). Corporate Diversification and Credit Constraints, Real Effects Across Business Cycle. *Review of Financial Studies*. http://dx.doi.org/10.1093/rfs/hhj028

Denis D., Denis D. & Yost K. (2002). Global Diversification, Industrial Diversification, and Firm Value *Journal of Finance* 6: 1951–1979.

DeYoung, R. & Karin P. R. (2001) "Product Mix and Earnings Volatility at Commercial Banks: Evidence from a Degree of Total Leverage Model." *Journal of Financial Intermediation*, Vol. 10, 54-84.

Dorcas. A. A. (2013). Predicting the Effects of Economic Diversification on Sustainable Tourism Development in Nigeria. *American Journal of Tourism Management* 2013, 2(1): 15-21

Dos-Santos M., Erranza V. & Miller D. P. (2008). Does Corporate Diversification Destroy Value? Evidence from Cross Border Mergers and Acquisitions. *Journal of Banking and Finance*. http://dx.doi.org/10.1016/j.jbankfin.2008.07.010

Doukas, J., & Kan, O. (2006). Does Diversification Destroy Firm Value? *Journal of Finance*.

Doukas, J.A. and Lang, H.P. (2003) 'Foreign Direct Investment, Diversification and Firm Performance', *Journal of International Business Studies*, 34(2).153-172.

Dunning J. H., & Sarianna M. L. (2008). *Multinational Enterprises and The Global Economy*. Edward Elgar Publishing

Ekwe M.C. & Duru A.N. (2012). Liquidity Management and Corporate Profitability in Nigeria *ESUT Journal of Accountancy* 3(1): 22 – 28.

Emekekwue, P.E. (2008). *Corporate Financial Management*. 5th Revised ed; Kinshasha: African Bureau of Educational Sciences

Enyim, O.B., Ewno, E. N. & Okoro, O. T. (2013). Banking Sector Credit and The Performance of the Agricultural Sector in Nigeria. *European Journal of Scientific Research*, 23(2), 35 –55.

Elango, B., Ma, Y. L., & Pope, N. (2008). An Investigation into the Diversification-Performance Relationship in the U.S. Property Liability Insurance Industry. *The Journal of Risk and Insurance, 75, 567–591*

Emms, E. E., & Kale, J. R. (2006). Efficiency Implications of Corporate Diversification: Evidence from Micro Data. Seatle University

Falope, O. & Ajilore, O.T. (2009). Working Capital Management and Corporate Profitability: Evidence from Panel Data Analysis of Selected Quoted Firms in Nigeria *Research Journal of Business Management* 3(3): 73 – 84.

Ganguli, S. K., & Agrawal, S. (2009). Ownership Structure and Firm Performance: An Empirical Study on Listed Mid-Cap Indian Companies.

Gary, S. (2005). Implementation Strategy and Performance Outcomes in Related Diversification. *Strategic Management Journal*.

Geringer J., Tallman S., & Olsen M. (2000). Product and International Diversification Among Japanese Multinational Firms. *Strategic Management Journal* 21(1): 51–80.

Ghoshal S. (1987). Global Strategy: An Organizing Framework. *Strategic Management Journal* 8(5): 425–441.

Godwin, E.E. & Ubong, U. (2015). Export Diversification and Economic Growth: Evidence from Nigeria, *Journal of Economics and Sustainable Development*, 6(16).

Grant R. (1987). Diversity, Diversification, and Profitability Among British Manufacturing Companies, 1972–84. *Academy of Management Journal* 31:771–801.

Grant, R. M. (1998). *Contemporary Strategies Analysis*. Oxford: Blackwell.

Gujarati, D. N. (2003). *Basic Econometrics* (3rd ed). New York: McGraw-Hill, Inc.

Hakrabati, G. (2007). Diversification and Performance: A study of Affiliated and Independent Firms. *Journal of Management Studies*, vol. 8 (1) pp 438-51.

Hansen & Mowen (2005) Diversification's Effect on Firm Value', *Journal of Financial Economics*, vol.37, 39–65.

Harker P. & Zenios S. A. (2000). Performance of Financial Institutions: Efficiency, Innovation, Regulation (Eds.), (pp. 175–199). Cambridge: Cambridge University Press.

Helpman E., Itskhoki O. & Redding S. (2010). Inequality and Unemployment in a Global Economy. *Econometrica,* 78 (4), 1239–1283.

Hitt M.A, Ireland R.D., & Hoskisson R.E. (2007). *Strategic Management: Competitiveness and Globalization* (7th edn). South-Western: Mason, OH

Hitt M., Hoskisson R. & Kim H. (2006); 'Corporate Diversification', *Journal of Economic Perspectives*, vol.8, pp163–178.

Hitt M. A, Hoskisson R, & Kim H. (1997). Effects on Innovation and Firm Performance in Product-Diversified Firms. *Academy of Management Journal* 40: 767–798.

Hoechle D., Schmid M., Walter I., & Yermarck, D. (2009). *How Much of the Diversification Discount can be Explained by Poor Corporate Governance?* SSRN Paper. *http://dx.doi.org/10.2139/ssrn.1341006*

Hoskisson. & Peng. (2005). Linking Theory and Context. *Strategy Research in Emerging Economies*. Innscor Annual Reports.

Horne, J. C. V. & Wachowicz, J.M. (2005) Fundamentals of Financial Management. Financial Times Prentice Hall, *Business & Economics* 712

Houston, J. F. & Ryngaert M. D. (1994) "The Overall Gains from Large Bank Mergers." *Journal of Banking and Finance, 18, 1155-1176.*

Humera K., Rohail H. & Maran M. (2017). Diversity on Corporate Boards and Firm Performance: An Empirical Evidence from Malaysia. *American Journal of Social Sciences and Humanities*; 2(1).

Hunger, D., & Wheelan, T. (1997). Strategic Management.Reading Massahustts: Addision Wesley.

Hymer, (1976) 'Do Conglomerate Firms Allocate Resources Inefficiently Across Industries?', *Journal of Finance*, vol.57: 721–767

Iqbal A., Hameed I., & Qadeer, M. (2012). Impact of Diversification on Firms' Performance. *American Journal of Scientific Research, 80, 42-53.*

Irean Y., Lee-Y. L., Chan S. & Rozaimah, Z. (2017). Gender Diversity and Firms' Financial Performance in Malaysia. Asian Academy *of* Management *Journal of Accounting and Finance 13(1)*

Jacquemin, A. P., &. Berry, C. H. (1979). Entropy Measure of Diversification and Corporate Growth. *The Journal of Industrial Economics*. Vol. 27(4). 359–369.

Jensen, M. (1986) 'Why Do Managers Diversify Their Firms? Agency Reconsidered', *Journal of Finance*, vol.58, 71–118

Jensen, M. (1989). Agency Costs of Free Cash Flow, Corporate Finance and Takeovers. .*American Economic Review* 76:323-329.

Jensen G., Johnson R. & Mercer J. (2002), "Tactical Asset Allocation and Commodity Futures: Ways to Improve Performance", *Journal of Portfolio Management,* Vol. 28 No.4,100-111

Jensen M.C., Meckling W.H. (1976), "Theory of the Firm: Managerial Behaviour, Agency Costs and Ownership Structure", *Journal of Financial Economics* (3), 305-360.

Johnson, G. & Scholes, K. (2002). *Exploring Corporate Strategy Text and Cases*. Edinburg: Pearson Education Press.

Johnson G., Scholes K., & Whittingtton. (2006). *Exploring Corporate Strategy* (7th ed.). New York, NY: Prentince Hall.

Kamwaro, E.K. (2008). The Impact of Investment Portfolio Choice on Financial Performance of Investment Companies in Kenya. Unpublished MBA thesis, University of Nairobi

Kapopoulos, P., & Lazaretou, S. (2007). Corporate Ownership Structure and Firm Performance: Evidence from Greek Firms. Corporate Governance, 15(2), 144–159.

Karaduman H. A., Akbas H.E, Caliskan A.O. & Durers (2011). The Relationship Between Working Capital Management and Profitability: Evidence from an Emerging Market. *International Research Journal of Finance and Economics* 62: 61 – 67.

Kareem, R. O., Bakare, H. A., Raheem, K. A., Olagumela, S. E., Alawode, O. O. & Ademoyewa, G. R. (2013). Analysis of Factors Influencing Agricultural Output in Nigeria: Macroeconomics Perspectives. *American Journal of Business, Economics and Management*, 1(1), 9-15.

Karimi, D.G.(2013). Relationship Between Investment Portfolio Choice and Profitability of Investment Companies Listed in the Nairobi Securities Exchange. Unpublished MBA thesis, Kenyatta University.

Karthik D., George R. & Singla C. (2015). International Diversification and Firm Performance: The Contingent Influence of Product Diversification. *Indian Institute of Management* Ahmedabad-380 015 INDIA

Katja, L. (2009). Assessing the Resources Usage Decisions and Financial Performance in Finnish Sawmills within the Resource-based view Framework, Faculty of Forest Sciences, Univwersity of Joesuu, Finland

Keith, J. G. (2013). Corporate Diversification, Value Maximization, and Organizational Capabilities. *The Journal of Business*, 74(3), 409-431.

Kerin & Rajan (1990). Firm-Specific Resources and Wealth Creation in High Technology Ventures: Evidence from Newly Public Biotechnology Firms. *Journal of Business Venturing*. 12: 31-46.

Khan (2012) Some Tests of Specification for Panel Data: Monte Carlo Evidence and an Application to Employment Equations. *Review of Economic Studies*. 58: 277-297.

Khanna & Krishna (1999). Market Segmentation: An Integrated Framework. *Long Range Planning*. 29(6): 797-811.

Kiker, D. S., & Banning, K. C., (2008) "How Important is Diversification? A Meta Analytic Review of the Diversification/ Firm Performance Relationship", *Southern Business & Economic Journal*, Vol. 31, Issue 1/2, 19-26

Kim, E. H. & McConnell, J. J. (1977). Corporate Mergers and the Co-Insurance of Corporate Debt. *Journal of Finance*, 32(2), 349-365.

Kim, K. & Lee (2017) Designs for Corporate Entrepreneurship. *California Management Review*. 26: 154-166.

Kim W.C., Hwang P., & Burgers W.P. (1993). Multinationals' Diversification and the Risk Return Trade-off. *Strategic Management Journal*, 14, 275-286.

Kipchoge, K.A. (2015). Effect of Corporate Attributes on International Financial Reporting Standards Disclosure Level. Evidence from Kenya Listed Firms. *Research Journal of Finance and Accounting*, 6(1): 97-107.

Kjersti-Gro L. (2003). Banks' Buffer Capital: How Important is Risk, *Journal of Financial Economics 93: 256-272.*

Klein, P.G. & Saidenberg, M.R. (1997). Diversification, Organization, and Efficiency: Evidence from Bank Holding Companies, SSRN *Electronic Journal* DO - 10.2139/ssrn.98653

Klein P. G., & Saidenberg, M. (1998) "Diversification, Organization, and Efficiency: Evidence from Bank Holding Companies," Working Paper, University of Georgia and Federal Reserve Bank of New York

Kogut B. & Singh H. (1988). The Effect of National Culture on the Choice of Entry Mode. *Journal of International Business Studies.* 19(3): 411-432

Kostova T, & Zaheer S. (1999). Organizational Legitimacy Under Conditions of Complexity: The Case of the Multinational Enterprise. *Academy of Management Review* 24 (1): 64–81.

Kotler, P. (2003). A Framework for Marketing Management. *Retrieved May 3, 2018*, from /http:// wps.prenhall.com/WPS_CDA_Grade_Render.

Kotler, P. (2008). A Framework for Marketing Management. *Retrieved May 3, 2018*, from /http:// wps.prenhall.com/WPS_CDA_Grade_Render.

Kotler P., & Keller K. L. (2006). *Marketing management* (12th ed.). New Jersey Prentice-hall International, Inc.

Kotler P. & Armstrong G. (2008). *Marketing: An Introduction*. New Jersey. Prentice-Hall International, Inc.

Lang L. & Rane, S. (1994). Tobin's Q, Corporate Diversification, and Firm Performance." *The Journal of Political Economy* 102:1248-1280.

Lazaridis, I & Tryfonidis, D (2006). Relationship Between Working Capital Management and Profitability of Listed Companies in the Athens Stock Exchange *Journal of Financial Management and Analysis* 19(5): 26 – 35

Lebans, M. & Euske, K. (2006) 'Agency Problems, Equity Ownership, and Corporate Diversification', *Journal of Finance*, vol.52: 135–160.

Lei J., Zhang, K. & Jiang, L. (2013) Dynamics of Growth and Profitability in Banking, *Journal of Money, Credit and Banking*. 36: 1069-1090.

Levinthal D., & Wu B. (2010) Opportunity Costs and Non-Scale Free Capabilities: Profit Maximization, Corporate Scope and Profit Margins. *Strategic Management Journal* 31:780–801.

Liebenberg & Sommer (2008) 'Effect of Diversification on Capital Structure', *Accounting and Finance*, vol.49: 799–826

Li, S. X., & Greenwood, R. 2004. The Effect of Within-Industry Diversification on Firm Performance: Synergy Creation, Multimarket Contact and Market Structuration. *Strategic Management Journal, 25(12): 1131–1153.*

Lown, C. S., Carol L. O., Philip E. S. & Amir S. (2000) "The Changing Landscape of the Financial Service Industry: What Lies Ahead? *Economic Policy Review, Federal Reserve Bank of New York*, Vol. 6, No. 4, 39-54.

Luciana, J & Paulo, S.M. (2014). Trade and Synchronization in a Multi-Country Economy. *European Economic Review* available @ www.elsevier.com

Lu J. & Beamish P. W. (2004). International Diversification and Firm Performance: The S-Curve Hypothesis. *Academy of Management Journal* 47(4): 598–609.

Mackey, T. B. (2006). Essay on Corporate Diversification and Firm Value. the Ohio State University

Mahoney, J.T. & Pandian, J. R. (1992) The Resource-Based View Within the Conversation of Strategic Management. *Strategic Management Journal*, 13(5), 363-380

Majundar & Chhibber (1999). Instrumental Variables and GMM: Estimation and Testing. *The Stata Journal* 3 (1).

Makhoha A., Namusonge G.S. & Sakwa M. (2016). Effect of Portfolio Diversification on Commercial Banks Financial Performance in Kenya. *International Journal of Business and Management Invention.*

Maksmovic & Phillip (2007) The Effect of Diversification on Firm Performance. Melbourne Institute Working Paper Series wp2001n02. Melbourne Institute of Applied Economic and Social Research, The University of Melbourne

Manyuru A., Wachira M. & Amata E. (2017). The Impact of Corporate Diversification on Firm Value in Kenya. *African Journal of Business Management*. 11(11): 241-249, DOI: 10.5897/AJBM2017.8275

Mark, R. H. (2001). The Effect of Diversification on Firm Performance. Unpublished text Melbourne Institute of Applied Economic and Social Research. The University of Melbourne

Mashiri, E. & Sebele, F. (2014). Diversification as a Corporate Strategy and Its Effect on Firm Performance: A Study of Zimbabwean Listed Conglomerates in the Food and Beverages Sector. *International Journal of Economics and Finance*; 6(5)

Masulis R., Wang C., & Xie F. (2007). Corporate Governance and Acquirer Returns. *The Journal of Finance*. http://dx.doi.org/10.1111/j.1540-6261.2007.01259.x

Maurizio, L. R., Tiziana L. R. F. & Javier, S. V. (2018). Multi-business Firms and Performance in Italy. What Role does Relatedness Play? *European Research on Management and Business Economics* 24 (2018) 63–70

McCutcheon, B. J. (1991). What Caused Conglomerate Formation? An Examination of Managerial Behavior and Internal Capital Markets in the 1960s Conglomerates (unpublished doctoral dissertation). University of Chicago, US.

McShane M. K., & Cox L. A. (2009) Issuance Decisions and Strategic Focus: The Case of Long-Term Care Insurance. *Journal of Risk and Insurance, 76, 87–108.*

Meador J. W., Ryan H. E. & Schellhorn C. (2000). Product Focus Versus Diversification: Estimates of X-Efficiency for the US Life Insurance Industry. Working paper, Wharton Financial Institutions Center University of Pennsylvania.

Meric I., Gishlick H., Taga L. & Meric G. (2011). Risks, Returns, and Portfolio Diversification Benefits of Country Index Funds in Bear and Bull Markets. *Business and Economics Journal,* 2 (1): 1-1.

Metcalf, R. W. & Titard P. L. (1976). *Principles of Accounting*, W. B. Saunders, Philadelphia

Michele S. & Tania E. (2016) Related Diversification, Core Competencies and Corporate Performance. *Strategic Management Journal*. Summer Special, (15): 149-165.

Milne, A. & Whalley, E. (2001). Bank Capital Regulation and Incentives for Risk-Taking. Discussion paper, City University Business School, London, UK

Montgomery, C.A. (1985). Product-Market Diversification and Market Power, *Academy of Management Journal,* Vol. 28: 789 – 798.

Montgomery C. A. & Wernerfelt B. (1988). Diversification, Ricardian Rents, and Tobin's Q. *RAND Journal of Economics*, vol. 19, issue 4, 623-632

Montgomery C. A. & Wernerfelt B. (2009), Diversification Ricardian Rents and Tobin's Q.

Morck R, Shleifer A, & Vishny R. (1988). Management, Ownership and Market Valuation. *Journal of Financial Economics* 20: 293–315.

Msoo A. A. & Goodness C. A. (2014) Diversification and Farm Household Welfare in Makurdi, Benue State, Nigeria, *Development Studies Research*. An Open Access Journal, 1:1, 168-175, DOI: 10.1080/21665095.2014.919232.

Mulwa, J. M. & Kosgei, D. (2016). Commercial Bank Diversification and Financial Performance: The Moderating Role of Risk. *Journal of Finance and Investment Analysis*, 5(2)

Murphy, K, J. (1985). Corporate Performance and Managerial Remuneration: An Empirical Analysis. *Journal of Accounting and Economics*, Vol 7: 11- 42

Murray (2006) *The Visible Hand: The Managerial Revolution in American Business*. Cambridge, MA: Harvard University Press.

Musembi, M. M. & Jagongo, A. (2017). The Impact of Portfolio Diversification on Financial Performance of Investment Firms Listed in Nairobi Securities Exchange, Kenya: Empirical Review. *International Journal of Management and Commerce Innovations* 5(2): (177-187)

Muttaka, M. (2015). The Intrigues of Nigeria's Diversification Strategy, (online) available @http://www.dailytrust.com.ng/daily/business/43325-the-intrigues-of-nigeria-s-diversification-strategy.

Nasiru A., Ibrahim K. Z., Yahya, M. B., & Aliyu, M. I., (2011). Evaluating the Impact of Product Diversification on Financial Performance of Selected Nigerian Construction Firms. *Journal of Construction in Developing Countries, Vol. 16(2), 91–114*

Nuryanah, S., & Islam, S. M. N. (2011). Corporate Governance and Performance: Evidence from an Emerging Market. *Malaysian Accounting Review*, 10(1), 17–42.

Nwankwo, O. (2013). Agricultural Financing in Nigeria: An Empirical Study of Nigerian Agricultural Co-operative and Rural Development Bank (NACRDB): 1990 – 2010. *Journal of Management Research*, 5(2), 28 – 44.

Obilor, S. I. (2013). The Impact of Commercial Banks' Credit to Agriculture on Agricultural development in Nigeria: An econometric analysis. *International Journal of Business Humanities and Technology*, 3(1), 85 – 95.

Odeleye, A. T. & Olunkwa, N.C. (2016). Export Diversification and Economic Growth in Nigeria.

Odhiambo, J. (2013*).* Portfolio Diversification and Financial Performance of Deposit Taking Savings and Credit Co-operative Societies in Kenya. Unpublished MBA thesis, University of Nairobi.

Ogbonna, I. C. (2018). Private Sector Development and Economic Diversification: Evidence from Nigeria. *Advances in Social Sciences Research Journal, 5(3)* 170-183.

Oladele, O. P. (2012) Strategies That Fit Emerging Markets. Harvard Business Review 83(6): 63-76.

Olaleye S. O., Edun F., & Taiwo S.B. (2013). Export Diversification and Economic Growth in Nigeria: An Empirical Test of Relationship Using a Granger Casualty Test. *Journal of Emerging Trends in Economics and Management Sciences* 5(1):70-79.

Onaolapo A.A. & Kajola, S. O. (2010) Capital Structure and Firm Performance: Evidence from Nigeria. European Journal of Economics, Finance, and Administrative Sciences, 25, 70-82.

Onodugo I. C., Benjamin A. A., & Nwuba B. N. (2015), Diversification of the economy: A panacea for Nigerian economic development. *International Journal of Multidisciplinary Research and Development.* 2(5).

Onodugo V.A., Ikpe M. & Anowor O.F. (2013). Non-Oil Export and Economic Growth in Nigeria: A Time Series Econometric Model, *International Journal of Business Management & Research*, 3 (2): 115-124.

Onur A, & Ihsan Y. (2015). Corporate Diversification and Firm Value During Economic Downturns. *The Quarterly Review of Economics and Finance*,55, 160-175.

Onur A. & Ihsan Y. (2016). The Relationship Between Diversification Strategy and Firm Performance in Developed and Emerging Economy Contexts: Evidence from Turkey, Italy and Netherlands. *Journal of Economic and Social Development* – 3(2).

Ojo O. (2009). Corporate Diversification and Firm Performance: An Empirical Study. *Current Economic Crisis Journal.*

Ozbas O., & Scharsfstein. (2010). Evidence on the Dark Side of Internal Capital Markets

Palich, L., Cardinal L. & Miller C. (2000), 'Curvilinearity in the Diversification-Performance Linkage: An Examination over three Decades of Research', *Strategic Management Journal, vol.21, 155–174.*

Patev P., Kanaryan N., & Lyroudi K. (2006). Stock Market Crises and Portfolio Diversification in Central and Eastern Europe. *Managerial Finance, 32(5), 415-432.*

Patrick, O. O. (2012). Product Diversification and Performance of Manufacturing Firms in Nigeria. *European Journal of Business and Management.* Vol.4, No 7

Pavic I., & Pervan M. (2010) Effects of Corporate Diversification on its Performance: The Case of Croatian Non-Life Insurance Industry *Ekonomska misao i praksa*, 19, 49–66

Peng & Delios (2006) Impacts of Diversification and Corporate Entrepreneurship Strategy Making On Growth and Profitability: A Normative Model, *Journal of Enterprising Culture (JEC)*, 14(01): 49-63.

Penrose, E.T. (1959). *The Theory of the Growth of the Firm*. John Wiley & Sons, Inc., New York, NY

Porter, M.E., (1986). Competition in Global Industries: A Conceptual Framework. In: Porter, M.E. (Ed.), Competition in Global Industries (pp. 15–60). Harvard Business School Press: Boston.

Pratomo & Ismail 2007 Conglomerate Growth and Profitability. In L. Garoian (ed.) Economics of Conglomerate Growth, 72-80. Corvallis, Oregon: Oregon State University.

Purkayastha S., Manolova T. S. & Edelman L.F., (2012). Diversification and Firm Performance in Developed and Emerging Market Context: A Review of Literature International Journal of Management Review 14, 18 -38

Qian S., Yung K. & Hamid R. (2012). Organizing for Firm Growth: The Interaction between Resource Accumulating and Organizing Processes. In Foss N. and Mahnke V. (Eds), 147-167.

Qiming Li, Wenhuan W., Yiping L., Ke C. and Xiaoguang Y. (2016). Diversification and Corporate Performance: Evidence from China's Listed Energy Companies. *Journal of Sustainability* Volume 8, Issue 10

Ranghuiam, Henri & Luigi (1999) 'Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers', *American Economic Review*, vol.76: 323–329.

Ranka K., Vladimir N. & Dragan S. (2017). Effects of Corporate Diversification on Firm Performance: Evidence from the Serbian Insurance Industry, *Economic Research-Ekonomska Istraživanja*, 30:1, 1224-1236

Rop K. M., Kibet D. R. & Bokongo J. (2016). Effect of Investment Diversification on the Financial Performance of Commercial Banks in Kenya. *Journal of business and management.* Vol. 18 issue 11: 102-115

Rose, P. S. (1989) "Diversification of the Banking Firm." *The Financial Review*, 24(2): 251- 280.

Rosen (1989). Encyclopedia of Public Administration and Public Policy

Ross S. A., Westerfield R. W. & Jaffe J. (2005). *Corporate Finance*, (Seventh Ed.), McGraw Hill, Printed in Singapore

Ruigrok W, Amann W, Wagner H. (2007). The Internationalization – Performance Relationship at Swiss Firms: A Test of the S-shape and Extreme Degrees of Internationalization. *Management International Review* 47(3): 349–368.

Rumelt R.P. (1974). Strategy, structure, and economic performance. Cambridge: Harvard University Press.

Rumelt R.P. (1977). Diversification Strategy and Profitability: *Strategic Management. Journal*. 3: 359 – 369.

Saloner, G. (1987). Predation, Mergers, and Incomplete Information. *The RAND Journal of Economics*, 18, 165–186.

Saman, M. & Omid S. (2012). *Competence, Governance, and Entrepreneurship: Advances in Economic Strategy Research*. Oxford University Press: Oxford, England.

Samtalo & Becerra (2008). Testing Oligopolistic Behavior. *International Journal of Industrial Organization* 2: 367–83.

Sánchez-ballesta, J. P., & García-meca, E. (2007). A Meta-Analytic Vision of the Effect of Ownership Structure on Firm Performance. *Corporate Governance*, 15(5), 879–894.

Sang H. K., Kim K. H. & Chulung L. (2017). Dynamic Technological Diversification and Its Impact on Firms' Performance: An Empirical Analysis of Korean IT Firms. *Sustainability*, 9 (7),1239

Santaló, J. & Becerra, M. (2004), The Effect of Diversification on Performance Revisited: Diversification Discount, Premium, or Both? Instituto de Empresa Business School Working Paper No. WP04-36. Available at SSRN: https://ssrn.com/abstract=1019980

Santalo, J. & Becerra, M. (2008). Competition from Specialized Firms and The Diversification Performance Linkage, *Journal of Finance*, 63 (2):851 – 883

Santomero, A. W. & Chung E. (1992) "Evidence in Support of Broader Banking Powers." *Financial Markets, Institutions, and Instruments*, 1(1), 1-69.

Saunders, A. & Walters I. (1994) *Universal Banking in the United States: What Could We Gain? What Could We Lose?* New York, NY: Oxford University Press.

Scherer, F.M. (1980), Industrial Market Structure and Economic Performance. Chicago: Rand McNally

Schumacher, S. & Boland, M. (2004). Diversification and Firm Performance in the Food Economy. Selected paper prepared for the Western Agricultural Economics Association Annual Meeting, Honolulu, Hawaii,

Shan, Y. G., & McIver, R. P. (2011). Corporate Governance Mechanisms and Financial Performance in China: Panel Data Evidence on Listed Non-Financial Companies. *Asia Pacific Business Review*, 17(3), 301–324.

Shleifer, A & Vishny, R (1989) 'Management Entrenchment', *Journal of Financial Economics*, vol.25, pp123–139.

Shoaib N., Peng K. Susheng W. & Badar N. A. (2018). The Impact of Revenue Diversification on Bank Profitability and Stability: Empirical Evidence from South Asian Countries. *International Journal of Financial Studies*

Shubik, M. (1959). Strategy and Market Structure: Competition, Oligopoly and The Theory of Games. New York; John Wiley & Sons

Shyu, J. & Chen, Y. (2009). Diversification, Performance, and the Corporate Life Cycle. *Emerging Markets Finance & Trade*. 45-6:57–68.

Singh, J. P. & Pandey, S. (2008). Impact of Working Capital Management in the Profitability of Hindalco Industries Limited. *The IUP Journal of financial Economics* 6(4): 62 – 72.

Singla, C. & George, R. (2013). Internationalization and Performance: A Contextual Analysis of Indian Firms. *Journal of Business Research* 66: 2500-2506.

Sobel, R. (1984). The Rise and Fall of the Conglomerate Kings. New York: Stein and Day.

Somnath L. & Saptarshi P. (2015). Impact of Industry Sector on Corporate Diversification and Firm Performance: Evidence from Indian Business Groups. *Canadian Journal of Administrative Sciences, Revue Canadienne des sciences de l'administration* 34: 77–88 (2017)

Stern, I., & Henderson, A. D. (2004). Within-Business Diversification in Technology-Intensive Industries. *Strategic Management Journal*, 25(5): 487–505.

Stowe, J. & Xing, X. (2006): 'Can Growth Opportunities Explain the Diversification Discount?'. *Journal of Corporate Finance*, 12(4):783 –796.

Stricklaw & Thompson (2003); 'Corporate Financing and Investment Decisions When Firms have Information that Investors Do Not Have', *Journal of Financial Economics*, vol.13: 187–221.

Stulz, R.M. (2007). Managerial Discretion and Optimal Financing Policies." *Journal of Financial Economics* 26(1990):3-27.

Stulz M., Karolyi G.A. & Craig D. (2007). Why Do Countries Matter So Much For Corporate Governance? *Journal of Financial Economics* 86 (2007) 1–39

Subranmaniam & Watson (2006) *Introduction to Econometrics*. Pearson/ Addison Wesley, Boston.

Teece, D. J., (1980) "Economics of Scope and the Scope of the Enterprise," *Journal of Economic Behavior and Organization*, 1, 223–47.

Teece, D. J., (1982) "Towards an Economic Theory of the Multiproduct Firm," Journal of Economic Behavior and Organization, 3, 39–63

Templeton, W. K. & Jacobus T. S. (1992) "The Effect of Nonbank Diversification on Bank Holding Companies." *Quarterly Journal of Business and Economics*, 31(4), Autumn 3-16.

Thomas, D. E. (2006). International Diversification and Firm Performance in Mexican Firms. Is It a Curvilinear Relationship? *Journal of Business Research*. http://dx.doi.org/10.1016/j.jbusres.2005.08.008.

Thompson A. J., Gamble A. A., & Strickland J. (2006). *Crafting and Executing Strategy*. The Quest for competitive advantage, Concepts and Cases.

Tongli, L., Ping, E. J., & Chiu, W. K. (2005). International Diversification and Performance: Evidence from Singapore. *Asia Pacific Journal of Management*. http://dx.doi.org/10.1007/s10490-005-6418-4

Turner, I. (2005). Diversification: When and When Not to? The Bay Brooke Press

Udih M. (2014). Bank Credit and Agricultural Development: Does it Promote Entrepreneurship Performance? *International Journal of Business and Social Science*, 5 (11), 102-107.

Uma K. E., Eboh F. E., & Obidike P. C. (2013). Appraisal of the Influence of Agriculture on Economic Growth: Empirical Evidence from Nigeria. *IOSR Journal of Economics and Finance, 1*(1), 73-79.

Vachani, S. (1991). Distinguishing Between Related and Unrelated International Geographic Diversification: A Comprehensive Measure of Global Diversification. *Journal of International Business Studies, 22(2): 307–322.*

Verhoogen, E. A. (2008). Trade, Quality Upgrading, and Wage Inequality in the Mexican Manufacturing Sector. *The Quarterly Journal of Economics, 123, 489–530.*

Villalonga, B. (2004). Does Diversification Cause "The Diversification Discount?" *Financial Management Journal*.

Wahla K. U. R., Shah S. Z. A. & Hussain, Z. (2012). Impact of Ownership Structure on Firm Performance Evidence from Non-Financial Listed Companies at Karachi Stock Exchange. *International Research Journal of Finance and Economics, 84, 6–13.*

Wei-Hwa B.R., Wei-Chun, & Tsung N.H. (2010) Frontier Market Transaction Costs and Diversification. *Journal of Finance.*, 24, 1–24

Wenerfelt & Montgomery (2009) Towards Integration: Understanding Entrepreneurship Through Frameworks. Entrepreneurship and Innovation: 35-49.

Wiersema, M.F. & Bowen, H.P. (2011). The Relationship Between International Diversification and Firm Performance: Why it Remains a Puzzle. *Global Strategy Journal 1: 152–170.*

Yan, A., Yang, Z., and Jiao, J. (2010). Conglomerate Investment Under Various Capital Market Conditions. *Journal of Banking and Finance*, 34(1):103 – 115.

Yan A. N., Yang Z., & Jiaco J. (2009). Conglomerate Investment Under Various capital markets.

Yeaple, S. R. (2005). A Simple Model of Firm Heterogeneity. *Journal of International Economics, 65, 1–20.*

Zeitun, R. (2009). *Innovation and Industry Evolution.* MIT Press Cambridge, MA Bain J. S, Industrial Organization, John Wiley & sons

Zeitun, R. & Tian, G. (2007). Corporate Entrepreneurship and Strategic Management: Insights from a Process Study. *Management Science*,

Zhou, X. & Elder T. (2001). "Understanding the Determinants of Managerial Ownership and the Link between Ownership and Performance: Comment", *Journal of Financial Economics*, Vol. 62, pp 559 – 612.

Appendix I: Data for the Study

Start Year	Company	CROID	COUNTRY	INDUSTRY	YDIV	BIZDIV	FORDIV	FSIZE	PRODIV	ROA
2007	7Up Nigeria	1.00	Ngse	Food and Beverage	1.0	0.0	0.0	7.3	1.0	19.4
2008	7Up Nigeria	1.00	Ngse	Food and Beverage	0.0	0.0	0.0	7.4	1.0	22.3
2009	7Up Nigeria	1.00	Ngse	Food and Beverage	1.0	0.0	0.0	7.5	1.0	19.2
2010	7Up Nigeria	1.00	Ngse	Food and Beverage	1.0	0.0	0.0	7.5	1.0	21.1
2011	7Up Nigeria	1.00	Ngse	Food and Beverage	1.0	0.0	0.0	7.6	1.0	26.6
2012	7Up Nigeria	1.00	Ngse	Food and Beverage	1.0	0.0	0.0	7.6	1.0	20.3
2013	7Up Nigeria	1.00	Ngse	Food and Beverage	0.0	0.0	1.0	7.7	1.0	21.8
2014	7Up Nigeria	1.00	Ngse	Food and Beverage	0.0	0.0	11.0	7.7	1.0	21.4
2015	7Up Nigeria	1.00	Ngse	Food and Beverage	0.0	0.0	1.0	7.8	0.0	21.0
2016	7Up Nigeria	1.00	Ngse	Food and Beverage	0.0	0.0	0.0	7.8	0.0	20.6
2017	7Up Nigeria	1.00	Ngse	Food and Beverage	0.0	1.0	1.0	7.1	0.0	21.0
2007	A.G.Leventis Nig	2.00	Ngse	Diversified	1.0	8.0	0.0	7.0	0.0	10.0
2008	A.G.Leventis Nig	2.00	Ngse	Diversified	1.0	7.0	0.0	7.1	0.0	13.0
2009	A.G.Leventis Nig	2.00	Ngse	Diversified	1.0	8.0	0.0	7.2	0.0	12.0
2010	A.G.Leventis Nig	2.00	Ngse	Diversified	1.0	8.0	0.0	7.3	0.0	6.9
2011	A.G.Leventis Nig	2.00	Ngse	Diversified	1.0	8.0	0.0	7.3	0.0	3.2
2012	A.G.Leventis Nig	2.00	Ngse	Diversified	1.0	4.0	0.0	7.4	0.0	2.8
2013	A.G.Leventis Nig	2.00	Ngse	Diversified	1.0	8.0	0.0	7.3	0.0	0.2
2014	A.G.Leventis Nig	2.00	Ngse	Diversified	0.0	8.0	0.0	7.4	1.0	-1.9
2015	A.G.Leventis Nig	2.00	Ngse	Diversified	0.0	8.0	0.0	7.4	1.0	-4.0
2016	A.G.Leventis Nig	2.00	Ngse	Diversified	0.0	7.0	0.0	7.3	1.0	-6.1
2017	A.G.Leventis Nig	2.00	Ngse	Diversified	0.0	7.0	0.0	9.0	1.0	-8.1
2007	Academy	3.00	Ngse	Printing	0.0	2.0	0.0	6.0	0.0	20.5
2008	Academy	3.00	Ngse	Printing	0.0	2.0	0.0	6.1	0.0	13.7
2009	Academy	3.00	Ngse	Printing	0.0	2.0	0.0	6.2	0.0	20.2
2010	Academy	3.00	Ngse	Printing	0.0	2.0	0.0	6.3	0.0	28.2
2011	Academy	3.00	Ngse	Printing	0.0	2.0	0.0	6.4	0.0	13.9
2012	Academy	3.00	Ngse	Printing	0.0	2.0	0.0	6.5	1.0	13.4
2013	Academy	3.00	Ngse	Printing	0.0	2.0	0.0	6.6	1.0	3.7
2014	Academy	3.00	Ngse	Printing	0.0	2.0	0.0	6.6	1.0	-3.6
2015	Academy	3.00	Ngse	Printing	0.0	2.0	0.0	6.6	1.0	-11.0
2016	Academy	3.00	Ngse	Printing	0.0	2.0	0.0	6.6	0.0	-18.4
2017	Academy	3.00	Ngse	Printing	0.0	2.0	1.0	6.0	0.0	-25.8
2007	Air& Logistic Services	4.00	Ngse	Transport	1.0	0.0	0.0	6.5	0.0	26.4
2008	Air& Logistic Services	4.00	Ngse	Transport	1.0	2.0	0.0	6.5	0.0	8.4
2009	Air& Logistic Services	4.00	Ngse	Transport	1.0	2.0	0.0	6.4	1.0	12.6
2010	Air& Logistic Services	4.00	Ngse	Transport	1.0	2.0	0.0	6.3	1.0	15.3
2011	Air& Logistic Services	4.00	Ngse	Transport	1.0	2.0	0.0	6.4	1.0	13.5
2012	Air& Logistic Services	4.00	Ngse	Transport	1.0	3.0	0.0	6.5	1.0	22.5

2013	Air& Logistic Services	4.00	Ngse	Transport	1.0	3.0	0.0	6.8	1.0	24.3
2014	Air& Logistic Services	4.00	Ngse	Transport	1.0	3.0	0.0	6.7	0.0	27.9
2015	Air& Logistic Services	4.00	Ngse	Transport	0.0	3.0	0.0	6.6	0.0	31.5
2016	Air& Logistic Services	4.00	Ngse	Transport	0.0	2.0	0.0	6.5	0.0	35.1
2017	Air& Logistic Services	4.00	Ngse	Transport	0.0	2.0	0.0	6.5	0.0	38.7
2007	Aluminium Extrusion Indus	5.00	Ngse	Metal	0.0	0.0	0.0	5.6	1.0	60.0
2008	Aluminium Extrusion Indus	5.00	Ngse	Metal	0.0	0.0	0.0	5.8	1.0	45.3
2009	Aluminium Extrusion Indus	5.00	Ngse	Metal	0.0	0.0	0.0	5.8	1.0	33.0
2010	Aluminium Extrusion Indus	5.00	Ngse	Metal	0.0	0.0	0.0	5.9	0.0	20.4
2011	Aluminium Extrusion Indus	5.00	Ngse	Metal	0.0	0.0	0.0	6.1	0.0	8.2
2012	Aluminium Extrusion Indus	5.00	Ngse	Metal	0.0	0.0	0.0	6.2	0.0	4.8
2013	Aluminium Extrusion Indus	5.00	Ngse	Metal	0.0	0.0	0.0	6.2	0.0	-4.5
2014	Aluminium Extrusion Indus	5.00	Ngse	Metal	0.0	0.0	0.0	6.2	1.0	-12.3
2015	Aluminium Extrusion Indus	5.00	Ngse	Metal	0.0	0.0	0.0	6.3	1.0	-20.1
2016	Aluminium Extrusion Indus	5.00	Ngse	Metal	0.0	0.0	0.0	6.6	1.0	-27.9
2017	Aluminium Extrusion Indus	5.00	Ngse	Metal	0.0	0.0	0.0	6.6	1.0	-36.3
2007	Associated Bus Company	6.00	Ngse	Transport	0.0	3.0	1.0	6.5	1.0	7.9
2008	Associated Bus Company	6.00	Ngse	Transport	0.0	3.0	1.0	6.6	1.0	9.1
2009	Associated Bus Company	6.00	Ngse	Transport	0.0	3.0	1.0	6.6	0.0	4.9
2010	Associated Bus Company	6.00	Ngse	Transport	0.0	3.0	1.0	6.6	0.0	3.3
2011	Associated Bus Company	6.00	Ngse	Transport	0.0	3.0	1.0	6.7	0.0	3.7
2012	Associated Bus Company	6.00	Ngse	Transport	0.0	3.0	1.0	6.7	0.0	14.8
2013	Associated Bus Company	6.00	Ngse	Transport	0.0	4.0	1.0	0.9	0.0	18.7
2014	Associated Bus Company	6.00	Ngse	Transport	0.0	3.0	1.0	0.8	0.0	24.5
2015	Associated Bus Company	6.00	Ngse	Transport	0.0	4.0	1.0	0.8	0.0	30.2
2016	Associated Bus Company	6.00	Ngse	Transport	0.0	3.0	1.0	0.8	0.0	36.0
2017	Associated Bus Company	6.00	Ngse	Transport	0.0	4.0	1.0	0.8	0.0	41.7
2007	Avon Crowncaps & Containers	7.00	Ngse	Packaging	0.0	0.0	0.0	6.6	0.0	11.4
2008	Avon Crowncaps & Containers	7.00	Ngse	Packaging	0.0	2.0	0.0	6.7	0.0	14.6
2009	Avon Crowncaps & Containers	7.00	Ngse	Packaging	0.0	2.0	0.0	6.8	0.0	12.7
2010	Avon Crowncaps & Containers	7.00	Ngse	Packaging	0.0	2.0	0.0	6.9	0.0	4.4
2011	Avon Crowncaps & Containers	7.00	Ngse	Packaging	0.0	2.0	0.0	6.9	0.0	5.2
2012	Avon Crowncaps & Containers	7.00	Ngse	Packaging	0.0	2.0	0.0	7.0	0.0	4.0
2013	Avon Crowncaps & Containers	7.00	Ngse	Packaging	0.0	2.0	0.0	7.0	0.0	4.2
2014	Avon Crowncaps & Containers	7.00	Ngse	Packaging	0.0	2.0	0.0	7.0	0.0	4.0
2015	Avon Crowncaps & Containers	7.00	Ngse	Packaging	0.0	1.0	0.0	7.0	0.0	3.8
2016	Avon Crowncaps & Containers	7.00	Ngse	Packaging	0.0	1.0	0.0	7.1	0.0	3.6
2017	Avon Crowncaps & Containers	7.00	Ngse	Packaging	0.0	1.0	0.0	7.0	0.0	3.4
2007	B.O.C Gases Nig	8.00	Ngse	Chemicals	0.0	0.0	0.0	6.2	0.0	31.4
2008	B.O.C Gases Nig	8.00	Ngse	Chemicals	0.0	0.0	0.0	6.3	0.0	29.0

2009	B.O.C Gases Nig	8.00	Ngse	Chemicals	0.0	0.0	0.0	6.3	0.0	27.4
2010	B.O.C Gases Nig	8.00	Ngse	Chemicals	0.0	0.0	0.0	6.3	0.0	30.4
2011	B.O.C Gases Nig	8.00	Ngse	Chemicals	0.0	0.0	0.0	6.4	0.0	24.9
2012	B.O.C Gases Nig	8.00	Ngse	Chemicals	0.0	0.0	0.0	6.4	0.0	18.5
2013	B.O.C Gases Nig	8.00	Ngse	Chemicals	0.0	0.0	0.0	6.4	0.0	12.8
2014	B.O.C Gases Nig	8.00	Ngse	Chemicals	0.0	0.0	0.0	6.5	0.0	6.8
2015	B.O.C Gases Nig	8.00	Ngse	Chemicals	0.0	0.0	0.0	6.5	0.0	0.9
2016	B.O.C Gases Nig	8.00	Ngse	Chemicals	0.0	0.0	0.0	6.5	0.0	-5.0
2017	B.O.C Gases Nig	8.00	Ngse	Chemicals	0.0	0.0	0.0	6.5	0.0	-11.0
2007	Berger Paints Nig	9.00	Ngse	Building Materials	0.0	0.0	0.0	6.6	0.0	10.4
2008	Berger Paints Nig	9.00	Ngse	Building Materials	0.0	0.0	0.0	6.3	0.0	12.2
2009	Berger Paints Nig	9.00	Ngse	Building Materials	0.0	0.0	0.0	6.4	0.0	14.4
2010	Berger Paints Nig	9.00	Ngse	Building Materials	0.0	0.0	0.0	6.4	0.0	26.4
2011	Berger Paints Nig	9.00	Ngse	Building Materials	0.0	0.0	0.0	6.4	0.0	13.2
2012	Berger Paints Nig	9.00	Ngse	Building Materials	0.0	0.0	0.0	6.5	1.0	10.8
2013	Berger Paints Nig	9.00	Ngse	Building Materials	0.0	0.0	0.0	6.5	1.0	1.2
2014	Berger Paints Nig	9.00	Ngse	Building Materials	1.0	0.0	0.0	6.5	1.0	-6.5
2015	Berger Paints Nig	9.00	Ngse	Building Materials	1.0	0.0	0.0	6.6	1.0	-14.3
2016	Berger Paints Nig	9.00	Ngse	Building Materials	1.0	0.0	0.0	6.6	1.0	-22.1
2017	Berger Paints Nig	9.00	Ngse	Building Materials	1.0	0.0	0.0	6.6	1.0	-29.8
2007	Beta Glass Company	10.00	Ngse	Packaging	1.0	0.0	0.0	6.6	1.0	14.1
2008	Beta Glass Company	10.00	Ngse	Packaging	1.0	0.0	0.0	7.1	1.0	16.4
2009	Beta Glass Company	10.00	Ngse	Packaging	0.0	0.0	0.0	7.1	1.0	16.2
2010	Beta Glass Company	10.00	Ngse	Packaging	0.0	0.0	0.0	7.2	1.0	15.0
2011	Beta Glass Company	10.00	Ngse	Packaging	1.0	0.0	0.0	7.3	1.0	15.7
2012	Beta Glass Company	10.00	Ngse	Packaging	1.0	0.0	0.0	7.4	1.0	10.7
2013	Beta Glass Company	10.00	Ngse	Packaging	0.0	0.0	0.0	7.4	1.0	9.4
2014	Beta Glass Company	10.00	Ngse	Packaging	0.0	0.0	0.0	7.4	1.0	7.3
2015	Beta Glass Company	10.00	Ngse	Packaging	0.0	0.0	0.0	7.4	1.0	5.1
2016	Beta Glass Company	10.00	Ngse	Packaging	0.0	0.0	0.0	7.4	1.0	2.9
2017	Beta Glass Company	10.00	Ngse	Packaging	0.0	0.0	0.0	7.4	1.0	0.8
2007	Cadbury Nig	11.00	Ngse	Food and Beverage	0.0	1.0	0.0	7.5	1.0	-2087.7
2008	Cadbury Nig	11.00	Ngse	Food and Beverage	0.0	1.0	0.0	7.4	1.0	85.4
2009	Cadbury Nig	11.00	Ngse	Food and Beverage	0.0	1.0	0.0	7.4	0.0	-9.8
2010	Cadbury Nig	11.00	Ngse	Food and Beverage	0.0	1.0	0.0	7.5	0.0	9.0
2011	Cadbury Nig	11.00	Ngse	Food and Beverage	0.0	0.0	0.0	7.5	0.0	22.1
2012	Cadbury Nig	11.00	Ngse	Food and Beverage	0.0	0.0	0.0	7.6	0.0	17.2
2013	Cadbury Nig	11.00	Ngse	Food and Beverage	1.0	1.0	0.0	7.6	0.0	24.3
2014	Cadbury Nig	11.00	Ngse	Food and Beverage	1.0	1.0	0.0	7.6	0.0	28.5
2015	Cadbury Nig	11.00	Ngse	Food and Beverage	1.0	1.0	0.0	7.5	0.0	32.6
2016	Cadbury Nig	11.00	Ngse	Food and Beverage	1.0	1.0	0.0	7.5	0.0	36.7
2017	Cadbury Nig	11.00	Ngse	Food and Beverage	1.0	1.0	0.0	7.3	0.0	40.8

2008	Capital Hotel	12.00	Ngse	Travel & Leisure	1.0	0.0	0.0	7.5	0.0	11.0
2009	Capital Hotel	12.00	Ngse	Travel & Leisure	0.0	0.0	0.0	6.7	1.0	26.8
2010	Capital Hotel	12.00	Ngse	Travel & Leisure	0.0	0.0	0.0	6.8	1.0	169.8
2011	Capital Hotel	12.00	Ngse	Travel & Leisure	1.0	0.0	0.0	6.8	1.0	15.3
2012	Capital Hotel	12.00	Ngse	Travel & Leisure	1.0	0.0	0.0	6.8	1.0	13.2
2013	Capital Hotel	12.00	Ngse	Travel & Leisure	0.0	1.0	0.0	7.0	1.0	-90.5
2014	Capital Hotel	12.00	Ngse	Travel & Leisure	0.0	1.0	0.0	6.9	1.0	-168.9
2015	Capital Hotel	12.00	Ngse	Travel & Leisure	0.0	1.0	0.0	6.9	1.0	-247.2
2016	Capital Hotel	12.00	Ngse	Travel & Leisure	0.0	1.0	0.0	6.8	1.0	-325.5
2017	Capital Hotel	12.00	Ngse	Travel & Leisure	0.0	1.0	0.0	6.8	1.0	-403.8
2007	Cement Comy Of Northern Nig	13.00	Ngse	Construction Materials	0.0	0.0	0.0	7.0	1.0	4.4
2008	Cement Comy Of Northern Nig	13.00	Ngse	Construction Materials	0.0	0.0	0.0	6.9	1.0	38.5
2009	Cement Comy Of Northern Nig	13.00	Ngse	Construction Materials	0.0	0.0	0.0	7.0	1.0	43.0
2010	Cement Comy Of Northern Nig	13.00	Ngse	Construction Materials	0.0	0.0	0.0	7.0	1.0	26.2
2011	Cement Comy Of Northern Nig	13.00	Ngse	Construction Materials	0.0	0.0	0.0	7.1	1.0	32.9
2012	Cement Comy Of Northern Nig	13.00	Ngse	Construction Materials	0.0	0.0	0.0	7.2	1.0	15.7
2013	Cement Comy Of Northern Nig	13.00	Ngse	Construction Materials	1.0	1.0	0.0	7.2	0.0	14.4
2014	Cement Comy Of Northern Nig	13.00	Ngse	Construction Materials	1.0	1.0	0.0	7.2	0.0	9.1
2015	Cement Comy Of Northern Nig	13.00	Ngse	Construction Materials	1.0	1.0	0.0	7.2	0.0	3.9
2016	Cement Comy Of Northern Nig	13.00	Ngse	Construction Materials	1.0	1.0	0.0	7.2	0.0	-1.4
2017	Cement Comy Of Northern Nig	13.00	Ngse	Construction Materials	1.0	1.0	0.0	7.0	0.0	-6.7
2008	Chams	14.00	Ngse	Technology	1.0	5.0	0.0	7.3	0.0	2.1
2009	Chams	14.00	Ngse	Technology	0.0	5.0	0.0	7.0	0.0	-39.9
2010	Chams	14.00	Ngse	Technology	0.0	5.0	0.0	6.9	1.0	-26.8
2011	Chams	14.00	Ngse	Technology	1.0	5.0	0.0	6.9	1.0	-30.8
2012	Chams	14.00	Ngse	Technology	1.0	3.0	0.0	6.9	1.0	1.9
2013	Chams	14.00	Ngse	Technology	0.0	4.0	0.0	6.8	1.0	10.2
2014	Chams	14.00	Ngse	Technology	0.0	4.0	0.0	6.9	1.0	24.6
2015	Chams	14.00	Ngse	Technology	0.0	2.0	0.0	7.1	1.0	39.0
2016	Chams	14.00	Ngse	Technology	0.0	3.0	0.0	7.0	1.0	53.4
2017	Chams	14.00	Ngse	Technology	0.0	2.0	0.0	7.1	1.0	67.8
2007	Chellarams	15.00	Ngse	Diversified	0.0	0.0	0.0	6.8	0.0	12.1
2008	Chellarams	15.00	Ngse	Diversified	0.0	0.0	0.0	6.9	0.0	9.7
2009	Chellarams	15.00	Ngse	Diversified	0.0	0.0	0.0	6.9	0.0	-17.0
2010	Chellarams	15.00	Ngse	Diversified	0.0	0.0	0.0	7.0	0.0	15.7
2011	Chellarams	15.00	Ngse	Diversified	0.0	0.0	0.0	7.0	0.0	20.9
2012	Chellarams	15.00	Ngse	Diversified	0.0	0.0	0.0	7.2	0.0	8.1
2013	Chellarams	15.00	Ngse	Diversified	1.0	0.0	0.0	7.3	1.0	7.3
2014	Chellarams	15.00	Ngse	Diversified	1.0	0.0	0.0	7.4	1.0	3.5
2015	Chellarams	15.00	Ngse	Diversified	1.0	0.0	0.0	7.4	1.0	-0.3

2016	Chellarams	15.00	Ngse	Diversified	1.0	0.0	0.0	7.5	1.0	-4.1
2017	Chellarams	15.00	Ngse	Diversified	1.0	0.0	0.0	7.6	1.0	-7.9
2007	Nestle Nig	16.00	Ngse	Food and Beverage	1.0	0.0	0.0	7.3	1.0	87.3
2008	Nestle Nig	16.00	Ngse	Food and Beverage	0.0	0.0	0.0	7.5	1.0	92.3
2009	Nestle Nig	16.00	Ngse	Food and Beverage	0.0	0.0	0.0	7.6	1.0	92.8
2010	Nestle Nig	16.00	Ngse	Food and Beverage	1.0	0.0	0.0	7.8	0.0	84.8
2011	Nestle Nig	16.00	Ngse	Food and Beverage	1.0	0.0	0.0	7.9	0.0	71.1
2012	Nestle Nig	16.00	Ngse	Food and Beverage	0.0	0.0	0.0	7.9	0.0	61.8
2013	Nestle Nig	16.00	Ngse	Food and Beverage	0.0	0.0	0.0	8.0	0.0	49.6
2014	Nestle Nig	16.00	Ngse	Food and Beverage	0.0	0.0	0.0	8.0	0.0	38.1
2015	Nestle Nig	16.00	Ngse	Food and Beverage	1.0	0.0	0.0	8.1	1.0	26.7
2016	Nestle Nig	16.00	Ngse	Food and Beverage	0.0	0.0	0.0	8.2	1.0	15.2
2017	Nestle Nig	16.00	Ngse	Food and Beverage	0.0	0.0	0.0	8.3	1.0	3.7
2007	Nigeria Breweries	17.00	Ngse	Food and Beverage	1.0	1.0	0.0	8.0	1.0	43.9
2008	Nigeria Breweries	17.00	Ngse	Food and Beverage	1.0	1.0	0.0	8.0	1.0	79.7
2009	Nigeria Breweries	17.00	Ngse	Food and Beverage	1.0	1.0	0.0	8.0	1.0	59.9
2010	Nigeria Breweries	17.00	Ngse	Food and Beverage	1.0	1.0	0.0	8.1	1.0	60.5
2011	Nigeria Breweries	17.00	Ngse	Food and Beverage	0.0	3.0	0.0	8.4	1.0	48.9
2012	Nigeria Breweries	17.00	Ngse	Food and Beverage	0.0	1.0	0.0	8.4	1.0	40.7
2013	Nigeria Breweries	17.00	Ngse	Food and Beverage	0.0	2.0	0.0	8.4	0.0	30.3
2014	Nigeria Breweries	17.00	Ngse	Food and Beverage	0.0	2.0	0.0	8.5	0.0	20.4
2015	Nigeria Breweries	17.00	Ngse	Food and Beverage	1.0	2.0	0.0	8.6	0.0	10.5
2016	Nigeria Breweries	17.00	Ngse	Food and Beverage	1.0	2.0	0.0	8.6	0.0	0.7
2017	Nigeria Breweries	17.00	Ngse	Food and Beverage	1.0	2.0	0.0	8.6	0.0	-9.2
2007	Nigerian Enamelware	18.00	Ngse	Household	1.0	0.0	0.0	6.1	0.0	17.2
2008	Nigerian Enamelware	18.00	Ngse	Household	1.0	0.0	0.0	6.2	0.0	13.6
2009	Nigerian Enamelware	18.00	Ngse	Household	1.0	0.0	0.0	6.0	1.0	36.5
2010	Nigerian Enamelware	18.00	Ngse	Household	1.0	0.0	0.0	6.2	1.0	31.9
2011	Nigerian Enamelware	18.00	Ngse	Household	1.0	0.0	0.0	6.0	1.0	29.6
2012	Nigerian Enamelware	18.00	Ngse	Household	0.0	0.0	0.0	6.3	1.0	24.5
2013	Nigerian Enamelware	18.00	Ngse	Household	0.0	0.0	0.0	6.3	1.0	21.3
2014	Nigerian Enamelware	18.00	Ngse	Household	0.0	1.0	0.0	6.5	1.0	17.6
2015	Nigerian Enamelware	18.00	Ngse	Household	0.0	0.0	0.0	6.7	1.0	13.9
2016	Nigerian Enamelware	18.00	Ngse	Household	0.0	0.0	8.0	6.7	1.0	10.2
2017	Nigerian Enamelware	18.00	Ngse	Household	0.0	0.0	0.0	6.8	1.0	6.4
2007	Oando	19.00	Ngse	Integrated	0.0	16.0	6.0	8.2	1.0	11.6
2008	Oando	19.00	Ngse	Integrated	0.0	0.0	0.0	8.5	0.0	18.6
2009	Oando	19.00	Ngse	Integrated	0.0	0.0	0.0	8.5	0.0	18.9
2010	Oando	19.00	Ngse	Integrated	0.0	13.0	11.0	8.5	0.0	15.1
2011	Oando	19.00	Ngse	Integrated	0.0	13.0	11.0	8.6	0.0	0.4
2012	Oando	19.00	Ngse	Integrated	0.0	19.0	15.0	8.7	0.0	10.2
2013	Oando	19.00	Ngse	Integrated	0.0	18.0	17.0	8.8	0.0	3.7
2014	Oando	19.00	Ngse	Integrated	0.0	12.0	6.0	8.9	0.0	1.3

2015	Oando	19.00	Ngse	Integrated	1.0	4.0	18.0	9.0	0.0	-1.2
2016	Oando	19.00	Ngse	Integrated	1.0	6.0	18.0	9.1	0.0	-3.6
2017	Oando	19.00	Ngse	Integrated	1.0	5.0	18.0	9.2	0.0	-6.0
2007	Okomu Oil Palm	20.00	Ngse	Plantation	1.0	0.0	0.0	6.8	0.0	4.4
2008	Okomu Oil Palm	20.00	Ngse	Plantation	1.0	0.0	0.0	6.9	0.0	28.2
2009	Okomu Oil Palm	20.00	Ngse	Plantation	0.0	0.0	0.0	6.9	0.0	12.6
2010	Okomu Oil Palm	20.00	Ngse	Plantation	1.0	0.0	0.0	6.9	1.0	27.8
2011	Okomu Oil Palm	20.00	Ngse	Plantation	1.0	0.0	0.0	7.4	1.0	20.6
2012	Okomu Oil Palm	20.00	Ngse	Plantation	1.0	0.0	0.0	7.5	1.0	14.1
2013	Okomu Oil Palm	20.00	Ngse	Plantation	1.0	0.0	0.0	7.4	1.0	7.1
2014	Okomu Oil Palm	20.00	Ngse	Plantation	0.0	0.0	0.0	7.3	1.0	0.3
2015	Okomu Oil Palm	20.00	Ngse	Plantation	0.0	0.0	0.0	7.5	1.0	-6.6
2016	Okomu Oil Palm	20.00	Ngse	Plantation	0.0	0.0	0.0	7.5	1.0	-13.5
2017	Okomu Oil Palm	20.00	Ngse	Plantation	0.0	0.0	0.0	7.6	1.0	-20.3
2007	Pharma-Deko	21.00	Ngse	Pharmacetical	0.0	0.0	0.0	6.2	1.0	364.7
2008	Pharma-Deko	21.00	Ngse	Pharmacetical	1.0	0.0	0.0	6.2	1.0	107.1
2009	Pharma-Deko	21.00	Ngse	Pharmacetical	1.0	0.0	0.0	6.1	1.0	71.4
2010	Pharma-Deko	21.00	Ngse	Pharmacetical	1.0	0.0	0.0	6.2	1.0	41.8
2011	Pharma-Deko	21.00	Ngse	Pharmacetical	1.0	0.0	0.0	6.4	1.0	-1.5
2012	Pharma-Deko	21.00	Ngse	Pharmacetical	1.0	0.0	0.0	6.4	1.0	78.5
2013	Pharma-Deko	21.00	Ngse	Pharmacetical	1.0	0.0	1.0	6.4	1.0	76.3
2014	Pharma-Deko	21.00	Ngse	Pharmacetical	1.0	0.0	1.0	6.5	1.0	94.7
2015	Pharma-Deko	21.00	Ngse	Pharmacetical	0.0	0.0	1.0	6.4	1.0	113.1
2016	Pharma-Deko	21.00	Ngse	Pharmacetical	0.0	0.0	1.0	6.4	1.0	131.4
2017	Pharma-Deko	21.00	Ngse	Pharmacetical	0.0	0.0	1.0	6.3	1.0	149.8
2009	Portland Paint Nig	22.00	Ngse	Building Materials	0.0	0.0	0.0	6.2	1.0	21.1
2010	Portland Paint Nig	22.00	Ngse	Building Materials	0.0	0.0	0.0	6.2	1.0	13.8
2011	Portland Paint Nig	22.00	Ngse	Building Materials	0.0	0.0	0.0	6.4	1.0	15.6
2012	Portland Paint Nig	22.00	Ngse	Building Materials	0.0	0.0	0.0	6.4	1.0	-29.4
2013	Portland Paint Nig	22.00	Ngse	Building Materials	0.0	1.0	0.0	6.3	1.0	-74.4
2014	Portland Paint Nig	22.00	Ngse	Building Materials	0.0	1.0	0.0	6.4	1.0	-119.3
2015	Portland Paint Nig	22.00	Ngse	Building Materials	0.0	1.0	0.0	6.3	1.0	-164.3
2016	Portland Paint Nig	22.00	Ngse	Building Materials	0.0	1.0	0.0	6.2	1.0	-209.3
2017	Portland Paint Nig	22.00	Ngse	Building Materials	0.0	1.0	0.0	6.0	1.0	-254.3
2007	Presco	23.00	Ngse	Plantation	0.0	0.0	0.0	6.7	1.0	1.9
2008	Presco	23.00	Ngse	Plantation	0.0	0.0	0.0	6.8	1.0	26.4
2009	Presco	23.00	Ngse	Plantation	0.0	0.0	0.0	6.9	1.0	9.1
2010	Presco	23.00	Ngse	Plantation	1.0	0.0	0.0	6.9	1.0	31.1
2011	Presco	23.00	Ngse	Plantation	1.0	0.0	0.0	7.4	1.0	38.3
2012	Presco	23.00	Ngse	Plantation	1.0	0.0	0.0	7.4	1.0	20.4
2013	Presco	23.00	Ngse	Plantation	0.0	1.0	0.0	7.9	0.0	19.2
2014	Presco	23.00	Ngse	Plantation	0.0	1.0	0.0	7.7	0.0	13.9
2015	Presco	23.00	Ngse	Plantation	0.0	1.0	0.0	7.5	0.0	8.5

2016	Presco	23.00	Ngse	Plantation	0.0	1.0	0.0	7.5	0.0	3.2
2017	Presco	23.00	Ngse	Plantation	0.0	1.0	9.0	7.4	0.0	-2.2
2007	Pz Cussons	24.00	Ngse	Household	0.0	0.0	0.0	7.7	0.0	12.5
2008	Pz Cussons	24.00	Ngse	Household	1.0	0.0	0.0	7.7	0.0	13.4
2009	Pz Cussons	24.00	Ngse	Household	1.0	0.0	0.0	7.7	0.0	15.0
2010	Pz Cussons	24.00	Ngse	Household	1.0	4.0	0.0	7.8	0.0	14.4
2011	Pz Cussons	24.00	Ngse	Household	1.0	4.0	0.0	7.8	0.0	13.8
2012	Pz Cussons	24.00	Ngse	Household	1.0	4.0	0.0	7.8	0.0	6.2
2013	Pz Cussons	24.00	Ngse	Household	0.0	4.0	1.0	7.9	0.0	3.3
2014	Pz Cussons	24.00	Ngse	Household	0.0	5.0	1.0	7.9	0.0	-0.9
2015	Pz Cussons	24.00	Ngse	Household	1.0	6.0	1.0	7.8	0.0	-5.0
2016	Pz Cussons	24.00	Ngse	Household	1.0	3.0	1.0	7.9	0.0	-9.1
2017	Pz Cussons	24.00	Ngse	Household	1.0	4.0	1.0	7.9	0.0	-13.2
2007	R.T Briscoe Nig	25.00	Ngse	Automobile	0.0	2.0	0.0	6.9	0.0	21.6
2008	R.T Briscoe Nig	25.00	Ngse	Automobile	0.0	0.0	0.0	7.0	0.0	19.5
2009	R.T Briscoe Nig	25.00	Ngse	Automobile	0.0	0.0	0.0	6.9	0.0	13.2
2010	R.T Briscoe Nig	25.00	Ngse	Automobile	0.0	1.0	0.0	7.0	0.0	4.4
2011	R.T Briscoe Nig	25.00	Ngse	Automobile	0.0	1.0	0.0	7.2	0.0	4.3
2012	R.T Briscoe Nig	25.00	Ngse	Automobile	0.0	6.0	0.0	7.1	0.0	-9.0
2013	R.T Briscoe Nig	25.00	Ngse	Automobile	0.0	7.0	0.0	7.3	0.0	-13.5
2014	R.T Briscoe Nig	25.00	Ngse	Automobile	0.0	6.0	0.0	7.4	1.0	-20.1
2015	R.T Briscoe Nig	25.00	Ngse	Automobile	0.0	6.0	0.0	7.5	1.0	-26.8
2016	R.T Briscoe Nig	25.00	Ngse	Automobile	0.0	6.0	0.0	7.5	1.0	-33.5
2017	R.T Briscoe Nig	25.00	Ngse	Automobile	0.0	6.0	0.0	7.6	1.0	-40.2
2007	Redstar Express	26.00	Ngse	Transport	0.0	3.0	0.0	6.1	1.0	14.7
2008	Redstar Express	26.00	Ngse	Transport	0.0	3.0	0.0	6.3	1.0	24.3
2009	Redstar Express	26.00	Ngse	Transport	0.0	3.0	0.0	6.4	1.0	19.4
2010	Redstar Express	26.00	Ngse	Transport	0.0	3.0	0.0	6.4	1.0	14.1
2011	Redstar Express	26.00	Ngse	Transport	1.0	3.0	0.0	6.4	1.0	21.4
2012	Redstar Express	26.00	Ngse	Transport	1.0	3.0	0.0	6.5	1.0	19.2
2013	Redstar Express	26.00	Ngse	Transport	1.0	3.0	0.0	6.6	1.0	23.3
2014	Redstar Express	26.00	Ngse	Transport	1.0	2.0	0.0	6.6	1.0	25.9
2015	Redstar Express	26.00	Ngse	Transport	1.0	3.0	0.0	6.5	1.0	28.4
2016	Redstar Express	26.00	Ngse	Transport	0.0	2.0	0.0	6.5	1.0	30.9
2017	Redstar Express	26.00	Ngse	Transport	0.0	3.0	0.0	6.4	1.0	33.5
2007	Scoa Nig	27.00	Ngse	Diversified	0.0	2.0	0.0	6.5	1.0	54.3
2008	Scoa Nig	27.00	Ngse	Diversified	1.0	2.0	0.0	6.6	1.0	14.1
2009	Scoa Nig	27.00	Ngse	Diversified	1.0	2.0	0.0	6.7	1.0	31.2
2010	Scoa Nig	27.00	Ngse	Diversified	0.0	2.0	0.0	6.7	1.0	8.8
2011	Scoa Nig	27.00	Ngse	Diversified	0.0	2.0	0.0	6.8	0.0	3.9
2012	Scoa Nig	27.00	Ngse	Diversified	0.0	2.0	0.0	6.8	1.0	2.3
2013	Scoa Nig	27.00	Ngse	Diversified	0.0	2.0	0.0	6.9	0.0	-1.6
2014	Scoa Nig	27.00	Ngse	Diversified	0.0	2.0	0.0	7.0	0.0	-4.9

2015	Scoa Nig	27.00	Ngse	Diversified	0.0	2.0	0.0	7.1	0.0	-8.2
2016	Scoa Nig	27.00	Ngse	Diversified	0.0	2.0	0.0	7.2	0.0	-11.5
2017	Scoa Nig	27.00	Ngse	Diversified	0.0	2.0	0.0	7.3	0.0	-14.7
2007	Studio Press Nig	28.00	Ngse	Printing	0.0	0.0	0.0	6.7	0.0	3.7
2008	Studio Press Nig	28.00	Ngse	Printing	0.0	0.0	0.0	6.8	0.0	-14.7
2009	Studio Press Nig	28.00	Ngse	Printing	0.0	0.0	0.0	6.9	0.0	19.2
2010	Studio Press Nig	28.00	Ngse	Printing	0.0	0.0	0.0	6.9	0.0	1.3
2011	Studio Press Nig	28.00	Ngse	Printing	0.0	0.0	0.0	6.9	0.0	0.2
2012	Studio Press Nig	28.00	Ngse	Printing	0.0	0.0	0.0	6.9	0.0	0.1
2013	Studio Press Nig	28.00	Ngse	Printing	0.0	0.0	1.0	7.0	0.0	-0.6
2014	Studio Press Nig	28.00	Ngse	Printing	0.0	0.0	1.0	7.0	1.0	-1.2
2015	Studio Press Nig	28.00	Ngse	Printing	0.0	0.0	1.0	7.0	1.0	-1.8
2016	Studio Press Nig	28.00	Ngse	Printing	0.0	0.0	1.0	7.0	1.0	-2.3
2017	Studio Press Nig	28.00	Ngse	Printing	0.0	0.0	1.0	6.9	1.0	-2.9
2008	Tantalizer	29.00	Ngse	Retail	1.0	0.0	0.0	6.7	1.0	8.1
2009	Tantalizer	29.00	Ngse	Retail	1.0	0.0	0.0	6.8	1.0	1.6
2010	Tantalizer	29.00	Ngse	Retail	0.0	0.0	0.0	6.8	1.0	1.6
2011	Tantalizer	29.00	Ngse	Retail	0.0	0.0	0.0	6.8	1.0	2.7
2012	Tantalizer	29.00	Ngse	Retail	0.0	0.0	0.0	6.8	1.0	-9.1
2013	Tantalizer	29.00	Ngse	Retail	0.0	0.0	1.0	6.8	1.0	-12.2
2014	Tantalizer	29.00	Ngse	Retail	0.0	0.0	1.0	6.8	1.0	-17.5
2015	Tantalizer	29.00	Ngse	Retail	0.0	0.0	1.0	6.8	1.0	-22.8
2016	Tantalizer	29.00	Ngse	Retail	0.0	0.0	1.0	6.8	1.0	-28.2
2017	Tantalizer	29.00	Ngse	Retail	0.0	0.0	1.0	6.8	1.0	-33.5
2008	Tiger Branded	30.00	Ngse	Food and Beverage	0.0	2.0	1.0	7.8	1.0	12.0
2009	Tiger Branded	30.00	Ngse	Food and Beverage	0.0	2.0	0.0	7.8	1.0	19.5
2010	Tiger Branded	30.00	Ngse	Food and Beverage	0.0	2.0	0.0	7.8	1.0	10.0
2011	Tiger Branded	30.00	Ngse	Food and Beverage	0.0	3.0	0.0	7.9	1.0	2.3
2012	Tiger Branded	30.00	Ngse	Food and Beverage	0.0	3.0	0.0	7.9	1.0	-8.9
2013	Tiger Branded	30.00	Ngse	Food and Beverage	0.0	3.0	0.0	7.8	1.0	-17.8
2014	Tiger Branded	30.00	Ngse	Food and Beverage	0.0	3.0	0.0	7.7	1.0	-27.3
2015	Tiger Branded	30.00	Ngse	Food and Beverage	0.0	3.0	0.0	7.7	1.0	-36.8
2016	Tiger Branded	30.00	Ngse	Food and Beverage	0.0	3.0	0.0	7.9	1.0	-46.3
2017	Tiger Branded	30.00	Ngse	Food and Beverage	0.0	3.0	0.0	7.9	1.0	-55.8
2007	Total Nigeria	31.00	Ngse	Downstream	0.0	0.0	0.0	7.6	1.0	51.4
2008	Total Nigeria	31.00	Ngse	Downstream	0.0	0.0	0.0	7.6	1.0	60.4
2009	Total Nigeria	31.00	Ngse	Downstream	0.0	0.0	0.0	7.7	1.0	56.8
2010	Total Nigeria	31.00	Ngse	Downstream	0.0	0.0	0.0	7.7	1.0	44.5
2011	Total Nigeria	31.00	Ngse	Downstream	0.0	0.0	0.0	7.8	1.0	38.0
2012	Total Nigeria	31.00	Ngse	Downstream	0.0	0.0	0.0	7.9	0.0	41.3
2013	Total Nigeria	31.00	Ngse	Downstream	0.0	0.0	0.0	8.1	0.0	38.1
2014	Total Nigeria	31.00	Ngse	Downstream	0.0	0.0	0.0	7.9	0.0	36.6
2015	Total Nigeria	31.00	Ngse	Downstream	0.0	0.0	0.0	8.0	0.0	35.0

2016	Total Nigeria	31.00	Ngse	Downstream	0.0	0.0	0.0	7.9	0.0	33.4
2017	Total Nigeria	31.00	Ngse	Downstream	0.0	0.0	0.0	7.9	0.0	31.8
2007	Tourist Company Of Nigeria	32.00	Ngse	Travel & Leisure	0.0	0.0	0.0	6.9	0.0	153.8
2008	Tourist Company Of Nigeria	32.00	Ngse	Travel & Leisure	0.0	0.0	0.0	7.0	0.0	-560.9
2009	Tourist Company Of Nigeria	32.00	Ngse	Travel & Leisure	0.0	0.0	0.0	7.1	1.0	121.8
2010	Tourist Company Of Nigeria	32.00	Ngse	Travel & Leisure	0.0	0.0	0.0	7.1	1.0	121.8
2011	Tourist Company Of Nigeria	32.00	Ngse	Travel & Leisure	0.0	0.0	0.0	7.1	1.0	-61.2
2012	Tourist Company Of Nigeria	32.00	Ngse	Travel & Leisure	0.0	0.0	0.0	7.0	1.0	-30.1
2013	Tourist Company Of Nigeria	32.00	Ngse	Travel & Leisure	0.0	0.0	0.0	7.0	1.0	-141.7
2014	Tourist Company Of Nigeria	32.00	Ngse	Travel & Leisure	0.0	0.0	0.0	7.0	1.0	-217.6
2015	Tourist Company Of Nigeria	32.00	Ngse	Travel & Leisure	0.0	0.0	0.0	6.9	1.0	-293.5
2016	Tourist Company Of Nigeria	32.00	Ngse	Travel & Leisure	0.0	0.0	0.0	6.9	1.0	-369.4
2017	Tourist Company Of Nigeria	32.00	Ngse	Travel & Leisure	0.0	0.0	0.0	6.9	1.0	-445.3
2007	Transcorp Nig	33.00	Ngse	Diversified	0.0	14.0	0.0	8.0	1.0	-25.2
2008	Transcorp Nig	33.00	Ngse	Diversified	0.0	14.0	0.0	8.0	1.0	-20.2
2009	Transcorp Nig	33.00	Ngse	Diversified	0.0	14.0	0.0	7.5	1.0	5.3
2010	Transcorp Nig	33.00	Ngse	Diversified	0.0	14.0	0.0	7.6	1.0	20.2
2011	Transcorp Nig	33.00	Ngse	Diversified	0.0	14.0	0.0	7.8	0.0	14.3
2012	Transcorp Nig	33.00	Ngse	Diversified	0.0	17.0	0.0	7.9	0.0	6.1
2013	Transcorp Nig	33.00	Ngse	Diversified	0.0	0.0	0.0	8.0	1.0	-0.6
2014	Transcorp Nig	33.00	Ngse	Diversified	0.0	0.0	0.0	8.1	1.0	-7.7
2015	Transcorp Nig	33.00	Ngse	Diversified	0.0	0.0	0.0	8.3	1.0	-14.7
2016	Transcorp Nig	33.00	Ngse	Diversified	0.0	0.0	0.0	8.4	0.0	-21.8
2017	Transcorp Nig	33.00	Ngse	Diversified	0.0	0.0	0.0	8.5	1.0	-28.8
2007	Trans-Nationwide Express	34.00	Ngse	Transport	0.0	0.0	0.0	5.4	0.0	35.3
2008	Trans-Nationwide Express	34.00	Ngse	Transport	0.0	0.0	0.0	5.4	0.0	30.8
2009	Trans-Nationwide Express	34.00	Ngse	Transport	0.0	0.0	0.0	5.7	0.0	14.6
2010	Trans-Nationwide Express	34.00	Ngse	Transport	0.0	0.0	0.0	5.7	0.0	12.0
2011	Trans-Nationwide Express	34.00	Ngse	Transport	0.0	0.0	0.0	5.8	0.0	10.6
2012	Trans-Nationwide Express	34.00	Ngse	Transport	0.0	0.0	0.0	5.8	0.0	-10.9
2013	Trans-Nationwide Express	34.00	Ngse	Transport	0.0	0.0	0.0	5.8	0.0	-19.1
2014	Trans-Nationwide Express	34.00	Ngse	Transport	0.0	0.0	0.0	5.9	0.0	-30.6
2015	Trans-Nationwide Express	34.00	Ngse	Transport	0.0	0.0	0.0	5.9	0.0	-42.0
2016	Trans-Nationwide Express	34.00	Ngse	Transport	0.0	0.0	0.0	5.9	0.0	-53.5
2017	Trans-Nationwide Express	34.00	Ngse	Transport	0.0	0.0	0.0	6.0	0.0	-61.6
2007	Tripple Gee & Company	35.00	Ngse	Technology	0.0	0.0	0.0	6.2	0.0	7.1
2008	Tripple Gee & Company	35.00	Ngse	Technology	0.0	0.0	0.0	6.2	0.0	13.0
2009	Tripple Gee & Company	35.00	Ngse	Technology	0.0	0.0	0.0	6.2	0.0	16.6
2010	Tripple Gee & Company	35.00	Ngse	Technology	0.0	0.0	0.0	6.2	0.0	-7.4
2011	Tripple Gee & Company	35.00	Ngse	Technology	0.0	0.0	0.0	6.2	0.0	-7.7
2012	Tripple Gee & Company	35.00	Ngse	Technology	0.0	0.0	0.0	6.2	0.0	-1.0
2013	Tripple Gee & Company	35.00	Ngse	Technology	0.0	0.0	1.0	6.3	0.0	1.1
2014	Tripple Gee & Company	35.00	Ngse	Technology	0.0	0.0	1.0	6.3	0.0	4.3

2015	Tripple Gee & Company	35.00	Ngse	Technology	0.0	0.0	1.0	6.2	0.0	7.5
2016	Tripple Gee & Company	35.00	Ngse	Technology	0.0	0.0	1.0	6.2	0.0	10.7
2017	Tripple Gee & Company	35.00	Ngse	Technology	0.0	0.0	1.0	6.0	0.0	14.0
2007	Uac Of Nig	36.00	Ngse	Diversified	0.0	9.0	1.0	7.9	0.0	13.2
2008	Uac Of Nig	36.00	Ngse	Diversified	0.0	9.0	1.0	8.0	0.0	14.2
2009	Uac Of Nig	36.00	Ngse	Diversified	0.0	9.0	1.0	8.0	0.0	13.7
2010	Uac Of Nig	36.00	Ngse	Diversified	0.0	10.0	0.0	8.0	0.0	12.0
2011	Uac Of Nig	36.00	Ngse	Diversified	0.0	10.0	0.0	8.1	0.0	6.0
2012	Uac Of Nig	36.00	Ngse	Diversified	0.0	13.0	0.0	8.1	0.0	11.7
2013	Uac Of Nig	36.00	Ngse	Diversified	1.0	0.0	1.0	8.1	0.0	9.6
2014	Uac Of Nig	36.00	Ngse	Diversified	1.0	0.0	1.0	8.1	1.0	9.5
2015	Uac Of Nig	36.00	Ngse	Diversified	0.0	0.0	1.0	8.1	1.0	9.4
2016	Uac Of Nig	36.00	Ngse	Diversified	0.0	0.0	1.0	8.1	1.0	9.3
2017	Uac Of Nig	36.00	Ngse	Diversified	0.0	0.0	1.0	8.1	1.0	9.2
2007	Unilever Nig	37.00	Ngse	Food and Beverage	1.0	0.0	0.0	7.3	0.0	25.8
2008	Unilever Nig	37.00	Ngse	Food and Beverage	1.0	0.0	0.0	7.4	0.0	38.9
2009	Unilever Nig	37.00	Ngse	Food and Beverage	0.0	0.0	0.0	7.4	0.0	49.9
2010	Unilever Nig	37.00	Ngse	Food and Beverage	0.0	0.0	0.0	7.4	0.0	50.1
2011	Unilever Nig	37.00	Ngse	Food and Beverage	0.0	0.0	0.0	7.5	0.0	41.3
2012	Unilever Nig	37.00	Ngse	Food and Beverage	1.0	0.0	0.0	7.6	0.0	39.5
2013	Unilever Nig	37.00	Ngse	Food and Beverage	0.0	1.0	1.0	7.6	0.0	33.0
2014	Unilever Nig	37.00	Ngse	Food and Beverage	1.0	1.0	1.0	7.7	0.0	27.7
2015	Unilever Nig	37.00	Ngse	Food and Beverage	1.0	1.0	1.0	7.7	0.0	22.4
2016	Unilever Nig	37.00	Ngse	Food and Beverage	1.0	1.0	1.0	7.9	0.0	17.1
2017	Unilever Nig	37.00	Ngse	Food and Beverage	1.0	1.0	1.0	7.9	0.0	11.8
2007	University Press	38.00	Ngse	Printing	1.0	0.0	0.0	5.7	0.0	22.2
2008	University Press	38.00	Ngse	Printing	0.0	0.0	0.0	6.2	0.0	17.0
2009	University Press	38.00	Ngse	Printing	0.0	0.0	0.0	6.2	0.0	21.9
2010	University Press	38.00	Ngse	Printing	1.0	0.0	0.0	6.3	0.0	22.0
2011	University Press	38.00	Ngse	Printing	1.0	0.0	0.0	6.4	0.0	11.9
2012	University Press	38.00	Ngse	Printing	0.0	0.0	0.0	6.4	0.0	12.3
2013	University Press	38.00	Ngse	Printing	0.0	1.0	1.0	7.0	0.0	5.7
2014	University Press	38.00	Ngse	Printing	1.0	1.0	1.0	7.1	0.0	0.8
2015	University Press	38.00	Ngse	Printing	1.0	1.0	1.0	7.2	0.0	-4.0
2016	University Press	38.00	Ngse	Printing	0.0	1.0	1.0	7.1	0.0	-8.9
2017	University Press	38.00	Ngse	Printing	0.0	1.0	1.0	7.2	0.0	-13.8
2007	Vitafoam Nig	39.00	Ngse	Household	0.0	2.0	2.0	6.5	0.0	31.3
2008	Vitafoam Nig	39.00	Ngse	Household	0.0	2.0	2.0	6.7	0.0	36.8
2009	Vitafoam Nig	39.00	Ngse	Household	1.0	2.0	2.0	6.7	0.0	23.7
2010	Vitafoam Nig	39.00	Ngse	Household	0.0	0.0	0.0	6.8	0.0	20.8
2011	Vitafoam Nig	39.00	Ngse	Household	1.0	0.0	0.0	7.0	0.0	18.5
2012	Vitafoam Nig	39.00	Ngse	Household	1.0	5.0	0.0	7.0	0.0	16.3
2013	Vitafoam Nig	39.00	Ngse	Household	1.0	9.0	3.0	7.1	0.0	14.0

2014	Vitafoam Nig	39.00	Ngse	Household	1.0	2.0	3.0	7.2	0.0	11.7
2015	Vitafoam Nig	39.00	Ngse	Household	0.0	7.0	3.0	7.1	0.0	9.4
2016	Vitafoam Nig	39.00	Ngse	Household	0.0	9.0	3.0	7.0	0.0	7.2
2017	Vitafoam Nig	39.00	Ngse	Household	0.0	9.0	3.0	7.0	0.0	4.9
2007	Neimeth Int Pharm	40	Ngse	Transport	1	0	0	6.48	0.00	26.40
2008	Neimeth Int Pharm	40	Ngse	Transport	1	2	0	6.52	0.00	8.37
2009	Neimeth Int Pharm	40	Ngse	Transport	1	2	0	6.41	1.00	12.65
2010	Neimeth Int Pharm	40	Ngse	Transport	1	2	0	6.35	1.00	15.31
2011	Neimeth Int Pharm	40	Ngse	Transport	1	2	0	6.41	1.00	13.45
2012	Neimeth Int Pharm	40	Ngse	Transport	1	3	0	6.48	1.00	22.52
2013	Neimeth Int Pharm	40	Ngse	Transport	1	3	0	6.81	1.00	24.31
2014	Neimeth Int Pharm	40	Ngse	Transport	1	3	0	6.66	0.00	27.91
2015	Neimeth Int Pharm	40	Ngse	Transport	0	3	0	6.63	0.00	31.52
2016	Neimeth Int Pharm	40	Ngse	Transport	0	2	0	6.54	0.00	35.12
2017	Neimeth Int Pharm	40	Ngse	Transport	0	2	0	6.49	0.00	38.73
2007	National Aviation Handling	41	Ngse	Metal	0	0	0	5.63	1.00	59.96
2008	National Aviation Handling	41	Ngse	Metal	0	0	0	5.81	1.00	45.32
2009	National Aviation Handling	41	Ngse	Metal	0	0	0	5.84	1.00	33.01
2010	National Aviation Handling	41	Ngse	Metal	0	0	0	5.93	0.00	20.40
2011	National Aviation Handling	41	Ngse	Metal	0	0	0	6.09	0.00	8.22
2012	National Aviation Handling	41	Ngse	Metal	0	0	0	6.21	0.00	4.78
2013	National Aviation Handling	41	Ngse	Metal	0	0	0	6.23	0.00	-4.49
2014	National Aviation Handling	41	Ngse	Metal	0	0	0	6.24	1.00	-12.30
2015	National Aviation Handling	41	Ngse	Metal	0	0	0	6.26	1.00	-20.11
2016	National Aviation Handling	41	Ngse	Metal	0	0	0	6.58	1.00	-27.92
2017	National Aviation Handling	41	Ngse	Metal	0	0	0	6.60	1.00	-36.32

Appendix II: Descriptive Statistics Results

```
. tabstat ydiv bizdiv fordiv fsize prodiv roa, statistics
( median max min sd var cv semean sum ) by(startyear)
Summary statistics: p50, max, min, sd, variance, cv, se(mean), sum
  by categories of: startyear (Start Year)
```

startyear	ydiv	bizdiv	fordiv	fsize	prodiv	roa
2007	0	0	0	6.65	0	18.3
	1	16	6	8.2	1	364.7
	0	0	0	5.4	0	-2087.7
	.4671766	3.864675	1.0586	.7177803	.5039526	359.6931
	.218254	14.93571	1.120635	.5152085	.2539683	129379.2
	1.528942	2.208386	3.810962	.1063334	1.133893	-15.77909
	.0778628	.6441125	.1764334	.11963	.0839921	59.94886
	11	63	10	243.01	16	-820.6399
2008	0	0	0	6.85	0	15.5
	1	14	2	8.5	1	107.1
	0	0	0	5.4	0	-560.9
	.4830459	2.854484	.4043038	.6944963	.5006406	96.57065
	.2333333	8.148077	.1634615	.4823251	.250641	9325.891
	1.380131	2.003146	3.23443	.1007502	1.177978	8.452759
	.0763763	.4513335	.063926	.1098095	.0791582	15.26916
	14	57	5	275.73	17	456.99
2009	0	0	0	6.9	1	19.2
	1	14	2	8.5	1	121.8
	0	0	0	5.7	0	-39.9
	.448575	2.88076	.3744915	.6648763	.5060608	27.42125
	.2012195	8.29878	.1402439	.4420605	.2560976	751.9249
	1.671961	2.0364	3.838538	.0968553	.9880235	1.13901
	.0700556	.4498992	.0584858	.1038362	.0790334	4.28248
	11	58	4	281.45	21	987.06
2010	0	0	0	6.9	0	15.7
	1	14	11	8.5	1	169.8
	0	0	0	5.7	0	-26.8
	.4606464	3.456172	1.721103	.6671111	.5060608	33.57139
	.2121951	11.94512	2.962195	.4450373	.2560976	1127.038
	1.573875	1.889374	5.880435	.0965872	1.037425	1.300467
	.0719409	.5397633	.2687911	.1041853	.0790334	5.24297
	12	75	12	283.18	20	1058.41
2011	0	0	0	6.9	0	13.5
	1	14	11	8.6	1	71.1
	0	0	0	5.8	0	-61.2
	.4938648	3.472716	1.721103	.6869135	.5024331	20.70918
	.2439024	12.05976	2.962195	.4718502	.252439	428.8703
	1.265529	1.849108	5.880435	.098028	1.144431	1.534097
	.0771287	.5423471	.2687911	.1072779	.0784669	3.234231
	16	77	12	287.3	18	553.47
2012	0	0	0	7	0	11.7
	1	19	15	8.7	1	78.5
	0	0	0	5.8	0	-30.1
	.4800915	4.38192	2.343908	.6798271	.5060608	20.12404
	.2304878	19.20122	5.493902	.4621649	.2560976	404.9769
	1.405982	1.931814	6.006263	.0963494	1.037425	1.608981
	.0749777	.6843409	.3660569	.1061712	.0790334	3.142847
	14	93	16	289.29	20	512.8
2013	0	1	0	7	0	7.1
	1	18	17	8.8	1	76.3
	0	0	0	.9	0	-141.7
	.448575	3.409456	2.674176	1.188842	.5024331	35.7732
	.2012195	11.62439	7.15122	1.413346	.252439	1279.722
	1.671961	1.725774	3.654708	.1701073	1.144431	11.16041
	.0700556	.5324676	.4176362	.185666	.0784669	5.586836
	11	81	30	286.54	18	131.42
2014	0	1	0	7	1	4
	1	12	11	8.9	1	94.7
	0	0	0	.8	0	-217.6
	.4606464	2.467348	1.965247	1.197312	.5048545	52.65409
	.2121951	6.087805	3.862195	1.433556	.254878	2772.453
	1.573875	1.50987	2.778452	.1709254	.9408652	-13.14029
	.0719409	.385335	.30692	.1869887	.078845	8.223187
	12	67	29	287.2	22	-164.29
2015	0	1	0	7.1	1	.9
	1	8	18	9	1	113.1
	0	0	0	.8	0	-293.5
	.448575	2.12247	2.826486	1.213931	.5048545	70.28145
	.2012195	4.504878	7.989024	1.47363	.254878	4939.482
	1.671961	1.38129	3.738256	.1728827	.9408652	-6.258909
	.0700556	.3314741	.441423	.1895842	.078845	10.97612
	11	63	31	287.89	22	-460.39

2015	0	1	0	7.1	1	.9
	1	8	18	9	1	113.1
	0	0	0	.8	0	-293.5
	.448575	2.12247	2.826486	1.213931	.5048545	70.28145
	.2012195	4.504878	7.989024	1.47363	.254878	4939.482
	1.671961	1.38129	3.738256	.1728827	.9408652	-6.258909
	.0700556	.3314741	.441423	.1895842	.078845	10.97612
	11	63	31	287.89	22	-460.39
2016	0	1	0	7.1	0	-2.3
	1	9	18	9.1	1	131.4
	0	0	0	.8	0	-369.4
	.4012177	2.134216	3.044587	1.225519	.5060608	88.21045
	.1609756	4.554878	9.269512	1.501896	.2560976	7781.084
	2.056241	1.458381	3.28495	.1740311	1.037425	-4.780106
	.0626597	.3333085	.4754847	.1913939	.0790334	13.77616
	8	60	38	288.72	20	-756.6
2017	0	1	0	7	1	-6.7
	1	9	18	9.2	1	149.8
	0	0	0	.8	0	-445.3
	.4012177	2.122757	3.098387	1.28465	.5060608	106.2734
	.1609756	4.506098	9.6	1.650324	.2560976	11294.03
	2.056241	1.403759	3.098387	.1823207	.9880235	-4.151739
	.0626597	.331519	.4838867	.2006286	.0790334	16.59711
	8	62	41	288.89	21	-1049.49
Total	0	0	0	6.9	0	12
	1	19	18	9.2	1	364.7
	0	0	0	.8	0	-2087.7
	.4531721	3.068897	2.15669	.9634765	.5002783	118.7272
	.2053649	9.418129	4.651311	.928287	.2502784	14096.14
	1.575481	1.806428	4.209329	.1383412	1.03546	117.7376
	.0214824	.1454797	.1022369	.0456732	.0237155	5.628207
	128	756	228	3099.2	215	448.7401

```
. tabstat ydiv bizdiv fordiv fsize prodiv roa, statistics(
 median max min sd var cv semean sum ) by(company)
Summary statistics: p50, max, min, sd, variance, cv, se(mean), sum
  by categories of: company (Company)
```

company	ydiv	bizdiv	fordiv	fsize	prodiv	roa
7Up Nigeria	0	0	0	7.6	1	21
	1	1	11	7.8	1	26.6
	0	0	0	7.1	0	19.2
	.522233	.3015113	3.258555	.2161649	.4670994	1.976498
	.2727273	.0909091	10.61818	.0467273	.2181818	3.906546
	1.148913	3.316625	2.560293	.0286484	.6422616	.0926352
	.1574592	.0909091	.9824914	.0651762	.1408358	.5959367
	5	1	14	83	8	234.7
A.G.Leventis Nig	1	8	0	7.3	0	2.8
	1	8	0	9	1	13
	0	4	0	7	0	-8.1
	.504525	1.206045	0	.5368257	.504525	7.279336
	.2545455	1.454545	0	.2881818	.2545455	52.98873
	.792825	.1637839	.	.0722776	1.387444	2.859739
	.15212	.3636364	0	.161859	.15212	2.194802
	7	81	0	81.7	4	28
Academy	0	2	0	6.4	0	13.4
	0	2	1	6.6	1	28.2
	0	2	0	6	0	-25.8
	0	0	.3015113	.246429	.504525	17.50096
	0	0	.0909091	.0607273	.2545455	306.2836
	.	0	3.316625	.03878	1.387444	3.512966
	0	0	.0909091	.0743011	.15212	5.276738
	0	22	1	69.9	4	54.8
Air& Logistic Se	1	2	0	6.5	0	24.3
	1	3	0	6.8	1	38.7
	0	0	0	6.3	0	8.4
	.4670994	.8738629	0	.1401298	.522233	9.861993
	.2181818	.7636364	0	.0196364	.2727273	97.25891
	.6422616	.4005205	.	.0214983	1.148913	.4234267
	.1408358	.2634796	0	.0422507	.1574592	2.973503
	8	24	0	71.7	5	256.2
Aluminium Extrus	0	0	0	6.2	1	4.8
	0	0	0	6.6	1	60
	0	0	0	5.6	0	-36.3
	0	0	0	.321926	.504525	30.76696
	0	0	0	.1036363	.2545455	946.6056
	.	.	.	.0526179	.792825	4.793719
	0	0	0	.0970643	.15212	9.276586
	0	0	0	67.3	7	70.6
Associated Bus C	0	3	1	6.5	0	14.8
	0	4	1	6.7	1	41.7
	0	3	1	.8	0	3.3
	0	.4670994	0	3.02781	.4045199	13.63814
	0	.2181818	0	9.167636	.1636364	185.9989
	.	.1427248	0	.760409	2.22486	.7701209
	0	.1408358	0	.9129192	.1219673	4.112054
	0	36	11	43.8	2	194.8
Avon Crowncaps &	0	2	0	7	0	4.2
	0	2	0	7.1	0	14.6
	0	0	0	6.6	0	3.4
	0	.6875517	0	.1513575	0	4.210182
	0	.4727273	0	.0229091	0	17.72564
	.	.4448864	.	.021907	.	.6495373
	0	.2073046	0	.045636	0	1.269418
	0	17	0	76	0	71.3
B.O.C Gases Nig	0	0	0	6.4	0	18.5
	0	0	0	6.5	0	31.4
	0	0	0	6.2	0	-11
	0	0	0	.1044466	0	15.20829
	0	0	0	.0109091	0	231.292
	.	.	.	.016343	.	1.007171
	0	0	0	.0314918	0	4.585471
	0	0	0	70.3	0	166.1
Berger Paints Ni	0	0	0	6.5	1	10.4
	1	0	0	6.6	1	26.4
	0	0	0	6.3	0	-29.8
	.504525	0	0	.1044465	.522233	17.47526
	.2545455	0	0	.0109091	.2727273	305.3847
	1.387444	.	.	.0160912	.9574271	12.0898
	.15212	0	0	.0314918	.1574592	5.268989
	4	0	0	71.4	6	15.9

Beta Glass Compa	0	0	0	7.4	1	10.7
	1	0	0	7.4	1	16.4
	0	0	0	6.6	1	.8
	.504525	0	0	.2464291	0	5.654395
	.2545455	0	0	.0607273	0	31.97218
	1.387444	.	.	.0340115	0	.5475206
	.15212	0	0	.0743012	0	1.704864
	4	0	0	79.7	11	113.6
Cadbury Nig	0	1	0	7.5	0	24.3
	1	1	0	7.6	1	85.4
	0	0	0	7.3	0	-2087.7
	.522233	.4045199	0	.0943879	.4045199	638.5439
	.2727273	.1636364	0	.0089091	.1636364	407738.3
	1.148913	.4944132	.	.0126003	2.22486	-3.900262
	.1574592	.1219673	0	.028459	.1219673	192.5282
	5	9	0	82.4	2	-1800.9
Capital Hotel	0	.5	0	6.8	1	-39.75
	1	1	0	7.5	1	169.8
	0	0	0	6.7	0	-403.8
	.4830459	.5270463	0	.2260776	.3162278	181.6436
	.2333333	.2777778	0	.0511111	.1	32994.4
	1.610153	1.054093	.	.0327649	.3513642	-1.816799
	.1527525	.1666667	0	.071492	.1	57.44075
	3	5	0	69	9	-999.8
Cement Comy Of N	0	0	0	7.1	1	14.4
	1	1	0	7.2	1	43
	0	0	0	6.9	0	-6.7
	.522233	.522233	0	.1136181	.522233	16.6515
	.2727273	.2727273	0	.0129091	.2727273	277.2726
	1.148913	1.148913	.	.0160231	.9574271	1.017592
	.1574592	.1574592	0	.0342571	.1574592	5.020617
	5	5	0	78	6	180
Chams	0	4	0	6.95	1	6.15
	1	5	0	7.3	1	67.8
	0	2	0	6.8	0	-39.9
	.4830459	1.229273	0	.1449137	.421637	36.38572
	.2333333	1.511111	0	.021	.1777778	1323.921
	1.610153	.3234928	.	.0207316	.5270463	3.5848
	.1527525	.3887301	0	.0458257	.1333333	11.50617
	3	38	0	69.9	8	101.5

Chellarams	0	0	0	7.2	0	7.3
	1	0	0	7.6	1	20.9
	0	0	0	6.8	0	-17
	.522233	0	0	.2750206	.522233	11.01728
	.2727273	0	0	.0756363	.2727273	121.3805
	1.148913	.	.	.038294	1.148913	2.524794
	.1574592	0	0	.0829218	.1574592	3.321836
	5	0	0	79	5	48
National Aviatio	0	0	0	6.21	1	4.78
	0	0	0	6.6	1	59.96
	0	0	0	5.63	0	-36.32
	0	0	0	.3077159	.504525	30.76912
	0	0	0	.0946891	.2545455	946.739
	.	.	.	.0502058	.792825	4.797454
	0	0	0	.0927798	.15212	9.27724
	0	0	0	67.42	7	70.55
Neimeth Int Phar	1	2	0	6.49	0	24.31
	1	3	0	6.81	1	38.73
	0	0	0	6.35	0	8.37
	.4670994	.8738629	0	.1315571	.522233	9.874443
	.2181818	.7636364	0	.0173073	.2727273	97.50463
	.6422616	.4005205	.	.0201606	1.148913	.4238124
	.1408358	.2634796	0	.039666	.1574592	2.977257
	8	24	0	71.78	5	256.29
Nestle Nig	0	0	0	7.9	1	61.8
	1	0	0	8.3	1	92.8
	0	0	0	7.3	0	3.7
	.504525	0	0	.3036146	.522233	32.18311
	.2545455	0	0	.0921818	.2727273	1035.752
	1.387444	.	.	.0385654	.9574271	.5678764
	.15212	0	0	.0915432	.1574592	9.703571
	4	0	0	86.6	6	623.4
Nigeria Brewerie	1	2	0	8.4	1	40.7
	1	3	0	8.6	1	79.7
	0	1	0	8	0	-9.2
	.504525	.6741999	0	.2533414	.522233	27.45676
	.2545455	.4545455	0	.0641818	.2727273	753.8736
	.792825	.412011	.	.0304231	.9574271	.7818389
	.15212	.2032789	0	.0763853	.1574592	8.278524
	7	18	0	91.6	6	386.3

Nigerian Enamelw	0	0	0	6.3	1	17.6
	1	1	8	6.8	1	36.5
	0	0	0	6	0	6.4
	.522233	.3015113	2.412091	.2876235	.4045199	9.487187
	.2727273	.0909091	5.818182	.0827273	.1636364	90.00673
	1.148913	3.316625	3.316625	.0453275	.4944132	.4686083
	.1574592	.0909091	.7272727	.0867217	.1219673	2.860495
	5	1	8	69.8	9	222.7
Oando	0	12	11	8.7	0	3.7
	1	19	18	9.2	1	18.9
	0	0	0	8.2	0	-6
	.4670994	6.917698	7.00649	.3036146	.3015113	8.960479
	.2181818	47.85455	49.09091	.0921818	.0909091	80.29018
	1.712698	.7178743	.6422616	.0347892	3.316625	1.428482
	.1408358	2.085764	2.112536	.0915432	.0909091	2.701686
	3	106	120	96	1	69
Okomu Oil Palm	1	0	0	7.4	1	7.1
	1	0	0	7.6	1	28.2
	0	0	0	6.8	0	-20.3
	.522233	0	0	.3045115	.4670994	15.97025
	.2727273	0	0	.0927272	.2181818	255.0489
	.9574271	.	.	.0420279	.6422616	2.35171
	.1574592	0	0	.0918137	.1408358	4.815212
	6	0	0	79.7	8	74.7
Pharma-Deko	1	0	0	6.4	1	94.7
	1	0	1	6.5	1	364.7
	0	0	0	6.1	1	-1.5
	.504525	0	.522233	.1250455	0	93.7232
	.2545455	0	.2727273	.0156364	0	8784.039
	.792825	.	1.148913	.0197914	0	.8400189
	.15212	0	.1574592	.0377027	0	28.25861
	7	0	5	69.5	11	1227.3
Portland Paint N	0	1	0	6.3	1	-74.4
	0	1	0	6.4	1	21.1
	0	0	0	6	1	-254.3
	0	.5270463	0	.1322876	0	103.5499
	0	.2777778	0	.0175	0	10722.58
	.	.9486833	.	.0211097	0	-1.164209
	0	.1756821	0	.0440959	0	34.51664
	0	5	0	56.4	9	-800.5

Presco	0	0	0	7.4	1	13.9
	1	1	9	7.9	1	38.3
	0	0	0	6.7	0	-2.2
	.4670994	.522233	2.713602	.3945077	.522233	12.89079
	.2181818	.2727273	7.363636	.1556364	.2727273	166.1725
	1.712698	1.148913	3.316625	.0541771	.9574271	.8350926
	.1408358	.1574592	.8181818	.1189486	.1574592	3.88672
	3	5	9	80.1	6	169.8
Pz Cussons	1	4	0	7.8	0	6.2
	1	6	1	7.9	0	15
	0	0	0	7.7	0	-13.2
	.4670994	2.119177	.522233	.083121	0	10.29503
	.2181818	4.490909	.2727273	.0069091	0	105.9876
	.6422616	.6856159	1.148913	.0106441	.	2.246931
	.1408358	.6389558	.1574592	.0250619	0	3.104068
	8	34	5	85.9	0	50.4
R.T Briscoe Nig	0	6	0	7.2	0	-9
	0	7	0	7.6	1	21.6
	0	0	0	6.9	0	-40.2
	0	2.866737	0	.2561959	.504525	21.44625
	0	8.218182	0	.0656364	.2545455	459.9416
	.	.7691246	.	.0354931	1.387444	-2.945178
	0	.8643538	0	.077246	.15212	6.466288
	0	41	0	79.4	4	-80.1
Redstar Express	0	3	0	6.4	1	23.3
	1	3	0	6.6	1	33.5
	0	2	0	6.1	1	14.1
	.522233	.4045199	0	.1420627	0	6.242348
	.2727273	.1636364	0	.0201818	0	38.96691
	1.148913	.1435393	.	.0221031	0	.2691722
	.1574592	.1219673	0	.0428335	0	1.882139
	5	31	0	70.7	11	255.1
Scoa Nig	0	2	0	6.8	0	2.3
	1	2	0	7.3	1	54.3
	0	2	0	6.5	0	-14.7
	.4045199	0	0	.2533413	.522233	20.41333
	.1636364	0	0	.0641818	.2727273	416.704
	2.22486	0	.	.0368618	1.148913	3.046765
	.1219673	0	0	.0763853	.1574592	6.15485
	2	22	0	75.6	5	73.7

Studio Press Nig	0	0	0	6.9	0	-.6
	0	0	1	7	1	19.2
	0	0	0	6.7	0	-14.7
	0	0	.522233	.094388	.504525	7.866442
	0	0	.2727273	.0089091	.2545455	61.88091
	.	.	1.148913	.0136614	1.387444	86.53079
	0	0	.1574592	.0284591	.15212	2.371822
	0	0	5	76	4	1.000001
Tantalizer	0	0	.5	6.8	1	-10.65
	1	0	1	6.8	1	8.1
	0	0	0	6.7	1	-33.5
	.421637	0	.5270463	.0316229	0	14.3705
	.1777778	0	.2777778	.001	0	206.5112
	2.108185	.	1.054093	.0046573	0	-1.314776
	.1333333	0	.1666667	.01	0	4.544351
	2	0	5	67.9	10	-109.3
Tiger Branded	0	3	0	7.8	1	-13.35
	0	3	1	7.9	1	19.5
	0	2	0	7.7	1	-55.8
	0	.4830459	.3162278	.0788811	0	26.16055
	0	.2333333	.1	.0062222	0	684.3743
	.	.1789059	3.162278	.0100871	0	-1.754564
	0	.1527525	.1	.0249444	0	8.272692
	0	27	1	78.2	10	-149.1
Total Nigeria	0	0	0	7.9	0	38.1
	0	0	0	8.1	1	60.4
	0	0	0	7.6	0	31.8
	0	0	0	.1618081	.522233	9.682543
	0	0	0	.0261819	.2727273	93.75164
	.	.	.	.0206723	1.148913	.2279221
	0	0	0	.048787	.1574592	2.919397
	0	0	0	86.1	5	467.3
Tourist Company	0	0	0	7	1	-141.7
	0	0	0	7.1	1	153.8
	0	0	0	6.9	0	-560.9
	0	0	0	.0831209	.4045199	243.1541
	0	0	0	.0069091	.1636364	59123.93
	.	.	.	.0118899	.4944132	-1.552979
	0	0	0	.0250619	.1219673	73.31373
	0	0	0	76.9	9	-1722.3

Trans-Nationwide	0	0	0	5.8	0	-10.9
	0	0	0	6	0	35.3
	0	0	0	5.4	0	-61.6
	0	0	0	.1967925	0	33.63819
	0	0	0	.0387273	0	1131.528
	.	.	.	.0341977	.	-3.234442
	0	0	0	.0593352	0	10.1423
	0	0	0	63.3	0	-114.4
Transcorp Nig	0	14	0	8	1	-7.7
	0	17	0	8.5	1	20.2
	0	0	0	7.5	0	-28.8
	0	7.621739	0	.3113022	.4670994	16.77959
	0	58.09091	0	.0969091	.2181818	281.5547
	.	.9636682	.	.0388686	.6422616	-2.524973
	0	2.298041	0	.0938612	.1408358	5.059238
	0	87	0	88.1	8	-73.1
Tripple Gee & Co	0	0	0	6.2	0	7.1
	0	0	1	6.3	0	16.6
	0	0	0	6	0	-7.7
	0	0	.522233	.0774597	0	8.297765
	0	0	.2727273	.006	0	68.85291
	.	.	1.148913	.0124935	.	1.568306
	0	0	.1574592	.023355	0	2.50187
	0	0	5	68.2	0	58.2
Uac Of Nig	0	9	1	8.1	0	9.6
	1	13	1	8.1	1	14.2
	0	0	0	7.9	0	6
	.4045199	5.335984	.4670994	.0687553	.504525	2.466355
	.1636364	28.47273	.2181818	.0047273	.2545455	6.082909
	2.22486	.9782638	.6422616	.0085362	1.387444	.2303048
	.1219673	1.60886	.1408358	.0207305	.15212	.7436341
	2	60	8	88.6	4	117.8
Unilever Nig	1	0	0	7.6	0	33
	1	1	1	7.9	0	50.1
	0	0	0	7.3	0	11.8
	.504525	.522233	.522233	.2040499	0	12.71125
	.2545455	.2727273	.2727273	.0416363	0	161.576
	.792825	1.148913	1.148913	.0269131	.	.3911155
	.15212	.1574592	.1574592	.0615233	0	3.832588
	7	5	5	83.4	0	357.5

University Press	0	0	0	6.4	0	11.9
	1	1	1	7.2	0	22.2
	0	0	0	5.7	0	-13.8
	.522233	.522233	.522233	.5173358	0	12.913
	.2727273	.2727273	.2727273	.2676363	0	166.7456
	1.148913	1.148913	1.148913	.0781689	.	1.630804
	.1574592	.1574592	.1574592	.1559826	0	3.893417
	5	5	5	72.8	0	87.1
Vitafoam Nig	0	2	2	7	0	16.3
	1	9	3	7.2	0	36.8
	0	0	0	6.5	0	4.9
	.522233	3.635682	1.30035	.2136267	0	9.953135
	.2727273	13.21818	1.690909	.0456364	0	99.06491
	1.148913	.8509042	.6811355	.030879	.	.562613
	.1574592	1.096199	.3920702	.0644109	0	3.000983
	5	47	21	76.1	0	194.6
Total	0	0	0	6.9	0	12
	1	19	18	9.2	1	364.7
	0	0	0	.8	0	-2087.7
	.4531721	3.068897	2.15669	.9634765	.5002783	118.7272
	.2053649	9.418129	4.651311	.928287	.2502784	14096.14
	1.575481	1.806428	4.209329	.1383412	1.03546	117.7376
	.0214824	.1454797	.1022369	.0456732	.0237155	5.628207
	128	756	228	3099.2	215	448.7401

- **Appendix III: Correlation Result**

```
. correlate ydiv bizdiv fordiv fsize prodiv roa
(obs=445)

             |     ydiv   bizdiv   fordiv    fsize   prodiv      roa
-------------+------------------------------------------------------
        ydiv |   1.0000
      bizdiv |  -0.0283   1.0000
      fordiv |   0.0217   0.3936   1.0000
       fsize |   0.1190   0.2223   0.2336   1.0000
      prodiv |   0.0314  -0.1236  -0.1318   0.0423   1.0000
         roa |   0.0983  -0.0009   0.0136  -0.0273  -0.0807   1.0000


. sktest ydiv bizdiv fordiv fsize prodiv roa

                    Skewness/Kurtosis tests for Normality
                                                       ------- joint ------
    Variable |    Obs   Pr(Skewness)   Pr(Kurtosis)  adj chi2(2)    Prob>chi2
-------------+-------------------------------------------------------------
        ydiv |    445      0.0000          0.0000            .          0.0000
      bizdiv |    445      0.0000          0.0000            .          0.0000
      fordiv |    445      0.0000          0.0000            .          0.0000
       fsize |    445      0.0000          0.0000            .          0.0000
      prodiv |    445      0.5554               .            .               .
         roa |    445      0.0000          0.0000            .          0.0000

. regress roa ydiv bizdiv fordiv fsize prodiv

      Source |       SS       df       MS              Number of obs =     445
-------------+------------------------------           F(  5,   439) =    1.62
       Model |  113145.248     5  22629.0497           Prob > F      =  0.1543
    Residual |  6145540.15   439  13998.9525           R-squared     =  0.0181
-------------+------------------------------           Adj R-squared =  0.0069
       Total |  6258685.39   444  14096.1383           Root MSE      =  118.32

------------------------------------------------------------------------------
         roa |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        ydiv |   27.50771   12.50336     2.20   0.028     2.933834    52.08159
      bizdiv |  -.1483136   2.023397    -0.07   0.942    -4.125062    3.828435
      fordiv |     .60226   2.886819     0.21   0.835    -5.071444    6.275964
       fsize |  -4.687493   6.128314    -0.76   0.445    -16.73197    7.356988
      prodiv |  -19.32351   11.40521    -1.69   0.091    -41.73911    3.092096
       _cons |   35.02156   42.03764     0.83   0.405    -47.59848    117.6416
------------------------------------------------------------------------------
```

```
Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
         Ho: Constant variance
         Variables: fitted values of roa

         chi2(1)      =    278.04
         Prob > chi2  =    0.0000

. estat vif

    Variable |       VIF        1/VIF
-------------+----------------------
      fordiv |      1.23     0.813388
     bizdiv |      1.22     0.817685
       fsize |      1.11     0.904374
     prodiv |      1.03     0.968462
       ydiv |      1.02     0.982049
-------------+----------------------
    Mean VIF |      1.12

. estat ovtest

Ramsey RESET test using powers of the fitted values of roa
       Ho:  model has no omitted variables
                 F(3, 436) =      0.91
                  Prob > F =      0.4341

. xtset croid startyear, yearly
       panel variable:  croid (unbalanced)
        time variable:  startyear, 2007 to 2017
                delta:  1 year

. hausman FE RE

                ---- Coefficients ----
             |      (b)          (B)            (b-B)     sqrt(diag(V_b-V_B))
             |       FE           RE         Difference          S.E.
-------------+----------------------------------------------------------------
        ydiv |    15.29359     22.67974       -7.386155        6.319419
      bizdiv |   -1.513062    -.4800594       -1.033002        1.724798
      fordiv |   -.8936637     .1599606       -1.053624        2.627552
       fsize |   -7.602432    -4.661437       -2.940995        7.931562
      prodiv |   -27.67574    -22.96337       -4.712367        7.714554
------------------------------------------------------------------------------
                           b = consistent under Ho and Ha; obtained from xtreg
            B = inconsistent under Ha, efficient under Ho; obtained from xtreg

    Test:  Ho:  difference in coefficients not systematic

                  chi2(5) = (b-B)'[(V_b-V_B)^(-1)](b-B)
                          =          2.31

                Prob>chi2 =      0.8041


. eststo: xtreg roa ydiv bizdiv fordiv prodiv fsize, fe

Fixed-effects (within) regression               Number of obs      =       445
Group variable: croid                           Number of groups   =        41

R-sq:  within  = 0.0139                         Obs per group: min =         9
       between = 0.0167                                        avg =      10.9
       overall = 0.0124                                        max =        11

                                                F(5,399)           =      1.13
corr(u_i, Xb)  = -0.0960                        Prob > F           =    0.3463

------------------------------------------------------------------------------
         roa |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        ydiv |    15.29359    14.5073     1.05   0.292    -13.2267    43.81388
      bizdiv |   -1.513062   2.838322    -0.53   0.594   -7.092997    4.066874
      fordiv |   -.8936637   4.188068    -0.21   0.831     -9.1271    7.339773
      prodiv |   -27.67574   14.58141    -1.90   0.058   -56.34173    .9902602
       fsize |   -7.602432   10.7552     -0.71   0.480   -28.74638    13.54152
       _cons |    65.95625   75.43944     0.87   0.382   -82.35219    214.2647
-------------+----------------------------------------------------------------
     sigma_u |    48.50017
     sigma_e |   113.90859
         rho |   .15346773   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(40, 399) =     1.87                 Prob > F = 0.0016
(est5 stored)

. eststo: xtreg roa ydiv bizdiv fordiv prodiv fsize, re

Random-effects GLS regression                   Number of obs      =       445
Group variable: croid                           Number of groups   =        41

R-sq:  within  = 0.2123                         Obs per group: min =         9
       between = 0.1993                                        avg =      10.9
       overall = 0.0174                                        max =        11

                                                Wald chi2(5)       =      6.79
corr(u_i, X)   = 0 (assumed)                    Prob > chi2        =    0.0000

------------------------------------------------------------------------------
         roa |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        ydiv |    22.67974   13.05858     1.74   0.082    -2.91461    48.2741
      bizdiv |   -.4800594    2.25414    -0.21   0.831   -4.898092    3.937973
      fordiv |    .1599606    3.26127     0.05   0.961   -6.232011    6.551932
```

```
      prodiv |  -22.96337   12.37349    -1.86   0.063    -47.21496    1.288225
       fsize |  -4.661437   7.263934    -0.64   0.521    -18.89849    9.575611
       _cons |   38.54799   50.44932     0.76   0.445    -60.33086    137.4268
-------------+----------------------------------------------------------------
     sigma_u |  35.236393
     sigma_e |  113.90859
         rho |  .08733371   (fraction of variance due to u_i)
------------------------------------------------------------------------------
(est6 stored)

. esttab, r2 ar2 beta p

------------------------------------------------------------
                              (FIXED)           (RANDOM)
                               EFFECT            EFFECT
------------------------------------------------------------
bizdiv                        -0.039            -0.012
                              (0.594)           (0.831)

fordiv                        -0.016             0.003
                              (0.831)           (0.961)

prodiv                        -0.117            -0.097
                              (0.058)           (0.063)

fsize                         -0.062            -0.038
                              (0.480)           (0.521)

ydiv                           0.058             0.087
                              (0.292)           (0.082)
------------------------------------------------------------
N                              445                445
R-sq                                              0.212
adj. R-sq                                         0.199
HAUSMAN TEST                                      0.804
------------------------------------------------------------
Standardized beta coefficients; p-values in parentheses
* p<0.05, ** p<0.01, *** p<0.001
```