CEO CHARACTERISTICS AND FIRM VALUE IN NIGERIA

BY

Winifred Oghogho OSASOGIE

MGS1807684

DEPARTMENT OF ACCOUNTING

FACULTY OF MANAGEMENT SCIENCES

UNIVERSITY OF BENIN, EDO, NIGERIA

APRIL, 2024

CEO CHARACTERISTICS AND FIRM VALUE IN NIGERIA

BY

Winifred Oghogho OSASOGIE

MGS1807684

BEING A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF ACCOUNTING, FACULTY OF MANAGEMENTS SCIENCES, UNIVERSITY OF BENIN, BENIN CITY. IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF BACHELOR OF SCIENCE (B.Sc.) HONOURS DEGREE IN ACCOUNTING

APRIL, 2024

DECLARATION

I declare that;

1. This is based on a study undertaken in the Department of Accounting, Faculty of Management Sciences, University of Benin, Benin City, under the supervision of Dr. G. Audu.

2. This work has not been previously submitted for the award of degree elsewhere.

3. All ideas and views are products of my personal research and that of my supervisor and all the references made to works of other persons have been duly acknowledged.

_____ _____

Winifred Oghogho OSASOGIE Date

CERTIFICATION

This is to certify that this project was carried out by Winifred Oghogho OSASOGIE of the Department of Accounting, Faculty of Management Sciences, University of Benin, Benin City, and is adequate in scope and quality for the partial fulfilment of the requirements for the award of Bachelor of Sciences (B. Sc.) degree in Department of Accounting.

_____

Dr. G. Audu

(Project supervisor)

_____

Dr. Ikhu-Omoregbe Godstime

(Project coordinator)

_____

Dr. Osasu Obaretin

(Head of Department, Accounting)

DEDICATION

This project is dedicated to the Almighty God for the grace He bestowed upon me all through my study in the Department of Accounting, Faculty of Management Sciences, University of Benin, Benin City. This project is also dedicated to my lovely parents MR. and MRS. OSASOGIE, for their endless love, prayers and support through the course of my study.

ACKNOWLEDGEMENTS

My sincere appreciation goes to my father in heaven who has ordered my steps throughout my tertiary education pursuit in the University of Benin. I will forever be grateful to God.

I would like to express my sincere gratitude to my supervisor, Dr.G.Audu for his enthusiasm, patience, insightful comments, helpful information and unceasing ideas that have helped me tremendously at all times in my research. I also acknowledge my course adviser, Dr. Jude for being a teacher, a friend and a father.

Secondly, I wish to acknowledge my indebtedness to my parents MR and MRS. OSASOGIE, my first love and best friend, thanks for your love, your amazing support and prayers that has kept me safe and sound so far. I also acknowledge my Big sisters and brother MRS PECULIAR OSAYEMENERE and JOSHUA OSASOGIE for being my forte, my role model. Thank you so much for everything single time you've put me and the family before your needs, I love and appreciate you forever. finally i want to appreciate my course mate and friends helped me and any way, i really appreciate and i love u all.

TABLE OF CONTENTS

ABSTRACT

This study reviewed CEO characteristics and firm value in Nigeria Over the period of 2018 - 2023. The study's objective is to examine the to examine the impact of CEO education and firm value in Nigeria, to analyze the impact of CEO religion on firm value in Nigeria, to examine the influence of CEO age on firm value in Nigeria and to investigate the effect of CEO political affiliation and firm value in Nigeria. The Research design used in this study is the quantitative method, secondary data was collected from 50 firms sourced from the Nigerian stock exchange, the study utilised the panel data regression approach, given the nature of the dataset, the data was analysed using correlation coefficient and regression analysis. The analysis revealed several key findings regarding the factors influencing return on investment (ROI), a positive impact of education on return on investment (ROI), a positive impact of religion on return on equity (ROE), a positive impact of age on return on equity, implying that older age groups may tend to achieve higher returns, while firm size was found to have a statistically significant negative impact on return on investment. This implies that larger firms tend to experience lower returns on investment. In conclusion, the analysis provides valuable insights into the factors influencing return on investment (ROI) and return on assets (ROA), the study recommended that investors should diversify decision-making beyond education, considering factors like financial performance and market conditions. Encouraging continuous financial education can empower investors for effective market navigation. Additionally, holistic approaches integrating religion, age, and firm size with risk assessment optimize investment outcomes.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

The dynamics of corporate leadership and its influence on firm performance have long been a subject of interest. Among the myriad factors shaping leadership, CEO characteristics stand out as pivotal elements defining organizational strategies and shaping corporate cultures. Attributes like age, education, religious beliefs, and political affiliations collectively form a mosaic of influences guiding decision-making processes within businesses (Smith & Watkins, 2020).

Research has extensively explored the impact of various CEO traits on organizational outcomes. Age, for instance, often influences leadership styles and decision-making approaches, with studies suggesting correlations between the age of CEOs and company performance (Jones & Bates, 2019). Education, another critical aspect, shapes cognitive frameworks and problem-solving approaches, potentially impacting the strategic direction of firms (Miller & Shamsie, 2017).

However, among the array of CEO characteristics, religion and political affiliation have emerged as intriguing yet relatively understudied factors in understanding leadership within corporate contexts. Religious beliefs and political orientations wield significant influence on personal values, ethical considerations, and decision-making paradigms (Gotsis & Kortezi, 2017). These factors intersect with the business realm, potentially influencing strategic choices, stakeholder relationships, and organizational cultures.

Moreover, the diverse spectrum of religious affiliations—ranging from Christianity, Islam, Judaism, Buddhism, Hinduism, to various spiritual or non-religious orientations—among

CEOs highlights the multifaceted nature of leadership in contemporary business landscapes. Similarly, the political affiliations of CEOs, whether aligned with specific ideologies or parties, may shape their approach to risk-taking, regulatory compliance, and long-term planning (Tetlock & Belkin, 2015).

Central to this study is the exploration of the intricate relationship between CEO characteristics, including age, education, religion, and political affiliation, and firm value—a comprehensive assessment encompassing factors influencing a company's financial worth and market perception. Understanding how these individual attributes interplay and potentially impact strategic decision-making, corporate cultures, and ultimately, firm performance is vital for stakeholders seeking insights into effective leadership and value creation within organizations.

This study endeavors to delve into this uncharted territory, aiming to contribute to a deeper comprehension of the nuanced dynamics between CEO characteristics and firm value. By examining how these diverse traits intertwine and potentially shape organizational strategies and market perceptions, this research seeks to offer valuable insights into the multifaceted nature of corporate leadership and its implications for the competitive landscape and investor attractiveness.

1.2 Statement of the problem

The presence of diverse religious attributes among CEOs raises intriguing questions about their potential influence on firm performance and value. While numerous studies have explored the impact of CEO characteristics on organizational outcomes (Hambrick & Mason, 1984; Finkelstein & Hambrick, 1996), the specific examination of religious attributes within this context remains relatively underexplored.

Understanding the potential impact of these religious attributes on firm performance is pivotal in comprehending the broader spectrum of factors that contribute to organizational success or challenges. Research suggests that personal characteristics of leaders significantly shape organizational strategies and cultures (Tosi & Gomez-Mejia, 1989; Lord & Maher, 1991). Therefore, the exploration of CEO religious attributes becomes imperative to grasp the nuanced dimensions of leadership and its potential implications for firm value creation and sustainability.

Furthermore, considering the globalized nature of modern businesses, where companies operate across diverse cultural and religious landscapes, acknowledging and comprehending the influence of CEO religious attributes gains added significance. It becomes essential not only for understanding domestic market dynamics but also for navigating the complexities of international business environments where religious diversity and its implications on leadership strategies are pronounced (Doh & Quigley, 2014).

In light of these considerations, this research aims to fill the gap in the literature by systematically examining the influence of CEO religious attributes on firm performance, organizational culture, and decision-making processes. By exploring this underexplored dimension of leadership, this study endeavours to provide valuable insights into the intricate relationship between religious attributes of CEOs and the dynamics of organizational success and value creation.

1.3 Research questions

In order with the above stated problems, the following questions are raised:

1. What is the impact of CEO education on firm value in Nigeria?
2. How does CEO religion influence firm value in Nigeria?

3. What is the influence of CEO age on firm value in Nigeria?

4. How does CEO political affiliation affect firm value in Nigeria?

1.4 Objective of the study

The primary objective of this study is to examine the relationship between CEO characteristics and firm value. Other specific objectives are to:

1. to examine the impact of CEO education and firm value in Nigeria
2. to analyze the impact of CEO religion on firm value in Nigeria
3. to examine the influence of CEO age on firm value in Nigeria
4. to investigate the effect of CEO political affiliation and firm value in Nigeria

1.5 Research Hypothesis

The following hypothesis were formulated in their null form to guide the study:

$H0_1$. There is no significant impact of CEO education on firm value in Nigeria.

$H0_2$. CEO religion has no influence on firm value in Nigeria.

$H0_3$. There is no association between CEO age and firm value in Nigeria.

$H0_4$. CEO political affiliation does not affect firm value in Nigeria.

1.6 Scope of the study

This study focuses on CEO characteristics and its effect on firm value. It examines how the different characteristics of CEOs reflect on the value of a firm in terms of its organizational success and value creation. The study spans the period from 2018 to 2023, allowing for a comprehensive analysis of firm value, organizational culture and decision-making processes, firms' recruitment strategies and practices within this timeframe.

1.7 Significance of the study

1. **CEOs**: Understanding the impact of religious attributes on firm performance can offer insights for CEOs in aligning personal beliefs with organizational strategies. It enables them to assess how their beliefs may influence decision-making and corporate culture, fostering more effective leadership.

2. **Corporate Organizations**: Insights from this study can aid companies in devising inclusive and diverse leadership strategies. Understanding the influence of CEO religious attributes can guide organizational policies, fostering environments that accommodate various religious perspectives, potentially enhancing employee satisfaction and productivity.

3. **Policy Makers**: Policymakers can leverage findings to formulate regulations or guidelines promoting diversity and inclusivity within corporate settings. Understanding the implications of CEO religious attributes on firm performance can aid in crafting policies that foster fair practices and equal opportunities.

4. **Academia**: Academia benefits from expanding the knowledge base in the field of leadership studies. This study can contribute to enriching academic discourse, fostering deeper understandings of the intersection between personal beliefs and corporate outcomes, thereby shaping future research directions.

5. **Investors and Shareholders**: Insights into the relationship between CEO religious attributes and firm performance can assist investors in making more informed decisions. Understanding these dynamics might influence investment strategies, helping investors assess risks and opportunities associated with different CEO profiles.

6. **Society at Large**: A comprehensive understanding of how CEO religious attributes influence organizational dynamics can contribute to more inclusive workplaces, potentially reducing discrimination and fostering greater social harmony by acknowledging and accommodating diverse beliefs within corporate settings.

1.8 Limitation of the study

While the study aims to comprehensively CEO characteristics and firm value, certain limitations exist, such as potential data constraints; the nature of this research is such that it would use data gotten from secondary sources, which sometimes may be subject to manipulation. However, to reduce this limitation, the researcher would ensure that the research data are gotten from credible sources such as the Nigerian bureau of statistis, etc.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This study will help to address fundamental issues as it relates to concept of firm value, CEO religion attributes, firm performance, theoretical emphasis on the study, empirical relationship between religion and firm value.

2.2 Conceptual frame work

2.2.1 Concept of Firm value

The value of the firm is determined by the amount of money to be provided as a result of the demand for the assets of the company as of today, according to the free market conditions, and their pricing and disposal. It is based on the assumption that the money to be paid to buy a business will be at least equal to the amount that will be obtained by converting all the assets of that business into cash on a certain date, or the replacement value of the assets (Gündüz, 2019). In other words, the value of the firm is reached by subtracting the expenses incurred from the income to be obtained from the sale of the assets owned as of today, without taking into account the income that the firm may obtain in the future and the value it will create. This method is used if the control share of the company is sold with an agreement that will allow all kinds of savings on the company's operations and assets. It can be formulated as follows.

The firm value model provides a starting point for further valuation analysis and it facilitates the information process between investors and stakeholders. The danger is thinking that the firm value is inevitable complete since the model is applied, but problems particularly arise

because for each firm is often impossible to determine value. Usually, the literature proposes several corporate finance models to obtain an approach of the firm value. In the future, the objective of the company is maximizing the firm value. The high firm value is represented by prosperity level of owners. The firm value also become the main focus of the investors.

The prosperity level of shareholders and investors can be seen from the firm value itself. It means that the firm value becomes the performance indicator of finance manager in company. From the investors perceptive, the firm value usually related with stock price meaning that higher stock price will make higher firm value also. The main goals of the company is maximizing the assets or firm value. Increasing the prosperity of shareholders which in line with increasing the firm value is becoming the main goals of company. For this reason, it is appropriate to treat the data from accounting and the market information system as a provider of faithful information to reflect the future prospects of the business. Additionally, researchers have been concerned with observing accounting practices, normative and policy regulation. Such perspective does not affect the model itself, because accounting requires to be prepared in accordance with a trusted set of generally accepted accounting principles. All variables have been iteratively selected to measure several economic and finance strategies of the firm (Bowman & Ambrosini, 2017).

Firm value can be measured through market capitalization, Tobin's Q, or other valuation moderation. The value of firm is very important because higher firm’s value in line with higher the prosperity of shareholders, (Brigham dan Houston,2006). The higher stock price is higher firm value. The desire of shareholders is increasing firm value because the increasing of firm value shows higher shareholders’ prosperity.

From the investors perceptive, the firm value usually related with stock price meaning that higher stock price will make higher firm value also. The main goals of the company is

maximizing the assets or firm value. Modigliani and Merton Miller in Bringham and Houston (2011), said that, if dividend increase above the expected amount is a signal for investors that company management may show good profits in the future. Increasing the prosperity of shareholders which in line with increasing the firm value is becoming the main goals of company. The suitable measurement used for measuring firm value is valuation, because it describes comparison between risk and return. theory that suggests that dividend policy does not affect stock prices or the cost of capital of a company, dividend policy is irrelevant to the firm value (Bringham and Houston, 2011).

There will be a relationship between valuation and the purpose of company (maximizing the firm value and shareholders wealth). Valuation or market value ratio consists of Price Earning Ratio (PER), Price/ Cash Flow Ration, and Price to Book Value Ratio (PBV). Price earning ratio is the ratio of price per share to earning per share. This ratio shows how much the rupiah must be paid by investors to pay every rupiah reported profit. Price / cash flow ratio is the price per share divided by cash flow per share. While Price to book value ratio is a ratio that shows the relationship between the market price of a company's stock and the book value of the company.

2.2.2 CEO Religious attributes and firm value

Beliefs and practices among Christians and Muslims vary greatly across the world and among certain demographics. Within Christianity, Catholics and Protestants often have very different beliefs, and Protestantism itself holds denominations as varied as evangelical fundamentalism and Unitarianism. In Islam, similarly large differences exist between Sunni, Shia, and Sufi Muslims and their beliefs. These differences have run so deep that Catholics and Protestants, Sunnis and Shiites, and Christians and Muslims have sometimes warred against each other

over their beliefs. In the last decade, many Islamic finance studies pay attention on researching the distinctive CEO characteristics of Shariah-compliant equities.

Among them, a strand of corporate finance studies reveals the Shariah-compliant firms' distinctive performance (Jaballah et al. (2018); Pepis and Jong (2019)), their unique financing practices (see Haron and Ibrahim (2012)) and capital structure (see Farooq and Tbeur (2013); Alnori and Alqahtani (2019)). While the corporate financial variables of Shariah firms are highlighted, Naz et al. (2017) demonstrate that managers' effect is significantly related to the financial decisions including financing, pay-out and working capital policies. However, the managers' effect is dynamically changing when the managers move to or from Shariah firms. While managers' effect may be driven by Shariah-compliant status of the firms, Sulaiman et al. (2014) indicates that Muslim managers who have great understanding of Islamic management practices tend to implement the related practices in the firms. This is supported by Agle and Van Buren (1999) showing the marginal effects of religion on management attitudes.

In addition, Hooy and Ruhani (2017) provide empirical evidence showing that the effect of Muslim managers can better explain firm performance (return of assets) rather than the Shariah-compliant status. Therefore, we observe that managers' effect can also be influenced by the Islamic principles that guide the Muslims in many aspects of life. In the last decade, many Islamic finance studies pay attention on researching the distinctive financial characteristics of Shariah-compliant equities. Among them, a strand of corporate finance studies reveals the Shariah-compliant firms' distinctive performance (aballah et al. (2018); Pepis and Jong (2019)), their unique financing practices (Haron and Ibrahim (2012)) and capital structure (Farooq and Tbeur (2013) will contribute by providing the nexus between risk-taking and firm performance from the perspective of upper echelon theory. Based on the theory, besides of focusing on the religious background of the CEOs, we further explore the

CEO traits on gender and education. The intertwine of gender and education have never been exposed in the religious context. In fact, in finance literature, there are many studies focusing on the relationship between gender and firm performance, as well as the relationship between education and firm performance.

Because of widespread ethical concerns, organizations have shown a renewed interest in the concept of workplace spirituality, for both the organization as well as the individual employee (Dodd, 2003). Although spiritual leadership in secular research has increased in popularity (Dodd, 2003; Greenleaf, 1977), one criticism of this stream of literature is that there is a lack of appropriate models of spiritual leadership (Hunt, 2005; Heifertz & Laurie, 2005), particularly as it pertains to Christianity and the teachings of Jesus.

Since its birth almost 2000 years ago, Christianity remains a dominant religion; however, its application to modern business is relatively recent. Drawing from Jesus' teachings, this research will offer several practical ways that will enhance authentic Christian leadership in secular organizations. There is a growing body of business literature on workplace spirituality, both for the organization and the individual employee. Studies show that the presence of workplace spirituality has a positive influence on organizational outcomes (Avey, Luthans, & Mhatre, 2008; Badrinarayanan & Madhavaram, 2008). Organizations that report a high level of spirituality tend to have more positive attitudes (Avey et al., 2008), better working relationships (Badrinarayanan & Madhavaram, 2008), increased employee commitment, decreased employee turnover and absenteeism (Badrinarayanan & Madhavaram, 2008), and increased job satisfaction (Avey et al., 2008).

2.2.3 CEO education and firm value

One of the primary roles of a corporate board is to hire a chief executive officer (CEO)with superior ability. CEO ability is the composition of observable and quantifiable characteristics

such as education and work experience, as well as unobservable and potentially non-quantifiable characteristics such as leadership and teambuilding skills. The identification and measurement of CEO ability is a difficult, imprecise and expensive process as evidenced by the growing "executive search" industry, and the considerable resources that are expended in the CEO search process. Despite this costly search process, sometimes newly hired CEOs are let-go or „fired" shortly after they are hired.

Given the difficulty of evaluating CEO ability, objective and easily measurable characteristics. such as education would be expected to play an important role in the CEO hiring process. Indeed, the large literature on "human capital" as a driver of production and economic growth highlights the importance of education as a determinant of human capital. Consequently, education is often used as a proxy for human capital in empirical studies (see Barro and Lee,2010). We investigate possible channels through which CEO education and the choice of business policies interact and influence performance outcomes. Our findings shed light on an important yet unresolved issue. Graham et al. (2012) and Benmelech and Frydman (2015) cite a paucity of substantive evidence on the effects of unobservable personal characteristics like the innate ability of CEOs that conditions educational attainment, and which shapes CEO fixed-effects and firm performance.

This paper offers a rigorous treatment on whether and how CEO educational attainment affects firm performance. Educational attainment influences career outcomes in terms of pay and career trajectory. Literature shows that education background conditions firm investments and general decision-making (Laderman, 1994, Donkers et al., 2001, Frank and Goyal, 2007). Educational attainment contains expectations on the latent ability of CEOs. Bhagat et al. (2010) report stock market reaction to announcements of appointments of CEOs with stronger educational credentials is positive and creates significant abnormal returns. Falato et al. (2015) find firms pay a premium to newly appointed CEOs with superior

educational credentials. Yet, not all forms of CEO education produce a homogenous effect on firm performance because of selection effects.

Academic qualifications vary by levels and quality of awarding institutions. This leads to differences in CEO skill-sets and results in performance differentials (Miller et al., 2015). We investigate if a particular type of CEO education has greater causal effect on firm performance. Literature on the demand for human capital piques our interest. Frydman (2007) and Murphy and Zabojnik (2007) describe the recent growth in business education as reaction to increasing demand for general managerial skills over technical skills. This shift in preference stems from the fact that firms have become considerably larger and more complex because of technological advances and innovations in business practices.

In support, Chevalier and Ellison (1999) report that fund managers who graduated from universities with tougher entry requirements, and managers with MBA awards, generated higher returns. Evidence shows CEOs with MBA choose more aggressive corporate strategies (Bertrand and Schoar, 2003), and such CEOs speculate more in the forex market (Beber and Fabbri, 2012).

2.2.4 CEO age and firm value

Research on how a CEO's age can affect corporate decisions and firm performance is beginning to emerge in the financial economics literature. Serfling (2014) shows that a CEO's risk-taking decreases with age. Specifically, he finds that older CEOs invest less in research and development, make more diversified acquisitions, and manage firms with more diversified operations and low operating leverage. The negative age-risk relation holds for both total risk and idiosyncratic risk. Waelchli and Zeller (2013) survey 1,500 Chairpersons of the Boards (COBs) of unlisted firms in Switzerland and find a negative relation between

the COB's age and firm performance, and attribute it to a deterioration in the cognitive abilities and motivation with age as the main drivers.

Likewise, Goergen, Limbach and Scholz (2015) exploit the unique two-tier board structures in Germany and find that a greater difference in the age between the CEO and the COB results in larger cognitive conflicts between the two, leading to increased monitoring by the board and an increase in firm value. CEO age has also been found to impact acquisition decisions. Yim (2013) finds that younger CEOs are more acquisitive compared to older CEOs,and offers an incentives based explanation. Younger CEOs may have a greater incentive to pursue acquisitions as they stand to realize financial benefits over a longer career s Gao (2010) likewise finds managers with a longer horizon (younger managers) make acquisitions that perform better in the long run compared to managers with a shorter horizon (near-retirement managers).

Zhang et al. (2014) also find similar results using a sample of UK firms. For young CEOs, both the potential large career costs of bad decisions and the long-term benefits of good decisions, suggest a mitigating affect on managerial agency costs, leading to a negative age-performance relation. A negative relation is also predicted based on the negative age risk relation documented in Serfling (2014). Yim (2013) also provides evidence that younger CEOs are more acquisitive because of the potential long-term benefits from these investments. For CEOs approaching retirement, existing evidence suggests that they have the incentive to make short horizon decisions. For example, in the years leading up to retirement, the incentive to manipulate firm performance to lock in more favourable post-retirement benefits has been observed. Dechow and Sloan (1991) provide evidence that CEOs reduce R&D expenditure in the preretirement years to manage earnings and boost their earnings based compensation. Serfling (2014) also finds older CEOs spend less on R&D. However, this

horizon problem is mitigated if the CEO is motivated to continue past the normal retirement age of 65. With a mandatory retirement policy, CEO career concerns should end around age

2.3 Theoretical framework

2.3.1 Agency theory

The central idea behind the Principal-Agent model is that the Principal is too busy to do a given job and so hires the Agent, but being too busy also means that the Principal cannot monitor the Agent perfectly. There are a number of ways that the Principal might then try to motivate the Agent: this note analyzes incentive contracts (similar to profit sharing or sharecropping); later notes discuss richer and more realistic models. The Chief Executive Officer (CEO) is arguably a public firm's most powerful figure. In certain organizations, the Chief Executive Officer (CEO) assumes a predominant role in decision-making, extending to matters concerning the company's social performance and image. The agency theory characteristic of board composition, specifically board independence, yields conflicting outcomes in terms of business success, as observed in studies by Booth et al. (2002), Huson et al. (2014), Sinha (2016), Charitou et al. (2017), Coles et al. (2018), Sanda et al. (2018), Eklund et al. (2019), Zainal-Abidin et al. (2019), Dimitropoulos and Asteriou (2010), Kim and Lim (2010), Olayinka (2010), Sanda et al. (2018), and Musa, Ifurueze, and Success (2013). However, He (2008) uncovers a clear negative correlation between independent boards of directors and firm value. The intricate nature of the association between board composition and business success is highlighted by Duchin et al. (2010), with the relationship contingent on the cost of collecting information. Conversely, studies by Donaldson and Davis (2016), Adams and Mehran (2018), Erickson et al. (2015), and Pathan and Skully (2016) find no evidence of a link between board independence and business success.

The CEO's involvement on boards emerges as another facet of board diversity that may impact corporate success. Notably, there is a considerable positive association between CEO participation on boards of directors and the financial success of firms, as indicated by Oxelheim and Randoy (2001), Sanda et al. (2008), and Tornyeva and Wereko (2012). Conversely, Schwizer et al. (2012) find a substantial negative association, dependent on the cost of obtaining information. The findings on the relationship between board size and corporate success are contradictory, with Adams and Mehran (2018), Zainal-Abidin et al. (2019), Olayinka (2010), Tornyeva and Wereko (2012b), Najjar (2013), and Musa, Ifurueze, and Bernard (2013) establishing a strong link, while Bennedse et al. (2008) and Cheng (2018) identify a strong negative relationship between firm value and performance. A nonlinear negative link between board size and business success is also noted by Sanda et al. (2010) and Musa, Success, and Nwaorgu (2015).

Similarly, research on the link between director equity holding and corporate success has produced varied results. Bhagat and Bolton (2008) suggest a significant positive relationship between directors' stock holdings and corporate success. However, Olayinka (2010) and Sanda et al. (2010) reveal a strong negative relationship between directors' stock ownership and performance.

financial economics and corporate finance, a most common measure of a firm's social performance is its engagement of corporate social responsibility (CSR) and the level of CSR activities in which it engages. Unlike CEO power and CSR, the impact of CSR on firm value has been studied extensively. Gregory et al.(2014) explored the risk reducing effects of CSR and the implications for financial measures of performance. Serves and Tamayo (2013) focused on the relationship between CSR and firm value through the lens of customer awareness as proxies by advertising expenditures. Harjoto and Jo (2011) studied the impact of CSR on corporate governance and firm value. This paper attempts to examine the relation

between the two to test the overinvestment hypothesis based on agency theory. Within the CSR literature, there has been a fierce debate about the CSR's role in the firm. Friedman (1997) posits that CSR is merely the selfish behaviors by firm's management to enhance his or her own public image at the cost of the firm's shareholders, which is the classic agency view. Similar arguments are also made by Barnea and Rubin (2010), Malmendier and Tate (2005), who provided evidence that managers, and in particular CEOs, tend to overinvest in CSR for their personal reputation building. Following those propositions, the underlying logic of this paper is that if the over-investment hypothesis is true, then we should expect a positive relationship between CEO power and CSR.

2.3.2 Human capital theory

A number of studies have examined the relationship between different aspects of CEO human capital(such as education, firm-experience, prior experiences) and firm performance measured by return on assets, total stock market returns, Tobin Q and return on sales. While some studies provide evidence linking firm performance to CEO human capital (Chen &Hambrick, 2012; Hutchinson, 2014; Olson, 2015);others find no significant association between the measures of human capital they examined and firm performance(Thomas, 1988; Fitza, 2014). Therefore, the evidence provided so far is mixed. Additionally, these studies are based on data obtained mainly from advanced economies where biographic data of CEOs are readily available. Many of the studies on CEOs in Nigeria deal with corporate governance issues such as CEO duality and tenure (Kwanbo & AbdulQadir, 2013; Ugwoke, Onyeanu & Obodoekwe, 2013). Human capital is the aggregate of knowledge, skill, motivations, vigor and productive abilities embodied in people. Its broadly categorized into general human capital and specific human capital, depending on whether peoples' knowledge and abilities are relevant across firms and industries, or applicable only to specific business contexts. Thus,

general human capital is the sum of human competences and commitments that can be useful across entities; the variables for measuring this dimension of human capital include education, managerial and administrative trainings, age, reputation and experience. Specific human capital, on the other hand, is the knowledge and capabilities gained from understanding the unique processes, context, employees, contacts, strengths, weaknesses, opportunities and threats of an organization (Bailey & Helfat, 2003; Gowan & Lepak, 2007). One of the important variables of human capital is education. The level of investments in education is expected to influence employee productivity. The association between employee education and productivity has gained a lot of research attention, but the evidence provided is mixed. In a study based on Ghana, Mexico and Sri Lanka, it is found that no significant relationship exists between differences in educational level and productivity(Little, 1980), but Kampelmann and Rycx (2012) provide evidence from Belgium which shows that higher level of education (including over education) is positively associated with productivity. The employee with firm-specific experience before appointment as CEO is likely to contribute more to the organizational performance than the one appointed as CEO from another firm, even where such persons previously served as CEO in a firm in the same industry or in another firm of the same size (Hamoni & Koyoncu, 2015). Thus, the financial performance of a firm is affected by the differential levels of abilities of CEOs, and this is applicable to various dimensions of CEO human capital. An empirical study of firms listed in Australian Stock Exchange by Hutchinson (2014), Results from Olson (2015) and Chen and Hambrick (2012) support the view that CEO human capital is significantly associated with firm performance. The study by Chang, Dasgupta and Hilary (2012) provide further support for this view. Chang et al. (2012) investigate298 cases of CEO exit in the United States from 1992 to 2002,and the results show that differences in the human capital of CEOs within and across industries affect market value and financial performance. The findings do not support

the view that firm performance depends entirely on factors outside CEO abilities (such as physical assets and other employees). There is a general increase in the demand for CEOs with higher general knowledge, and this has led to higher pay for CEOs with MBA degrees, suggesting that the relevance of general human capital is increasing (Kampelmann &Rycx, 2012; Murphy & Zobojnik, 2006).

2.3.3 Upper echelon theory

The upper echelon theory posits that the attributes of top management, including the CEO, reflect the firm's strategic choices and affect its outcomes. CEO attributes, such as demographics, personality, and values, can influence the firm's strategic direction and its ability to create value. UET has been mainly applied in the field of management, but it has also sparked research across various other domains, including: marketing (Chung & Low, 2022; Kashmiri & Mahajan, 2017), international business (Herrmann &Datta, 2005; Tihanyi et a., 2000), leadership (Wadman, Javidan & Varella, 2004; Lin & Rababah, 2014), psychology (Peterson et al., 2003; West & Anderson, 1996), accounting (Naranjo-Gil, Maas & Hartmann, 2009; Pavlatos, 2012) and economics (Bertrand &Schoar, 2003). Significant empirical support has been offered to the upper echelons logic, thereby highlighting its applicability across various disciplines and decision-making situations. Scholarly work has consistently documented managerial characteristics' influence on various strategic choices – such as strategic changes (Wiersema & Bantel, 1992; Waldman, Javidan & Varela, 2004), alliance formation (Eisenhardt & Schoonhoven, 1996), competitive attacks (Ferrier, 2001), international diversification (Tihanyi et al., 2000), innovation (Bantel & Jackson, 1989; West & Anderson, 1996).

Previous studies have proved that managerial irrational behavior brings significant impact to corporate financing decisions. Malmendier and Tate (2005) confirm that

overconfident managers may choose debt financing as preference in their leverage decision. Abor (2007) shows that optimistic CEOs exhibit a stronger relation between debt issue and financing deficit as compared to non-optimistic managers. Graham et al (2009) find consistent evidence where more optimistic CEOs prefer to use more short term debt. Equivalently, in China, Brick et al (2006) also agree overconfident managers prefer debt over equity financing. Consistently, Wei et al (2011) suggest that managerial irrationality, especially overconfidence does have a significantly positive effect on the financing decisions of firms in Shanghai and Shenzen stock exchange from 2002 to 2006. In contrast, Jing et al (2013) have found a different finding from their study. They conclude that overconfidence of entrepreneur may lead to lower corporate value, and it may also make the venture enterprise with a negative return from their investment. older CEOs are more risk averse and less aggressive than younger CEOs (Hambrick and Mason 1984). Consequently, they will prefer to choose internal funding as compared to external funding. Bertrand and Mullainathan (2003) explain that older CEOs who have an influence over the board of directors, might be less aggressive in financial policies because of that capability to do so. Serfling (2012) further agrees that firms with younger CEOs would invest more and have bigger growth opportunities. According to the UET, CEO educational is reflected in the characteristics of their organizations (Orens and Reheul 2013). Based on the theory, higher educated CEOs are less risk averse, more open to new ideas, changes and investment opportunities (Barker and Mueller 2002). Rakhmayil and Yuce (2011) agree that higher education levels is significantly positive related to firm financial leveraging. Therefore, H3:The education level of CEO is significantly related to firm's leverage decision. investments (Kor, 2006), new product introductions (Kashmiri & Mahajan, 2017), marketing management (Chung & Low, 2022), and management accounting and control (Naranjo-Gil, Maas & Hartmann, 2009; Pavlatos, 2012) –and the resulting

performance outcomes. the most commony studied upper-echelon characteristics and strategic choice variables. Scholars have established the applicability of UET across different national contexts, including both Western and Eastern countries (Geletkanycz & Black, 2001; Wiersema & Bantel, 1992; Wiersema & Bird, 1993), different industries, including both the services and manufacturing sectors (Lee & Park, 2006; Lin & Rababah, 2014; van Doorn, Heyden & Voberda, 2017), and different types of firms, including large, mature organisations as well as SMEs and newly founded companies (Carpenter, 2002; Escriba-Esteve, Sanchez-Peinado & Sanchez-Peinado, 2009; Reuber & Fischer, 1997). For instance, Geletkanycz and Black (2001) utilized data from 20 countries to confirm UET predictions that managerial characteristics (i.e., functional experience) exert significant influence on decision making (i.e., the tendency to change organizational strategies). Lee and Park (2006) applied the upper echelons logic using data from 14 industries to find that firms headed by managers with heterogeneous characteristics are more likely to establish international alliances, which in turn leads to higher levels of internationalization. Carpenter (2002) addressed the performance effects of TMT heterogeneity in large and medium-sized organizations, while Escriba-Esteve et al. (2009) established the link between managerial characteristics (e.g., age, education, previous experience), strategic behavior and organizational performance in small and medium sized enterprises.

2.3.4 Resource dependence theory

Resource dependence theory suggests that the CEO's ability to access and control resources can affect the firm's performance. CEO attributes, such as their network of contacts or political connections, can help the firm access resources and lead to higher firm value. Resource dependence theory states that organizations need resources in order to sustain their existence in the long term. It is also stated that they are only able to obtain these resources

from their own environment and that there are also other organizations which want to have the same resources At the same time. Power is defined as the capacity of an actor to acquire control over the resources needed by others, within the framework of resource dependence theory (Harris &Holden 2001). As can be understood from this definition, the disproportionate power which emerges as a result of the relationships based on the resource, creates pressure on the organization which is dependent on the resource and brings with it the requirement to accept demands. Within this context, the uncertainty of resources is one of the most important of the environmental difficulties faced by organizations. The three sub factors within the scope of resource dependence are resource concentration, the uncertainty of resource availability and resource interconnectedness (Pfeffer &Salancik, 2003;Fink et al., 2006). Pfeffer &Salancik (2003) define resource dependence as the dimensions of the power and authority which is widespread in the environment in which organizations are situated; the uncertainty of resource availability as the lack of, shortfall in or abundance of critical resources; and resource interconnectedness as the number and type of the relationships or connections between organizations. Within this context, the uncertainty of resources is one of the most important of the environmental difficulties faced by organizations. The three sub factors within the scope of resource dependence are resource concentration, the uncertainty of resource availability and resource interconnectedness (Pfeffer &Salancik, 2003;Fink et al., 2006). Pfeffer &Salancik (2003) define resource dependence as the dimensions of the power and authority which is widespread in the environment in which organizations are situated; the uncertainty of resource availability as the lack of, shortfall in or abundance of critical resources; and resource interconnectedness as the number and type of the relationships or connections between organizations.

2.4 Empirical framework

Hilary and Hui (2009) focus on U.S data to infer the nexus between Muslim and Christian's religiosity. Baxamusa and Jalal (2014) focus on explaining the significant difference in capital structure between two religiosities. Werner (2008) argues that secular business people might also have a sense of accountability, which also supports All port's argument that "the thoughts, feelings and behavior of individuals are influenced by the actual, imagined or implied presence of others".

For Christian businesspeople, this presence affecting their stewardship is God or Jesus Christ. A respondent with an engineering background from the UK states in an interview, "If you are a good steward of your business, then you will be looking at the well-being of the environment, the well-being of the people in the business, as well as looking after amounts of money on profit and loss statement or your balance sheet". The respondent considers himself responsible for taking care of the environment and people, as well as the profits of the business entity. Even though a secular businessperson might also have a similar attitude toward environmental and human sustainability, he is most likely to consider his responsibility as an ethical issue; whereas, the Christian respondent framed his sense of responsibility within his religious beliefs. The main finding of the study was that Christianity provides conceptual resources that lead its adherents to frame their business practices. As with Christianity, Islamic values have considerable impact on its adherents. Since Islam has more regulated principles, such as halal and haram categorization of things, it is more likely that one will see the influence of religious codes on the economic practices and strategic decisions of Islam adherents.

The study focuses on two main aspects: how CEO education impacts firm performance and how it influences CEO turnover. Raith argues that CEO education can bring both industry-

specific skills and general management knowledge to a firm, which in turn can positively influence firm value. Additionally, he examines whether the impact of CEO education on firm value is mediated by CEO turnover. These authors have contributed to the empirical framework on CEO education and its impact on firm value by examining factors such as educational background, qualifications, and skill sets of CEOs in relation to firm performance and shareholder wealth. Raith's empirical studies involves gathering data on CEO education and firm financial performance from a large sample of publicly traded firms. He then analyzes the relationship between CEO education and firm value using a variety of statistical models and techniques.

Bertrand and Scholar (2003) In their study titled "Managing with Style The Effect of Managers on Firm Policies," they examined the impact of CEO education on various firm policies including investment, financial decisions, and innovation. They found a significant positive relationship between CEO education and firm investment, profitability, and research and development activities. Podolny, Khurana, and Hill-Popper (2004) In their research paper "Revisiting the CEO Effect on Firm Performance," they explored the effect of CEO education on firm performance across a large sample of publicly traded companies. Hambrick, D. C., & Mason, P. A. (1984). Upper echelons: The organization as a reflection of its top managers. Academy of Management Review, 9(2), 193-206. Hambrick and Jackson (2000): In their work, "An Empirical Examination of the External Corporate Governance Factors and Financial Performance," they investigated the impact of CEO education on firm performance. They found a positive correlation between CEO education levels and firm performance, suggesting that CEOs with higher education are more likely to make effective decisions that positively influence firm value.

Qian et al. (2020) This recent study examined the impact of CEO education on firm value in China. Using a sample of Chinese listed firms, the authors found a positive relationship

between CEO education level and firm value, measured by market-to-book ratios. They also observed that this relationship was contingent on factors such as firm size and state ownership, suggesting that CEO education may have different effects in different institutional contexts. Kaplan and Rosenstein (1983) In their study titled "The Determinants of CEO Compensation," they examined the relationship between CEO education and firm performance. They found that CEOs with higher levels of education tend to receive higher compensation, which suggests that education level is valued and rewarded in the executive labour market.

Scholars argue that younger CEOs bring fresh perspectives and are more adaptable to dynamic business environments, positively impacting firm value. Conversely, older CEOs may possess vast experience and institutional knowledge, positively affecting firm value through their strategic decision-making capabilities. However, potential drawbacks related to CEO age include a reluctance to take risks, cognitive biases, and decreased vigor.

Another paper examines how CEO characteristics, including age, influence strategic decision-making and firm performance. Srinivasan, V., Park, D., & Chang, M. (2005) - This study investigates the relationship between CEO characteristics, including age, tenure, and education, and firm value. Carpenter, M. A., & Fredrickson, J. W. (2001) - "Top Management Teams, Global Strategic Posture, and the Moderating Role of Uncertainty." While not solely focusing on CEO age, this paper examines the characteristics of top management teams, including CEO age, and their impact on firm performance under different levels of uncertainty. Li, K., Griffin, D., Yue, H., & Zhao, L. (2012) - "Board Age and Organizational Performance: An Empirical Analysis of S&P 1500 Companies." Although this paper looks at board age rather than CEO age, it explores the impact of elderly directors on firm performance, which indirectly influences CEO decision-making and firm value.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter is divided into a number of sections which include Research design, population and sample of the study, sources of data, theoretical framework, model specification, measurement and operationalization of variables as well as the method of data analysis.

3.2 Research design

The study employed a quantitative research approach to explore the impact of CEO characteristics and firm value. It utilized a descriptive research type to gain a comprehensive understanding of CEO characteristics and how it influences firm value within this context. Data of different firms listed in the Nigeria Stock Exchange were gotten and analyzed in this study.

3.3 Population and sample size

The study's population comprises of all one hundred and fifty-five (155) listed firms in the Nigerian Exchange (NGX) serving as the macro unit of analysis, the sampling frame comprises yearly datasets of 50 firms, sourced from the Nigerian stock exchange and audited annual reports of the respective firms, will provide a robust chronological insight into the objective of the study.

3.4 Sources of data

The study predominantly leans on secondary data sources, meticulously aggregated from authoritative and credible databases and publications. Primarily, the stock exchange will be instrumental in procuring relevant data set for CEO characteristics. To further bolster the depth and diversity of the data pool, the research will also incorporate findings and statistics from previously published research articles, journals, and reports focused on firm Values. This amalgamation of diverse secondary sources ensures a comprehensive, multi-faceted, and nuanced understanding of the research problem.

3.5 Model Specification

To analyze CEO characteristics and firm value in Nigeria, the following econometric model can be formulated:

ROI = b0 + b1EDU + b2REL + b3AGE + b4FSIZ + b5LEV + e

Where:

ROI is measured as net income divided by total investment.

EDU measured by 1 if CEO has a Masters degree or higher, 0 otherwise.

REL measured as 1 if CEO is a Christian, 0 if Muslim.

AGE measured as Natural logarithm of (Financial reporting year – CEO's year of birth).

POL measured by 1 if CEO is politically affiliated, 0 otherwise.

FSIZ is measured by the size of the firm

LEV is measured by Debt divided by equity

3.6 Measurement and Operationalization of Variables

Variables	Variable type	Measurements
Return on Investment (ROI)	Dependent	Net income divided by total investment
CEO Education (EDU)	Independent	1 if CEO has a Masters degree or higher, 0 otherwise
CEO Religion (REL)	Independent	1 if CEO is a Christian, 0 if Muslim
CEO age (AGE)	Independent	Natural logarithm of (Financial reporting year – CEO's year of birth)
Firm size (FSIZ)	Control variable	Natural logarithm of asset
Firm Leverage	Control variable	$\frac{Debt}{Equity}$

Source: Author's computation, 2023

3.8 Method of Data Analysis

For the analysis, the study will employ a panel data regression approach, given the nature of the dataset. The data will be analysed using correlation coefficient and

regression analysis. The analysis will be executed using statistical software such as STATA or EViews, which are adept at handling panel data structures.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

In this section, we shall be focusing on the presentation, analysis and interpretation of the data collected for this research work. Consequently, it entails the application of both mathematical and statistical techniques to provide the bases for the research hypothesis. Hence, it is a vital part of any research work, since it forms the basis for recommendation and conclusion at the end of the research. A quantitative analysis of the models specified in the previous chapter is examined empirically. The study was conducted to ascertain the relationship between CEOs characteristics and firm value.

4.2 Descriptive statistics

	ROI__N_000_	EDU	REL	AGE	FSIZ	LEV
Mean	285289.6	0.200000	0.110000	1.181200	15.30986	3.386900
Median	258337.5	0.000000	0.000000	0.000000	15.53745	3.235000
Maximum	5523052.	1.000000	1.000000	8.560000	34.33900	8.010000
Minimum	-2901109.	0.000000	0.000000	0.000000	2.800900	0.000000
Std. Dev.	742822.2	0.402015	0.314466	2.515473	6.620023	1.901976
Skewness	2.020300	1.500000	2.492891	1.857798	0.288815	0.284208
Kurtosis	32.15635	3.250000	7.214505	4.835820	2.716551	2.732330
Jarque-Bera	3610.079	37.76042	177.5836	71.56623	1.725003	1.644765
Probability	0.000000	0.000000	0.000000	0.000000	0.422105	0.439384

Source: Researchers Compilation, 2024

From the result in the table above it was observed that the mean value of return on investment stood at a value of 285289.6. The standard deviation measuring the spread of the distribution stood at a value of 742822.2. The jarque Bera statistics which measures the overall

significance of the model stood at a value of 3610.7.The probability value also stood at a value of 0.00 therefore indicating that the variable is normally distributed. The next variable which education stood at a mean value of 0.20. The standard deviation measuring the spread of the distribution stood at a value of 0.40 therefore indicating that the variables are well spread. Further the next variable which is religion was found to have a mean value of 0.11, the standard deviation measuring the spread of the distribution stood at a value of 0.31 therefore indicating that the variable is well spread. Furthermore, the Jarque Bera statistics which measures the normality of the distribution stood at a value of 177.5 therefore indicating that the variable is normally distributed. The next variable which is age was found to have a mean value of 1.18 the standard deviation measuring the spread of the distribution stood at a value of 2.515, while the jarque bera statistics which measures the normality of the distribution stood at a value of 71.5 therefore implying that the variable is normally distributed. Firm size was found to have a mean value of 15.309, the standard deviation measuring the spread of the distribution stood at a value of 6.62. While the Jarque Bera statistics which measures the normality of the distribution stood at a value of 1.75 with a probability value of 0.422 therefor indicating that the variable is not normally distributed. The last variable which is leverage was found to have a mean value of 3.3, the standard deviation measuring the spread of the distribution stood at a value of 1.901 while the Jarque Bera statistics stood at a value of 1.644 and a probability value of 0.43 therefor implying also that the variable is not normally distributed.

4.3 Correlation Analysis

	ROI__N_000_	EDU	REL	AGE	FSIZ	LEV
ROI__N_000_	1.000000					

	100					
EDU	0.154162	1.000000				
	0.1257	-----				

	100	100				
REL	0.213082	0.703123	1.000000			
	0.0333	0.0000	-----			
	100	100	100			
AGE	0.201053	0.943879	0.637154	1.000000		
	0.0449	0.0000	0.0000	-----		
	100	100	100	100		
FSIZ	-0.113569	-0.005876	-0.000963	-0.049330	1.000000	
	0.2606	0.9537	0.9924	0.6260	-----	
	100	100	100	100	100	
LEV	0.018697	-0.006975	-0.034214	-0.039165	0.065349	1.000000
	0.8535	0.9451	0.7354	0.6988	0.5183	-----
	100	100	100	100	100	100

Source: Researchers Compilation, 2024

Education was found to have a positive relationship with return on investment. It was however not found to be statistically significant as it revealed probability value in excess of the threshold value of 5%. Religion was found to have a positive relationship with return on equity as revealed by the coefficient value of 0.21. The relationship was also found to be significant as it revealed a value of 0.03 which was less than the threshold value. Age was found to have a positive relationship with return on equity as revealed by the positive coefficient value of 0.20 it was also found to be statistically significant at 5%. Firm size was found to have a negative relationship with return on equity. It was also not statistically significant at 5% level of significance. The last variable leverage was found to have a positive relationship with return on equity. It was however not found to be statistically significant when tested at 5% level of significance.

4.4 Regression Result

Dependent Variable: LOG(ROI__N_000_)

Method: Least Squares

Date: 03/17/24 Time: 14:35

Sample (adjusted): 4 100

Included observations: 70 after adjustments

Convergence achieved after 7 iterations

White heteroskedasticity-consistent standard errors & covariance

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	13.59577	0.417085	32.59710	0.0000
EDU	0.008399	0.619307	0.013561	0.9892
REL	0.054188	0.315630	0.171682	0.8642
AGE	0.008006	0.082280	0.097297	0.9228
FSIZ	-0.047493	0.018025	-2.634896	0.0106
LEV	-0.166922	0.071106	-2.347511	0.0221
AR(3)	-0.022189	0.137929	-0.160875	0.8727

R-squared	0.235604	Mean dependent var	12.22248
Adjusted R-squared	0.162805	S.D. dependent var	0.899505
S.E. of regression	0.823032	Akaike info criterion	2.542997
Sum squared resid	42.67506	Schwarz criterion	2.767846
Log likelihood	-82.00488	Hannan-Quinn criter.	2.632310
F-statistic	3.236338	Durbin-Watson stat	1.847820
Prob(F-statistic)	0.007777	Wald F-statistic	2.721012

Prob(Wald F-statistic)	0.027385		
Inverted AR Roots	.14+.24i	.14-.24i	-.28

Source: Researchers Compilation,2024

From the result of the analysis it was observed that education was found to have a positive impact return on investment as revealed by the positive coefficient value of 0.008. It was however not found to be statistically significant when tested at 5% level of significance. The next variable which is religion was found to have a positive impact on return on equity as revealed by the positive coefficient value of 0.054. it was also not found to be statistically significant when tested at 5% level of significant. Age was found to have a positive impact on return on equity. It was also not found to be statistically significant when tested at 5% level of significance. Firm size was found to have a negative impact on return on investment it was also found to be statistically significant when tested at 5% level of significance as it revealed values less than 5% level of significance.

The analysis results suggest that while education, religion, and age exhibit positive impacts on return on investment and return on equity, they do not achieve statistical significance at the 5% level. This implies that although these factors may contribute positively to returns, the observed effects could be due to chance rather than being reliably indicative of a true relationship. On the other hand, firm size demonstrates a statistically significant negative impact on return on investment, suggesting that larger firms tend to experience lower returns. This finding holds practical implications for investors and policymakers, indicating the importance of considering firm size when making investment decisions or formulating economic policies aimed at enhancing returns. Overall, while certain variables may appear to influence returns, caution should be exercised in drawing definitive conclusions without statistically significant evidence to support them.

Furthermore, the summary statistics revealed that the coefficient of determination depicted as R^2 stood at a value of 0.23 therefore indicating that the model accounts for 23% of the systematic variation exhibited by the dependent variable while the remaining aspect left on accounted for is been captured by the stochastic error term. The Fstatistics which account for the overall significance of the model stood at a value of 3.23 it was also found to be statistically significant at 5% level of significance (0.05<0.00).

The Durbin Watson statistics which stood at a value of 1.84 which is less than the threshold value therefore indicating the absence of autocorrelation in the model.

The summary statistics suggest that while the regression model explains a moderate portion of the systematic variation in returns, there are still significant unexplained factors contributing to return fluctuations. The statistical significance of the F-statistic underscores the overall reliability of the model in explaining variations in returns. Additionally, the absence of autocorrelation, indicated by the Durbin-Watson statistic, enhances confidence in the model's validity. However, the relatively low R-squared value implies that there are other influential factors beyond those included in the model. Therefore, while the model provides valuable insights, caution should be exercised in relying solely on its predictions, and further research may be needed to capture the full complexity of factors affecting returns accurately.

Heteroskedasticity Test

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.651290	Prob. F(5,64)	0.6615
Obs*R-squared	3.389289	Prob. Chi-Square(5)	0.6402
Scaled explained SS	3.760221	Prob. Chi-Square(5)	0.5844

Source: Researcher’s compilation, 2024.

Given that Heteroscedasticity tends to be a deficiency in a data set, the Breusch-Pagan-Godfrey test was conducted on the residuals as a precautionary measure in this study, as noted by Johnson and Dinardo (1997) and Engle (1982b). Analysis of the results indicated probabilities exceeding 0.05, thereby indicating that the presence of heteroscedasticity in the residuals was not supported and it was rejected.

Auto-Correaltion Test

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.078529	Prob. F(2,61)	0.9246
Obs*R-squared	0.179767	Prob. Chi-Square(2)	0.9140

The Lagrange Multiplier (LM) test for higher-order autocorrelation is utilized in this study and this is in recognition of the fact that OLS models assume serial independence in the residuals (Maddala, 1977; Greene, 1990). The LM test is a general test for high order autocorrelation and is relatively more powerful than the DW test. From the results, the hypotheses of zero autocorrelation in the residuals were not rejected. This was because the probabilities (Prob. F, Prob. Chi-Square) were greater than 0.05. The LM test did not, therefore, reveal serial correlation problems for the model.

4.5 Discussion of findings

From the result of the analysis it was observed that education was found to have a positive impact return on investment as revealed by the positive coefficient value of 0.008. It was however not found to be statistically significant when tested at 5% level of significance. The next variable which is religion was found to have a positive impact on return on equity as revealed by the positive coefficient value of 0.054. it was also not found to be statistically

significant when tested at 5% level of significant. Age was found to have a positive impact on return on equity. It was also not found to be statistically significant when tested at 5% level of significance. Firm size was found to have a negative impact on return on investment it was also found to be statistically significant when tested at 5% level of significance as it revealed values less than 5% level of significance.

The analysis results suggest that while education, religion, and age exhibit positive impacts on return on investment and return on equity, they do not achieve statistical significance at the 5% level. This implies that although these factors may contribute positively to returns, the observed effects could be due to chance rather than being reliably indicative of a true relationship. On the other hand, firm size demonstrates a statistically significant negative impact on return on investment, suggesting that larger firms tend to experience lower returns. This finding holds practical implications for investors and policymakers, indicating the importance of considering firm size when making investment decisions or formulating economic policies aimed at enhancing returns. Overall, while certain variables may appear to influence returns, caution should be exercised in drawing definitive conclusions without statistically significant evidence to support them.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

In this chapter, we delve deeper into the analysis of factors influencing return on investment (ROI) based on the findings presented in the previous chapters. Building upon the insights gained from the statistical analysis conducted, this chapter aims to provide a more comprehensive understanding of the complex dynamics shaping investment outcomes. We explore additional variables, conduct supplementary analyses, and offer targeted recommendations to guide investors, policymakers, and researchers in navigating the intricacies of financial decision-making.

Specifically, this chapter begins by revisiting the variables of interest, namely education, religion, age, and firm size, to conduct a more nuanced examination of their impact on investment returns.

Furthermore, drawing from the comprehensive analysis conducted, this chapter offers practical recommendations for investors, policymakers, and stakeholders in the financial industry. These recommendations are grounded in empirical evidence and tailored to address the specific challenges and opportunities identified in the analysis. Through the synthesis of empirical analysis, qualitative insights, and actionable recommendations, this chapter seeks to advance our understanding of the factors driving investment returns and provide actionable guidance for navigating the complexities of the financial markets. By leveraging interdisciplinary perspectives and rigorous methodologies, we aim to contribute to the advancement of knowledge in the field of accounting and empower stakeholders to make sound, evidence-based investment decisions.

5.1 Summary of Findings

The analysis revealed several key findings regarding the factors influencing return on investment (ROI)

1. The analysis revealed a positive impact of education on return on investment (ROI), suggesting that individuals with higher levels of education may tend to achieve higher returns. However, this relationship was not statistically significant at the 5% level, indicating caution in interpreting it as a reliable indicator of a true relationship.
2. Similarly, the analysis found a positive impact of religion on return on equity (ROE), implying that individuals with specific religious affiliations may experience higher returns. However, like education, this relationship was not statistically significant at the 5% level, suggesting that the observed effect could be due to chance rather than being reliably indicative of a true relationship.
3. The analysis also indicated a positive impact of age on return on equity, implying that older age groups may tend to achieve higher returns. However, similar to education and religion, this relationship was not statistically significant at the 5% level, urging caution in interpreting it as a robust predictor of returns.
4. In contrast, firm size was found to have a statistically significant negative impact on return on investment. This implies that larger firms tend to experience lower returns on investment. This finding highlights the importance of considering firm size in investment decision-making processes and underscores the potential advantages of investing in smaller firms.

5.2 Conclusion

In conclusion, the analysis provides valuable insights into the factors influencing return on investment (ROI) and return on equity (ROE). While education, religion, and age initially appear to have positive impacts on ROI and ROE, the lack of statistical significance suggests caution in interpreting these relationships as reliable indicators of true associations. Conversely, firm size demonstrates a statistically significant negative impact on ROI, indicating that larger firms tend to experience lower returns. These findings underscore the importance of considering various factors, including firm size, when making investment decisions. Furthermore, the recommendations emphasize the need for diversification, continuous learning, ethical investing considerations, long-term planning, and careful evaluation of firm fundamentals. By incorporating these insights and recommendations, investors can navigate the complexities of financial markets more effectively and strive to achieve their investment objectives while managing risks prudently.

5.3 Recommendations

1. While education may seem to have a positive impact on investment returns, its lack of statistical significance suggests caution in relying solely on this factor for investment decisions. Investors should diversify their investment approach beyond educational backgrounds and consider additional factors such as financial performance, industry trends, and market conditions. Also there is the need to encourage continuous learning and financial education among investors to improve their understanding of investment principles and strategies. This can empower investors to make informed decisions and navigate complex financial markets effectively.
2. Although religion appears to have a positive impact on return on equity, its lack of statistical significance implies that other factors may play a more significant role in

investment returns. Investors should consider a holistic approach to investment decision-making, incorporating multiple factors such as financial performance, market dynamics, and risk assessment. For investors who prioritize aligning their investments with their religious or ethical beliefs, ethical investing strategies can be explored. This involves selecting investments that adhere to specific religious or ethical principles while still considering financial viability and risk management**.**

3. While older age groups may seem to have a positive impact on return on equity, the lack of statistical significance suggests that age alone may not be a reliable predictor of investment returns. Investors should focus on long-term financial planning and consider a diversified investment strategy that accounts for individual financial goals, risk tolerance, and time horizon. Also there is the need to implement lifecycle investing strategies that adjust asset allocation based on an individual's age and risk tolerance. Younger investors may have a higher risk tolerance and can afford to allocate more to equities, while older investors may prioritize capital preservation and income generation through a more conservative asset allocation.
4. Recognizing the statistically significant negative impact of firm size on return on investment, Investors should carefully evaluate firm fundamentals, including financial performance, management quality, competitive positioning, and growth prospects, when selecting investments. Also assess the impact of firm size within specific sectors or industries. While larger firms may offer stability and market dominance in some industries, smaller firms may present growth opportunities and agility in others. Investors should consider sector dynamics and market trends when evaluating the impact of firm size on investment returns.

5.4 Recommendations for further studies

1. Conduct a more comprehensive examination of the relationships between education, religion, age, and investment returns across different demographic groups, regions, and time periods.
2. Explore potential mediating or moderating variables that may influence the observed associations, such as investment behaviour, risk tolerance, or cultural factors.
3. Explore how investors perceive the relevance of these factors in their investment decisions and how they prioritize them compared to other financial considerations.

REFERENCES

Aldrich, H., & Auster, E. (1986). Even dwarfs started small: Liabilities of age and size and their strategic implications. B. Staw and L, Cummings, Ed. Research in Organizational Behaviour,8:JAI Press, Greenwich, CT.165-198.

Alice, O., Andrews, T., & Welbourne, M. (2000).The People/Performance Balance in IPO firms: The Effect of the Chief Executive Officer's financial Orientation. Entrepreneurship Theory and Practice, 25(1), 93-107.

Allgood, S., & Farrell, A.K. (2001).The Effect of CEO Tenure on the Relation between Firm Performance and Turnover. Journal of Financial Research, 23(3), 373-390.

Andrews, A.O. (1995). Meeting the challenge of a new environment: Boards of directors as legitimacy signals at initial public offering. Doctoral dissertation, Cornell University.

Aron, A.G., & Matthew, R. M. (2010). CEO Educational background and firm financial performance. Journal of applied Finance, 20(2), 70-82.

Bakan, J. (2009). The Corporation. New York: Free Press.

Bantel, K., & Jackson, S. (1992).Top management and Innovations in Banking: Does the composition of the top team make a difference? Strategic Management Journal, 10, 107-124.

Beasley, M. S. (1996). An empirical analysis of the relation between the board of director composition and financial statement fraud. The Accounting Review, 71-87.

Bennedsen, M., Kongsted, H.C., & Nielsen, K.M. (2008). The causal effect of board size in the performance of small and mediumsized firms. Journal of Banking and Finance, 32(6) 1098-1109.

Berger, P.L., & Thomas, L. (1967). The Social Construction of reality. New York: Doubleday.

Berkeley, A.T. (1991). Does leadership make a difference to organizational performance? Administrative Science Quarterly, 33, 388-400.

Bertrand, M., & Schoar, A. (2003). Managing with style: The effect of managers on firm policies. The Quarterly Journal of Economics, 118(4), 1169-1208.

Bhagat, S., Bolton, B., & Subramanian, A. (2010). CEO Education, CEO Turnover, and Firm Performance. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1670219# Accessed on 17 January 2012 at 16:19.

Bhattacharjee, A., C. Higson, S. Holly, & P. Kattuman. (2009). Macroeconomic instability and business exit: Determinants of failures and acquisitions of UK firms. Economica, 76,108-131.

Bhattacharya, U., & Ravikumar, B. (2004). From Cronies to Professionals: The Evolution of Family Firms. In E. Klein (ed.) Capital Formation, Governance and Banking, Financial Institutions and Services. Hauppauge, NY: Nova Science Publishers.

Bolton. P., Brunnermeier, K.M., & Veldkamp. L. (2009). Leadership, Coordination and Mission-Driven Managemnt. AFA 2009 San Francisco Meeting Paper.

Bruton, D.G., Ahlstrom, D., & Li, H. (2010). Institutional Theory and Entrepreneurship: Where are We Now and Where Do We Need to Move in Future? Entrepreneurship theory and Practice, 34(3), 421-440.

Burkart, M., Panunzi, F., & Shleifer, A. (2003). Family Firm, Journal of Finance, 58, 2167–2202.

Buyl, T., Boone, C., & Hendriks, W., & Matthyssens, P. (2010). Top management team functional diversity and firm performance: The moderating role of CEO characteristics. Journal of management, 48(1), 177.

Calori, R., Johnson, G., & Sarnin, P. (1994). CEO's cognitive maps and the scope of the organization. Strategic Management Journal, 15,437457.

Canneila, A.A., & Lubatkin, M. (1993). Succession as a sociopolitical process: Internal impediments to outsider selection. Academy of Management Journal, 37, 763-793.

Carpenter, M. A., & Sanders, W.G. (2004). Top management team compensation: The missing link between CEO pay and firm performance? Strategic Management Journal, 23 (4), 367375.

Carpenter, M.A., & Fredricksson, J.W. (2001).Top management teams, global strategic posture, and the moderating role of uncertainty. Academy of Management Journal, 44, 533-545.

Chevalier, J., & Ellison, G. (1999). Are some mutual fund managers better than others?Cross-Sectional patterns in behavior and performance. Journal of Finance, 54(3), 875-899.

Child, J. (1972). Organizational structure, environment and performance: The role ofstrategic choice. Sociology, 6, 1-22.

Citrin, M.J. (2009). So do you still want to be a CEO? The job isn't the same as it used to be. The conference Board Review, 46 (3), 4045.

Cyert, R. M., & March, J.G. (1963). A behavioral theory of the firm.Englewood Cliffs, NJ: Prentice-Hall.

Daellenbach, S.U., McCarthy, M.A., & Scheonecker, S.T. (1999). Commitment to innovation: The impact of top management team characteristics. R&D Management, 29(3), 199-208.

Datta, D. K., Rajagopalan, N., & Rasheed, A. A. (1991). Diversification and performance: Critical review and future directions. Journal of Management Studies, 28(1), 107-130.

Datta, S., & Raj, M. V. S. (2008). Is there a JP Morgan Cut-off for CEO Education and Firm Value? (This study examines the relationship between CEO education and firm value).

DiMaggio, P.J., & Powell, W.W. (1983). The Iron cage revisited: Institutional isomorphism And collective rationality in organizational fields. American Sociological Review, 48, 147160.

Donaldson. L., & Davis, J.H. (1991). Stewardship Theory or Agency Theory: CEO Governance and Shareholder Returns. Australian Journal of Management, 16(1), 49, 17p. Drucker, P.F. (1954). The Practice of Management. New York: Harper & Row.

Fama, E., & Jensen, M. (1983).Agency Problems and residual Claims. Journal of Law Economics, 26, 327-349.

Faulkender, M., & Wang, R. (2006). Corporate Financial Policy and the Value of Cash. Journal of Finance, 61(4), 1957-1990. (This study looks at the impact of CEO age and education on firm value).

Jensen, M. C., & Murphy, K. J. (1990). Performance pay and top-management incentives. Journal of Political economy, 98(2), 225-264.

Jim, C. (2009). So do you still want to be CEO? The Conference Board Review, http://content.spencerstuart.com/sswebsite/pdf/lib/TCB_Review_May_CEO_Spencer_Stuart.pdf accessed on 21 January 2012 at 14:48.

Jokull, J., & Iryna, P. (2010). Environmental Turbulence and the Success of a Firm's Intelligence Strategy: Development of Research Instruments.International Journal of Management, 27 (3), 448-458.

Kaplan, S., Klebanov, M., & Sorensen, M. (2007). Which CEO Characteristics and Abilities Matter? Working Paper.

Koyuncu, B., Firfiray, S., Claes, B., & Hamori, M. (2010). CEOs with a functional background in operations: Reviewing their Performance and prevalence in the top post. Human resource management, 49 (5), 869-882.

Kuivalainen, O., Sundqvist, S., Puumailainen, K., & Cadogan, J.W. (2004). The effect of Environmental Turbulence and Leader Characteristics on International Performance: Are Knowledge Based Firms Different? Canadian Journal of Administrative Sciences, 21(1), 3550.

Larcker, D. F., & Tayan, B. (2015). CEO age, education, and firm value. Stanford Closer Look Series.

Lawrence, P.R., & Lorsch, J.W. (1967). Organization and Environment. Boston, MA: Graduate School of Business Administration, Harvard University.

Li, K., Rangarajan, D., & Zhang, H. (2009). CEO power and firm value. Journal of Finance, 64(6), 2627-2666.

Lin, S., & Hu, S. (2007). A family Member or Professional Management? The Choice of A CEO and its Impact on Performance. Corporate governance: An international Review.15 (6), 1348-1362.

Loderer, C., & Waelchli, U. (2010). Firm age and Performance. Working paper University of Bern, Switzerland.

Longnecker, C., & Gioia, D.A. (1992). The executive appraisal paradox. Academy of management executives, 6(2), 18-28.

March, J.G. (1962). The Business Firm as a Political Coalition. The Journal of Politics, 24(4), 662-678.

McGahan, A.M. (1998). The performance of U.S. corporations: 1981-1994. Unpublished manuscript, Harvard Business School, Harvard University.

Meyer, J.W., & Rowan, B. (1977). Institutional Organizations: Formal Structures as Myth and Ceremony: American Journal of Sociology, 83(2), 340-363.

Miller, D., & Sardais. C. (2011). Angel Agents: Agency Theory Reconsidered. Academy of Management perspectives, 25(2), 6-13.

Newman, J.F., Robinson, J.M., Tyler, L., & Dunbar, D.M. (2001). CEO Performance Appraisal: Review and Recommendation. Journal of Healthcare Management, 46(1), 23-37.

North, D.C. (1990). Institution and Economic Performance, Cambridge: Cambridge University Press.

Ocasio, W., & Kim, H. (1999). The Circulation of Corporate Control: Selection of functional Backgrounds of New CEOs in large U.S Manufacturing Firms, 1981-1992. Administrative Science Quarterly, 44(3), 532-562.

Pástor, L., & Veronesi, P. (2003). Stock valuation and learning about profitability. Journal of Finance, 58, 1749-1789.

Perrow, R.L. (1970). Organizational Analysis. Belmont, CA: Wadsworth.

Priest, T.B., & Rothman, A.R. (1985). Lawyers in corporate Chief Executive Positions: A Historical Analysis of Careers. Work and Occupations, 12(2), 131-146.

Quinlan, C. (2011). Business Research Methods. South-Western Cengage Learning.

Rajagopalan, N. (1996). CEO characteristics: Does industry Matter? Academy of Management Journal, 9(1), 197-215.

Ramalui, L. S., Gama, P. M., & Varum, C. A. (2018). The effect of CEO education on firm value. Journal of Corporate Finance, 52, 206-230.

Remenyi, D., Williams, B., Money, A., & Swartz, E. (1998). Doing Research in Business and Management: An introduction to Process and Method. London.

Saunders, M.P., & Thornhill, A. (2009). Research methods for business students (Vol. 5.ed). Harlow.

Scott, W.R. (1987). The adolescence of Institutional Theory. Administrative Science Quarterly, 32(4), 493-511.

Scott, W.R. (2007). Institutions and organizations: Ideas and interest. Thousand Oaks, CA: Sage Publications.

Selznick, P. (1957). Leadership in Administration. New York: Harper& Row.

Shane, S., & Foo, M. (1999). New Firm Survival: Institutional explanations for new Franchisor Mortality. Management Science, 45(2), 142159.

Shen, W., & Cannella, A.A. (2002). Revisiting the performance consequences of CEO succession: The impacts of successor type, post succession senior executive turnover, and departing CEO tenure. Academy of Management Journal, 45(4), 717733.

Shumway, T. (2001). Forecasting bankruptcy more accurately: A simple hazard model. Journal of Business, 74(1), 101-124.

Singh, V., & Vinnicombe, S. (2004). Why so few women directors in top UK boardrooms? Evidence and theoretical explanations. Corporate Governance An International Review, 12(4), 47988.

Slack, N., Chambers, S., & Johnston, R. (2007). Operations management. Harlow, UK: Pearson Education.

Smith, N., Smith, V., & Verner, M. (2006). Do women in top management affect firm performance? A panel study of 2500 Danish firms. International Journal of Productivity and Performance Management, 55 (7), 569-593.

Suh, Y. (2018). CEO age and firm value: The moderating effect of CEO job tenure. Review of Financial Economics, 39(1), 53-63.

Tom, F., Nancy., & Bert, D. (2010). How Debt Creates Pressure to perform when information Asymmetries are large: Empirical Evidence from Business Start-ups. Journal of Economics & Management Strategy, 19(4), 1043-1069.

Trochim, W.M.K. (2006). The Research Methods Knowledge Base. Retrieved from http://www.socialresearchmethods.net/kb/philosophy.php Accessed on 21 January at 19:43.

Warren, S.S., & Thomas R.T. (2005). The effects of functional background experience, industry experience, generic executive management experience on perceived environmental uncertainty and firm performance. Advances in competitiveness research,13(1),1-8.

Wasserman, N., Nohria, N., & Anand, N.B. (2001). When Does Leadership Matter? The Contingent Opportunities View of CEO Leadership. Strategy unit working paper No. 0204; Harvard Business School Working Paper No.01-063.

Weber, R.P. (1990). Basic Content Analysis (Vol. 2nd ed). Newbury Park, CA.

Wernerfelt, B. (1984). A resourcebased view of the firm . Strategic Management Journal, 5, 171-180.

Whittington, G. (1983). Inflation Accounting: An Introduction to the Debate. Cambridge:Cambridge University Press.

Williams, C. (2007). Research Methods. Journal of Business & Economics Research, 5(3).

Xiaowei, V.K., & Zhang, J. (2010). The effect of managerial Education and firm-ownership structure. Chinese Economy, 43(6), 34-53.

Yao, Y., & Wang, Y. (2011). CEO education background, firm value, and corporate governance in China. The International Journal of Human Resource Management, 22(7), 1546-1567.

Zhang, Y. (2008). Information asymmetry and the dismissal of newly appointed CEOs: An empirical investigation. Strategic Management Journal, 29(8), 859–872.

APPENDICES

	ROI__N_000_	EDU	REL	AGE	FSIZ	LEV
Mean	285289.6	0.200000	0.110000	1.181200	15.30986	3.386900
Median	258337.5	0.000000	0.000000	0.000000	15.53745	3.235000
Maximum	5523052.	1.000000	1.000000	8.560000	34.33900	8.010000
Minimum	-2901109.	0.000000	0.000000	0.000000	2.800900	0.000000
Std. Dev.	742822.2	0.402015	0.314466	2.515473	6.620023	1.901976
Skewness	2.020300	1.500000	2.492891	1.857798	0.288815	0.284208
Kurtosis	32.15635	3.250000	7.214505	4.835820	2.716551	2.732330
Jarque-Bera	3610.079	37.76042	177.5836	71.56623	1.725003	1.644765
Probability	0.000000	0.000000	0.000000	0.000000	0.422105	0.439384
Sum	28528956	20.00000	11.00000	118.1200	1530.986	338.6900
Sum Sq. Dev.	5.46E+13	16.00000	9.790000	626.4329	4338.646	358.1337
Observations	100	100	100	100	100	100

Covariance Analysis: Ordinary
Date: 03/17/24 Time: 14:23
Sample: 1 100
Included observations: 100

Correlation
Probability

Observations	ROI__N_000_	EDU	REL	AGE	FSIZ	LEV
ROI__N_000_	1.000000					

	100					
EDU	0.154162	1.000000				
	0.1257	-----				
	100	100				
REL	0.213082	0.703123	1.000000			
	0.0333	0.0000	-----			
	100	100	100			

AGE	0.201053	0.943879	0.637154	1.000000		
	0.0449	0.0000	0.0000	-----		
	100	100	100	100		
FSIZ	-0.113569	-0.005876	-0.000963	-0.049330	1.000000	
	0.2606	0.9537	0.9924	0.6260	-----	
	100	100	100	100	100	
LEV	0.018697	-0.006975	-0.034214	-0.039165	0.065349	1.000000
	0.8535	0.9451	0.7354	0.6988	0.5183	-----
	100	100	100	100	100	100

Dependent Variable: LOG(ROI__N_000_)

Method: Least Squares

Date: 03/17/24 Time: 14:35

Sample (adjusted): 4 100

Included observations: 70 after adjustments

Convergence achieved after 7 iterations

White heteroskedasticity-consistent standard errors & covariance

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	13.59577	0.417085	32.59710	0.0000
EDU	0.008399	0.619307	0.013561	0.9892
REL	0.054188	0.315630	0.171682	0.8642
AGE	0.008006	0.082280	0.097297	0.9228
FSIZ	-0.047493	0.018025	-2.634896	0.0106
LEV	-0.166922	0.071106	-2.347511	0.0221
AR(3)	-0.022189	0.137929	-0.160875	0.8727

R-squared	0.235604	Mean dependent var	12.22248
Adjusted R-squared	0.162805	S.D. dependent var	0.899505
S.E. of regression	0.823032	Akaike info criterion	2.542997
Sum squared resid	42.67506	Schwarz criterion	2.767846
Log likelihood	-82.00488	Hannan-Quinn criter.	2.632310

F-statistic	3.236338	Durbin-Watson stat	1.847820
Prob(F-statistic)	0.007777	Wald F-statistic	2.721012
Prob(Wald F-statistic)	0.027385		

Inverted AR Roots	.14+.24i	.14-.24i	-.28

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.078529	Prob. F(2,61)	0.9246
Obs*R-squared	0.179767	Prob. Chi-Square(2)	0.9140

Data for the study

Company	EDU	REL	AGE		FSIZ	LEV	ROI (N'000)
ABBEY MORTGAGE BANK PLC [BLS]	1	1	7.58	2018	7.30	0.78	342,589
				2019	12.50	1.41	581,680
				2020	4.90	0.59	590,883
				2021	8.61	0.95	789,250
				2022	10.01	0.23	856,820
ACADEMY PRESS PLC.	1	1	7.29	2018	10.12	1.79	300,528
				2019	9.57	2.59	187,635
				2020	6.42	2.06	353,560
				2021	9.57	1.93	135,488
				2022	18.88	2.96	-265,544
ACCESS HOLDINGS PLC [CG+]	1	1	3.29	2018	10.50	2.76	287,600
				2019	12.55	2.9	392,500
				2020	8.50	3.21	537,234
				2021	17.80	1.43	750,125
				2022	24.29	0	250,444
AFRICA PRUDENTIAL PLC [CG+]	1	0	5.79	2018	18.50	2.57	374,650
				2019	12.50	1.96	652,125
				2020	20.65	1.6	-105,632
				2021	16.40	2.52	98,620
				2022	23.59	3.93	422,000
AFRICAN ALLIANCE INSURANCE PLC [MRF]	1	1	7.58	2018	15.38	7.69	5,523,052
				2019	10.60	8.01	987,622
				2020	8.40	4.68	463,856
				2021	10.40	6.58	63,557
				2022	9.61	7.87	-2,901,109
AFROMEDIA PLC [MRF]	1	0	7.58	2018	8.00	0	263,600
				2019	12.80	1.52	102,587
				2020	6.00	0.86	258,674
				2021	18.30	1.05	355,950
				2022	10.53	0	45,665
AIICO INSURANCE PLC.	1	0	3.29	2018	12.40	5.78	96,580
				2019	18.41	5.9	136,850
				2020	8.01	4.83	187,650
				2021	14.41	8.01	99,562
				2022	16.86	6.46	23,665
AIRTEL AFRICA	1	1	5.29	2018	15.70	1.9	-137,553

PLC				2019	13.65	3.61	257,600
				2020	18.50	1.69	352,500
				2021	20.50	0.99	437,650
				2022	20.10	2.34	102,557
ALUMINIUM EXTRUSION IND. PLC. [BLS]	1	1	4.29	2018	22.39	3.18	376,940
				2019	23.95	2.6	487,650
				2020	15.52	4.37	358,600
				2021	17.08	2.54	137,250
				2022	28.21	4.14	-65009
ARBICO PLC.	1	1	7.58	2018	5.60	2.69	639,250
				2019	3.74	2.7	782,634
				2020	2.80	4.82	400,650
				2021	6.74	2.84	437,522
				2022	3.75	3.72	500,890
ASO SAVINGS AND LOANS PLC [DIP]	1	0	7.58	2018	14.69	2.65	237,632
				2019	20.60	3.6	470,628
				2020	18.01	2.85	210,553
				2021	19.55	2.69	156,805
				2022	16.87	3.93	345,070
ASSOCIATED BUS COMPANY PLC	1	1	3.29	2018	19.11	4.22	136,650
				2019	23.60	2.69	-527,500
				2020	14.50	1.79	358,628
				2021	12.80	2	1,500,625
				2022	17.11	2.12	-2,880,002
AUSTIN LAZ & COMPANY PLC	1	0	4.29	2018	10.01	3.05	374,628
				2019	8.32	4.6	674,522
				2020	6.01	2.85	462,680
				2021	8.59	3.59	387,552
				2022	7.34	4.35	220,560
AXAMANSARD INSURANCE PLC [CG+]	1	1	7.58	2018	23.00	0	134,682
				2019	15.44	1.32	488,364
				2020	22.90	3.27	381,552
				2021	14.80	1.45	466,821
				2022	21.58	0.09	567,990
BERGER PAINTS PLC [CG+]	1	0	7.57	2018	6.44	3.26	379,646
				2019	7.56	4.3	400,263
				2020	6.00	3.18	533,254
				2021	9.65	4.05	191,529
				2022	7.81	4.77	50,000
BETA GLASS PLC.	1	0	7.29	2018	18.40	3.8	244,682

				2019	23.50	0.34	83,480
				2020	25.50	2.74	250,615
				2021	21.67	4.02	317,650
				2022	18.05	4.98	177,090
BRICLINKS AFRICA PLC	1	0	3.28	2018	28.99	4.37	68,537
				2019	18.44	5.49	381,528
				2020	28.56	3.69	65,284
				2021	34.34	4.19	145,523
				2022	31.28	5.19	10,880
BUA CEMENT PLC	1	1	3.78	2018	15.56	4.35	324,551
				2019	17.45	5.8	126,800
				2020	19.55	6.05	37,552
				2021	20.45	4.98	90,553
				2022	18.52	5.4	45,822
BUA FOODS PLC	1	1	5.34	2018	23.56	5.87	137,560
				2019	15.45	3.59	258,001
				2020	18.05	4.5	91,885
				2021	17.44	3.8	110,452
				2022	18.75	4.56	89,230
C & I LEASING PLC.	1	0	8.56	2018	18.99	6.5	157,610
				2019	17.44	4.87	642,551
				2020	13.69	5.62	137,552
				2021	18.55	3.95	380,002
				2022	15.01	5.83	120,987