EFFECT OF TRIPLE BOTTOM LINE ACCOUNTING DISCLOSURE ON PROFITABILITY OF BREEWERY FIRMS IN NIGERIA. A STUDY OF SOME SELECTED BREWERY FIRMS.

BY

UCHE-CHIJIOKE, LOTACHUKWU

GOU/U21/ACC/373

DEPARTMENT OF ACCOUNTING AND FINANCE

FACULTY OF MANAGEMENT AND SOCIAL SCIENCES

GODFREY OKOYE UNIVERSITY UGWUOMU-NIKE,

ENUGU

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TITLE PAGE

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A PROJECT WORK PRESENTED TO THE DEPARTMENT OF ACCOUNTING AND FINANCE,

FACULTY OF MANAGEMENT AND SOCIAL SCIENCES

GODFREY OKOYE UNIVERSITY, UGWUOMU-NIKE, ENUGU

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF BACHELOR OF SCIENCE (B.Sc) DEGREE IN ACCOUNTING

SUPERVISOR: DR. STEPHEN AGU

JULY, 2025.

DECLARATION

I, Uche-Chijioke, Lotachukwu, am a bona fide student in the department of Accounting and Finance under the Faculty of Management and Social Sciences in Godfrey Okoye University. I hereby declare that the work entitled "**Effect of triple bottom line accounting disclosure on profitability of brewery firms in Nigeria. A study of some selected brewery firms"** submitted by me in partial fulfillment of the requirements for the award of Bachelor of Science (B.Sc) Degree in Accounting is my original work and has not been submitted either in part or full for any other degree or diploma either in this or any other tertiary institution.

……………………….. **……………………..**

UCHE-CHIJIOKE LOTACHUKWU **DATE**

CERTIFICATION

This research project titled "**Effect of triple bottom line accounting disclosure on profitability of brewery firms in Nigeria. A study of some selected brewery firms"** was written by Uche-Chijioke Lotachukwu with the registration number GOU/U21/ACC/373 presented to the Department of Accounting and Finance of Godfrey Okoye University, Enugu has been assessed and approved for oral examination/defense by the Department of Accounting and Finance, Godfrey Okoye University, Enugu.

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Dr. STEPHEN AGU **Date**

Project Supervisor

…………………..   …………………

PROF. JOHN ODO **Date**

Head of Department

…………………..   …………………

PROF. JOHN ODO **Date**

Dean, FMSS

…………………..   …………………

External Examiner **Date**

DEDICATION

This work is dedicated to the Almighty God for His guidance and mercy.

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ABSTRACT

This study examined the effect of triple bottom line accounting disclosure on profitability of brewery firms in Nigeria. Specifically; it determined the effect Economic disclosure index, Environmental disclosure index and Social disclosure index on return on asset of Brewery firms in Nigeria. An ex –post facto research design approach was adopted for the study. Using a series data for the period of eleven (11) years 2014 to 2024, Nigeria breweries plc was purposively chosen based on its position as a key player in the sector and stability in sustainability/TBL accounting disclosure practices as put forward by Brewery sustainability reports (2022). Secondary data were carefully obtained from the financial statements/sustainability reporting of the company from 2014 to 2024.Three hypotheses were formulated and tested in the course of this study. Regression analysis by aid of Eview v 10.00 was used to test for statistical significance of effect of triple bottom line accounting disclosure on profitability of brewery firms in Nigeria. The results showed that there is a positive but insignificant effect of Economic disclosure index on Return on Asset of Brewery Firms in Nigeria. This study further revealed that Environmental disclosure index has a negative and insignificant effect on the Return on Asset of Brewery firms in Nigeria. Finally, the result also established that Social disclosure index has negative and insignificant effect on Return on Asset of Brewery firms in Nigeria. Based on the findings, this study recommended that Brewery firms in Nigeria should strengthen the relevance and transparency of economic disclosures by linking them more clearly to value creation, productivity, and financial strategy, reassess the cost-benefit balance of environmental reporting by ensuring that such disclosures are strategically integrated into operational efficiency, innovation, and risk management processes. Finally, Social disclosures should be re-evaluated and aligned with stakeholder engagement strategies, ensuring that investments in corporate social responsibility (CSR) and community development deliver measurable returns.

CHAPTER ONE
INTRODUCTION

1.1 Background of the Study

In a time of crucial and impactful environmental challenges, social inequality, and transforming consumer expectations, the primary corporate approach of mainly focusing on generating maximum profit is proving inadequate (Elisabete, 2025). The growth in global environmental awareness and the campaign for sustainable economic development is repositioning the attention of firms towards environmental sensitivity (Ngwakwe, 2022). The triple bottom line also TBL further drives the initial and traditional objective of firms from focusing mainly and only on their financial outcomes (profit) to accommodate the impact of their firms' productions to the environment (planet), and the society at large (people).

Sustainability was first introduced in 1994 by John Elkington. Business is seen as a socioeconomic activity and it pulls its raw materials for production from the environment and the society. Therefore, its objectives should include the welfare of the society and the environment (Abbot and Monsen 2009 cited in Azubike, 2022). Elkington in 1997 formed triple bottom line as a new term to advance his sustainability agendas (Azubike, 2022). Companies aiming for sustainability need to perform for not only a single financial bottom line, but for the three accounting bottom lines (Elkington, 2012, cited in Azubike, 2022). The sustainability theory is an integrated accounting framework emphasizing interactive evaluation of people, planet, and profit as the three paramount dimensions for measuring and improving a firm's performance (Onyali, 2018). Triple bottom line does not only focus corporation on the economic value they add but also on the environmental and social value they add and destroy (Ifeanyi, 2020). A recent international guideline states that; an understandable and collectively accepted approach is necessary to address the traditional consequences of business activity on economic, environmental, and social aspects (Elisabete, 2025).

Triple bottom line accounting enhances a company's scope and functioning thereby giving them a competitive edge over other competitors with weak environmental regulations, low pressure group activity, and little consumer awareness. The triple bottom line goes further to enhance the strategic position of such companies. As businesses identify the symbolic relationship that is between their success and societal well-being, embracing triple bottom line principles becomes more than just a moral obligation, it becomes strategically important (of crucial/vital importance) for a harmonious, profitable, and prosperous future.

The overarching goal of private enterprises is to achieve sustained profitability through strategic financial and operational initiatives that enhance stakeholder value (Feng et al., 2020). Financial performance is a key metric that reflects an establishment's ability to transform its acquired assets into revenue, indicating efficiency with which it deploys its resources to generate income and increase shareholder wealth (Osazuwa & Che-Ahmad, 2016). Consequently, corporate strategies are only considered effective if they lead to improved financial and operational outcomes. This strategic orientation not only opens avenues for profitability and market competitiveness but also positions businesses to play a meaningful role in addressing global socio-economic challenges (Akpan & Emenyi, 2020). A sustainable organization, therefore, is one that integrates long-term planning across economic, social, and environmental dimensions, thereby ensuring operational resilience. Companies can adopt socially and environmentally responsible policies without compromising shareholder value, enabling them to gain competitive advantages while contributing positively to society (Eccles et al., 2014; Lozano, 2015).

This study examines how triple bottom line affects a company's profitability. This work adds to already existing works by examining this issue in the context of brewery firms in Nigeria, to ascertain the level of profitability on the Return on Assets of these brewery firms while working with the triple bottom line.

1.2 Statement of the Problem

As there is diverting from just economic focus towards social/environmental longevity, firms are encouraged to look at the big picture and see their impact on the world around them (Onyali, 2018). A fundamental philosophy transmitted today is how undeniably pressing it is that firms observe all values in reporting in order to limit the chances that their activities will cause harm to global resources, not just for today's population, but also for generations to come. Triple bottom line disclosure can negatively impact the profitability of a company because taking care and proper handling of the environment and the people may need serious investments which can be seen as a problem for emerging companies. Even with proper investments, there can be some difficulty in ascertaining the level of profitability to the company as there is no set means of measuring the value of non-financial gains. The gaps in comprehensive and verifiable set standard on triple bottom line practices of companies can signal a practice where companies pollute the environment and negatively impact the people and yet appear more economically pleasant than other companies that take on expenses to care for and preserve the environment. This can only happen because of the lack of set standards. The lack of standardization in sustainability can make it difficult to compare the performance and level of activity and cooperation between companies. Onyali (2018) in her work asked; if engaging in triple bottom line activities does not lead to improved financial performances per se, what are the antecedents of triple bottom line that drives corporations to engage in triple bottom line activities? Cowen, Ferrari, and Parker, suggests that larger companies tend to receive more attention from the public and therefore, they are under greater public pressure to exhibit social responsibility (Onyali, 2018). Larger companies can be existing for long or they can be new, but they must make enough profits to fund the triple bottom line reports while struggling companies can have their triple bottom line activities limited. If there is no activity, there is no report/disclosure.

This research study was carried out to measure the effect of triple bottom line disclosure on profitability (Return on Assets) with reference to Nigerian Breweries Plc.

1.3 Objectives of the Study

The held on to objective of the study is to ascertain the effect of triple bottom line accounting disclosure on profitability of brewery firms in Nigeria.

The carefully selected objectives for this study are to:

i. Examine the effect of economic disclosure index on Return on Assets of brewery firms in Nigeria.
ii. Examine the effect of environmental disclosure index on Return on Assets of brewery firms in Nigeria.
iii. Examine the effect of social disclosure index on Return on Assets of brewery firms in Nigeria.

1.4 Research Questions

To particularly find out the effect of triple bottom line disclosure sustainability reporting on profitability of firms, the following research questions were formulated:

i. To what extent does economic disclosure index affect Return on Assets of brewery firms in Nigeria?
ii. How does environmental disclosure index affect Return on Assets of brewery firms in Nigeria?
iii. To what extent does social disclosure index affect Return on Assets of brewery firms in Nigeria?

1.5 Research Hypotheses

Three hypotheses are formulated to achieve the research objectives of the various parameters. The hypotheses are hereby stated:

i. Economic disclosure index has no significant effect on Return on Assets of brewery firms in Nigeria.
ii. There is no significant effect of environmental disclosure index on Return on Assets of brewery firms in Nigeria.
iii. There is no significant effect of social disclosure index on Return on Assets of brewery firms in Nigeria.

1.6 Significance of the Study

The outcome of the study will be if immense benefit to the following:

Management of breweries: The management of the brewery will understand how triple bottom line disclosure influences profitability of the organization. They will receive insights on practices, sustainability practices that enhance financial performance.

Investors and stakeholders: This study would help investors identify transparent and financially sustainable brewery firms to invest and work with. The morale of stakeholders will also be boosted when firms prioritize responsible and ethical business practices.

Researchers and academia: This study will add to the existing literature on sustainability reporting and corporate profitability. It will provide empirical data that can be used for future studies on triple bottom line. For some time, it would serve as a current work to be used.

Regulators and government: Regulators would benefit by getting help assessing compliance with corporate disclosure requirements. It can also aid regulators in developing guidelines for sustainability reporting in the brewery sector.

1.7 Scope of the Study

This study is pegged on the effect of triple bottom line accounting disclosure on profitability of brewery firms in Nigeria. The study assessed the effect of triple bottom line accounting disclosure on profitability of Nigerian Breweries Plc Nigeria using a time series data covering eleven (11) years from 2014 to 2024. The choice of the period and company was to maintain recency and facilitate easy accessibility of data. The study is limited to the variable of interest: triple bottom line accounting disclosure measured by economic disclosure index (EcDI), environmental disclosure index (EnDI), and social disclosure index (SDI) and profitability surrogated with Return on Assets (ROA).

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Conceptual Framework

2.1.1 Triple bottom line

The theory of Triple bottom line introduced by John Elkington in the year 1994 as a way of measuring sustainability changed the financial reporting standard from one to three. Triple bottom line accounting captures the essence of sustainability by measuring the impact of an organization's activities on the world (Azubike, 2022). Sustainability reporting is a method used in business accounting to further expand stakeholder's knowledge of the company and the works they do. It goes beyond the primary financial aspects and opens up to stakeholders the company's impact on the world around it (Atu, 2013). It lets the public have an insight on the company's operations and activities to ensure safety, protection and transparency. The switch effected from one dimensional financial reporting to three-dimensional reporting (Triple Bottom Line) has put up new challenges; however, it has also created new opportunities. Management accountants in particular have already acquired many skills required to take advantage of these opportunities. Nevertheless, a few challenges will require management accountants and other financial/accounting professionals to adapt and learn some new skills (David, 2005, cited in Atu, 2013).

Triple bottom line disclosure has the capability to affect the profitability of a firm in various ways. The effect can be negative or positive to the firm. The word "profitability" here does not imply paper profit (monetary profit), it means having a positive impact on the world and attracting goodwill.

The positive effect of Triple bottom line on profitability of a firm

i. It makes the impact of the company to the world greatly positive.

ii. Taking care of the society and planet will encourage employee retention, productivity, and reduce attrition.

iii. The presence of Triple bottom line in a firm can be what the firm needs to get the loyalty of customers.

iv. Triple bottom line can increase long-term profitability. Investing in Triple bottom line can be expensive in the initial business years but once established, it can reduce cost and increase profitability long-term.

v. The presence of Triple bottom line can attract investors to a company, both foreign and local investors.

2.1.2 Economic disclosure

This is the timely release of information about a company's finance to an audience (the public). It is basically the act of making a company's statements/financial information available to investors, etc. The information being disclosed has the power to influence an investor's decisions.

2.1.3 Environmental disclosure

The growth in the economy has been positively interrelated with environmental destruction. Environmental management then became a global concern since the increase in geothermal temperatures (global warming) and natural mishaps. Environmental disclosure is a form of corporate responsibility for the environmental impacts caused by manufacturing activities. It is a material for stakeholders and it is used to make various decisions. Environmental disclosure refers to financial or non-financial disclosure made by firms on their businesses' social and environmental effects.

2.1.4 Social disclosure

Social disclosure is the act a firm performs by making its information public. The information can be about its activities, performance, or standards. The social disclosure of a firm can go out of its way to affect its economic outcomes positively by lowering financing costs, improving customer loyalty, improving the firm's performance, adding value to the firm, curtailing excessive payouts, promoting long-term growth and substantial innovations; and negatively by decreasing profitability. Triple bottom line is a societal and ecological understanding reached by the community and businesses. In presenting information about the company's impact on issues impacting sustainability, there should be both negative and positive items that emerge. Triple bottom line reporting incorporates presenting what the business is doing well, along with areas that need more attention improvement (Atu, 2013).

2.1.5 Profitability

Profitability is the process where a firm receives more revenue than payments made. Profitability generally points at a company's capability to generate and draw more from the capital employed and other assets used. The profitability of a company can be measured in different ways using different ratios. Return on Assets is one of the ratios that can be used to measure profitability and determine how the assets of a company helps the company to generate profit. It shows how much profit a company pulls back from its owned properties and resources. Return on Assets can be derived by dividing net income by total assets.

$$\text{Return on Assets} = \frac{\text{Net income}}{\text{Total assets.}}$$

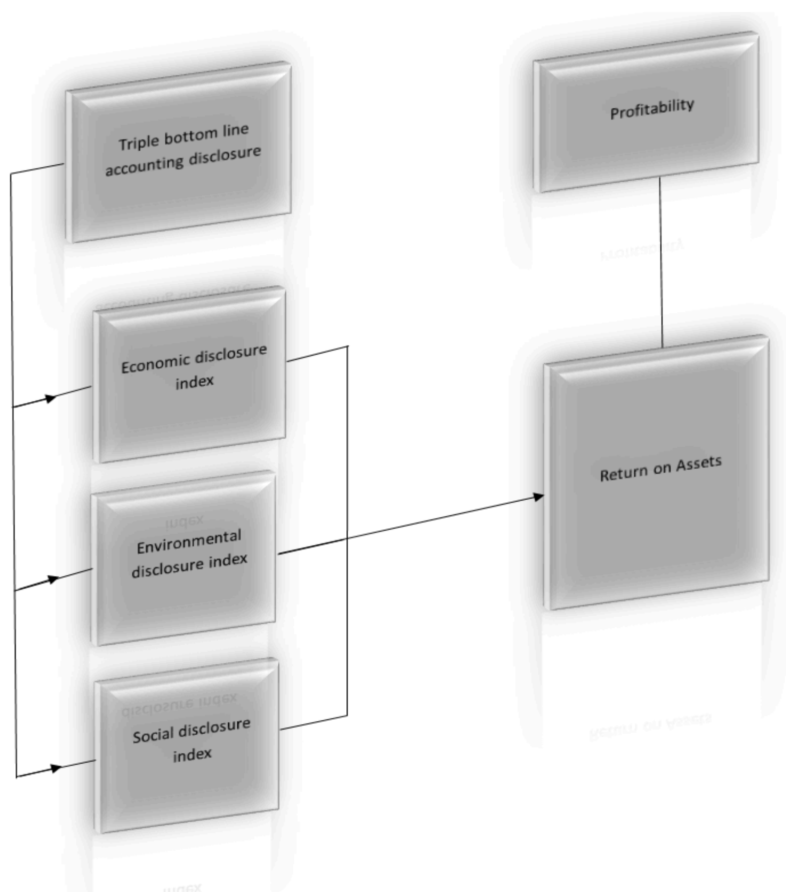

Figure 1: Conceptual Framework.

2.2 Theoretical Review.

The traditional financial reporting method is concerned with just the economic outcomes, that is, the profits of the company. In contrast, Triple bottom line expands this focus to add the social and environmental dimensions. These added dimensions are a corporate social responsibility to the company. Corporate Social Responsibility refers to the ethical obligation of businesses to contribute positively to society and the environment (Sejal, 2014). To impact positively to the society and the environment, Triple bottom line requires a focus on long-term strategic thinking, planning, coordination, and implementation (Hashem, 2023). In old times, corporate social responsibility initiatives were originally philanthropic, focusing on donations on charity and community support. However, in recent times, corporate social responsibility has expanded to include a broad range of activities aimed at reducing the negative impacts of business operations on society and the environment (Sejal, 2014). Triple bottom line reporting was fueled by increasing stakeholder expectations, regulatory pressures, and the realization that responsible business practices can lead to long-term benefits, including enhanced reputation, customer loyalty, employee satisfaction, and employee retention (Sejal, 2014). Triple bottom line was introduced to protect the environment and the society.

There are several theories in existence

i. Stakeholder theory
ii. Signaling theory
iii. Legitimacy theory
iv. Agency theory

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2.2.1 Stakeholder Theory

The stakeholder theory states that a firm's progress depends on the profitable management of all. The profitable management of all includes the profitable management of the employees, customers, suppliers, and the community. The concept of the stakeholder theory is about what the organization should be and how it should be conceptualized. Here, the organization should be viewed as a bee hive with different divisions and different workers (stakeholders) and the purpose of the company would be to manage their interests, needs, and ideas.

2.2.2 Agency Theory

The agency theory examines the issues that can come up between the management (agents) and the owners (shareholders). It highlights areas where there can be potential conflict of interests. The agency theory problem leads to situations where the management of a company has more information about the company than the fund providers of the company. Adequate triple bottom line disclosure helps reduce differences between a company's performance and their stakeholder's expectations (Onyali, 2018).

2.2.3 Signaling Theory

The signaling theory explains how the sender of information/the signaler transmits information about their characteristics/qualities to the receiver of the information. Here, the signaler has better or more information that most times only he can share than the receiver. Signaling theory proposes that companies choose sustainability information in order to send messages on their economic, social, and environmental performance.

2.2.4 Legitimacy Theory

Legitimacy theory suggests that a company seeks validation from the society. The validation is that their actions are perceived as legitimate. The company can gets its actions perceived as legitimate through disclosure and transparency of reports.

The main and sole purpose of individuals coming together, seek out resources, pitch to investors to invest in their business is to at the end of the day have some profit. With that said, this work is anchored on signaling theory as it suggests that firms disclose information as signal to the market about their quality and credibility. Brewery firms can use sustainability reporting as a strategic tool to gain an advantage differentiating themselves from competitors.

2.3 Empirical Review

In one of the experiment, Park et al (2016) tested whether customer-centric triple bottom line is valid. As triple bottom line model has not been tested and implemented against the context of fashion brands, exploratory factor analysis (EFA) was carried out. The triple bottom line model substantiated by both the EFA (Exploratory Factor Analysis) and the CFA (Chartered Financial Analyst) tells us that triple bottom line model can be used as an accounting framework for consumer aspect sustainability of fashion brands. The research gives significant and beneficial contributions. It furthers the understanding of the users of the work on a consumer perspective of a fashion brands sustainability and its role in forming brand engagements for speedy fashion brands. The inadequacy of a company to completely work with the three pillars of triple bottom line (ppp) in its business may cause significant damage to its brand image as well as the way its customers see its ongoing sustainability works.

Azubike et al (2022) in their study on how "triple bottom line accounting affects the financial performance of manufacturing firms of consumer goods products in Nigeria", stated that performance can be weighed based on the impact of companies on the society as a whole both now and into the future. The study adopted a cross-sectional and ex-post facto research design. The inter-relationship among variables was examined using data obtained from the then "Nigeria Stock Exchange" (NSE), now officially "Nigerian Exchange Group" (NGX) on a cross section of listed manufacturing firms in consumer goods product in specific periods of 2013 to 2017. The study concludes that Social Cost has a positive but not significant effect on the financial performance of listed manufacturing firms in Nigeria and it suggests that social cost of the triple bottom line accounting moves in the same direction with financial performance of listed manufacturing firms in Nigeria. Also, Economic Cost has a negative and not significant effect on the financial performance of listed manufacturing firms. This implies that economic cost of triple bottom line accounting does not move together with their financial performance of listed manufacturing firms. Environmental Cost is another variable of triple bottom line accounting, it has a negative and non-significant effect on the financial performance of listed manufacturing firms in this study. A finding in the study suggests that increased frequencies of environmental cost for the triple bottom line accounting is associated by a corresponding increase in the financial performance of listed manufacturing companies.

Odogu et al (2022) in the study "the imperative of triple bottom line accounting and the performance of listed manufacturing companies in Nigeria" adopted the cross-sectional and ex-post facto research design. The specific period covered for this study was from 2015 to 2019. Panel left square regression and multiple regression method was adopted to establish the relationship between the independent variable: triple bottom line accounting, and the dependent variable, the performance of listed manufacturing companies in Nigeria. Odogu stated that it was established that economic cost and environmental cost have a positive and significant effect on the variables of performance of listed manufacturing companies in Nigeria while social cost has positive and non-significant effect on the variable of performance of manufacturing companies in Nigeria.

Ifeanyi et al (2020) conducted a research on the effect of triple bottom line reporting on the performance of listed oil and gas firms in Nigeria. The research design adopted for the study was ex-post facto research design with content analysis. The research population compromised 11 oil and gas firms in Nigeria. Using judgmental sampling, five firms we are selected as the sample size for the study from 2012 to 2016. Secondary sources of data was used. The results of the analysis shows a low relationship between components of triple bottom line and the performance of oil and gas firms in Nigeria. The study states that a reason for the low relationship could be because triple bottom line disclosure is voluntary and some companies do not report in their financial statements.

Nogueira et al (2024) explored the influence of the triple bottom line economic dimension on firm performance. The quantitative methodology was used for this study and the period was from 2010 to 2020. Considered firms for this study are; small, medium, and large firms that have an active status. Financial companies were excluded because of some specific aspects that may not be comparable with non-financial companies. The analysis indicated a predominantly positive relationship between financial ratios (net profit to equity ratio, total assets to current assets ratio, asset turnover ratio, current ratio, total liabilities to total assets ratio), and the economic aspect of triple bottom line across small, medium-sized, and large firms.

Osigbembe et al (2022) examined the environmental costs and financial performance of brewery firms in Nigeria. Data used for this study came from the Nigerian Breweries Plc. and the International Breweries Plc. over a ten year period (2011-2020). Secondary data collection were used to study the impact of environmental costs on Return on Investment in Nigerian Brewing companies. The ex-facto research design was also used. The findings from the research show that there is no significant relationship between training cost and Return on Asset of Nigerian Brewery firms, there is no significant relationship between medical cost and Return on Asset of Nigerian Brewery firms, and there is no significant relationship between donation cost and Return on Assets of Nigerian brewery firms.

Agu et al (2022) carried out an examination on the empirical study of the effect of quality environmental information disclosure on firms' performance of listed brewery firms in Nigeria. The ex-post facto design was adopted for this study because here, secondary data was sourced carefully from the financial statements, annual reports, and sustainability reports of brewery firms quoted in the "Nigeria stock exchange", Nigerian Exchange Group. 4 brewery firms were selected for this study from the year 2008 to 2019.

Ordinary regression analysis was adopted by the aid of E-view V.10 statistical package to ascertain the effect of quality environmental information disclosure on performance of listed breweries in Nigeria. In this study, it was established that environmental information disclosure significantly affect Return on Assets of listed brewery firms in Nigeria. Environmental information disclosure do not significantly affect Return on Equity of listed brewery firms in Nigeria. Environmental information disclosure significantly affect Net profit Margin of listed breweries in Nigeria.

Onyali (2014) performed an appraisal of triple bottom line accounting and sustainable corporate performance. The following methods were adopted in data summarization and presentation: tables and frequency distribution while the formulated hypotheses were tested using ANOVA and multiple regression analysis. The study discovered that respondent perceived that the implementation of triple bottom line accounting in organizations would enable managers identify environmental and social costs affecting the business, respondents perceived that the implementation of triple bottom line accounting in organizations would enable managers allocate environmental and social cost affecting the business, respondents perceived that the implementation of triple bottom line accounting in organizations would enable managers measure environmental and social costs affecting the business. It was also discovered that implementing triple bottom line accounting in organizations would provide managers with strategies and techniques for managing corporate environmental, social and economic performance.

This study is carried out to empirically examine the effect of corporate eco-efficiency on the profitability of Nigerian breweries Plc. Agu et al (2019). The study used the ex-post facto research design covering a period of 10 years (2008-2017). Linear regression analysis was performed to analyze the relationship between corporate eco-efficiency and profitability of the firms. This study established that there is statistical positive significant effect of energy efficiency on the profitability of Nigerian brewery Plc. there is statistical positive and significant relationship between the water utilization, efficiency and the profitability of Nigerian brewery Plc. finally, there exists a statistical positive and significant relationship between greenhouse gas emission management and profitability of Nigerian brewery Plc.

Hashem at al (2023) examined the influence of triple bottom line theory on sustainability accounting: case of petroleum sector in Iraq. Four oil plants were selected, and their financial statements for the period 2016-2020 will be analyzed by SPSS (statistical package for the social sciences). The conclusion of the research birthed the findings that the triple bottom line theory contributes to enhance sustainability accounting through the qualitative disclosure of the entity's social and environmental activities, the triple bottom line theory can be helpful to increase the level of awareness for the entity's management to achieve governmental requirements and stakeholders needs, the triple bottom line theory contributes to achieve one of the most important objectives of sustainability accounting by the disclosure of the entity's commitment to achieve its social and environmental duties, there is a weak response for plants of oil sector to gain a competitive advantage by achieving social and environmental responsibility for the plants.

2.4 Summary of Empirical Review

S/N	Author(s)	Year	Objective	Methodology	Findings

1	Nogueira, Gomes, and Lopes.	2024	Explore the influence of the triple bottom line economic dimension on firm performance. From 2010-2020.	Quantitative methodology.	There is a predominantly positive relationship between financial ratios and the economic aspect of triple bottom line across small, medium-sized, and large firms.
2	Hashem, Jaafar, and Tarkh.	2023	The influence of triple bottom line theory on sustainability accounting: case of petroleum sector in Iraq. From 2016-2020	SPSS (statistical package for the social sciences).	The findings: The triple bottom line theory contributes to enhance sustainability accounting through the qualitative disclosure of the entity's social and environmental activities, the triple bottom line theory can be helpful to increase the level of awareness for the entity's management to achieve governmental requirements and stakeholders needs, the triple bottom line theory contributes to achieve one of the most important objectives of sustainability accounting by the

					disclosure of the entity's commitment to achieve its social and environmental duties, there is a weak response for plants of oil sector to gain a competitive advantage by achieving social and environmental responsibility for the plants.
3	Azubike et al.	2022	How does triple bottom line accounting affects the financial performance of manufacturing firms of consumer goods products in Nigeria. From 2013-2017.	Cross-sectional and ex-post facto research design.	A finding in the study suggests that increased frequencies of environmental cost for the triple bottom line accounting is associated by a corresponding increase in the financial performance of listed manufacturing companies.
4	Agu, Ani, and Jideoffor. .	2022	The empirical study of the effect of quality environmental information disclosure on firms' performance of listed brewery firms in Nigeria.	Ex-post facto research design.	Environmental information disclosure significantly affect Return on Assets of listed brewery firms in Nigeria. Environmental information disclosure do not significantly

			From 2008-2019.		affect Return on Equity of listed brewery firms in Nigeria. Environmental information disclosure significantly affect Net profit Margin of listed breweries in Nigeria.
5	Odogu et al.	2022	The imperative of triple bottom line accounting and the performance of listed manufacturing companies in Nigeria. From 2015-2019.	Cross-sectional and ex-post facto research design.	Economic cost and environmental cost have a positive and significant effect on the variables of performance of listed manufacturing companies in Nigeria while social cost has positive and non-significant effect on the variable of performance of manufacturing companies in Nigeria.
6	Osigbembe, Inyiama, and Uwuigbe.	2022	The environmental costs and financial performance of brewery firms in Nigeria. From 2011-2020.	Ex-post facto research design.	There is no significant relationship between training cost and Return on Asset of Nigerian Brewery firms, there is no significant relationship between medical cost and Return

					on Asset of Nigerian Brewery firms, and there is no significant relationship between donation cost and Return on Assets of Nigerian brewery firms.
7	Ifeanyi et al.	2020	The effect of triple bottom line reporting on the performance of listed oil and gas firms in Nigeria. From 2012-2016.	Ex-post facto research design with content analysis.	There is a low relationship between components of triple bottom line and the performance of oil and gas firms in Nigeria. A reason for the low relationship could be because triple bottom line disclosure is voluntary and some companies do not report in their financial statements.
8	Agu, Udeh, and Okolo.	2019	The effect of corporate eco-efficiency on the profitability of Nigerian breweries Plc. From 2008-2017	Ex-post facto research design.	This study established that there is statistical positive significant effect of energy efficiency on the profitability of Nigerian brewery Plc. there is statistical positive and significant relationship between the water

					utilization, efficiency and the profitability of Nigerian brewery Plc. finally, there exists a statistical positive and significant relationship between greenhouse gas emission management and profitability of Nigerian brewery Plc.
9	Park and Kim	2016	Empirical test of the triple bottom line of customer-centric sustainability.	EFA and CFA.	The failure of a company to fully work with the three pillars of sustainability (profit, people, and planet) in its business may inflict significant damage to its brand image as well as the way its customers perceive its ongoing sustainability efforts.
10	Onyali.	2014	Triple bottom line accounting and sustainable corporate performance.	Formulated hypotheses were tested using ANOVA and multiple regression analysis	The study discovered that respondent perceived that the implementation of triple bottom line accounting in organizations would enable managers identify environmental and social costs affecting the business,

					respondents perceived that the implementation of triple bottom line accounting in organizations would enable managers allocate environmental and social cost affecting the business, respondents perceived that the implementation of triple bottom line accounting in organizations would enable managers measure environmental and social costs affecting the business. It was also discovered that implementing triple bottom line accounting in organizations would provide managers with strategies and techniques for managing corporate environmental, social and economic performance.

2.5 Gap in Literature

The empirical search concluded evidently that there are limited works carried out on triple bottom line accounting disclosure and how it influences the profitability of firms especially in developing countries like Nigeria. It is glaring from the empirical review that most of the reviewed works were with research findings arising from the series data that are not current. For instance, Ifeanyi et al (2020) conducted an ex-post facto study covering only five (5) years from 2012 – 2016. A period which may not be efficient to establish the long-run effect of the triple bottom line on performance of oil and gas firms in Nigeria.

This current study has been carried to address these identified gaps by providing empirical evidence to the existing literature on the subject with a time series study covering eleven years from 2014 – 2024.

CHAPTER THREE
METHODOLOGY

3.1 Research Design

This research on the effect of triple bottom line accounting disclosure on the profitability of brewery firms in Nigeria utilizes the ex-post facto research design. This research made use of secondary data from the annual reports and accounts of brewery firms in Nigeria, financial statements, and sustainability reports of the selected brewery firms. The ex–post facto research design examines the cause-effect relationship among variables or the effect of a variable on another. It studies the naturally occurring variations and their impact on profitability (Return on Assets). Tis research covers the period from 2014-2024 on the selected sample firms. The study follows longitudinal analysis to identify the extent and quality of triple bottom line disclosures. Regression analysis was adopted by the aid of E-view Students statistical package to ascertain the effect of triple bottom line accounting disclosure on the profitability of brewery firms in Nigeria.

3.2 Area of the Study

This study focused on brewery firms within Nigeria with particular reference to the Nigerian Breweries Plc.

3.3 Population of the study

The target population of this study is five (5) listed Brewery firms which include Nigerian Breweries plc, Guinness Nigeria Plc, International Breweries Plc, Champion Breweries plc, Jos Int. Breweries Plc, Premier Breweries Plc and Golden Guinea Breweries Plc (NGX Factbook, 2021).

3.4 Sampling size determination

Nigeria Breweries plc was purposively selected. Nigeria Breweries plc was considered based on its position as a key player in the sector and stability in sustainability/TBL accounting disclosure practices as put forward by Brewery sustainability reports (2022). Consequent upon this, a firm whose data will be available and best fit the purpose of this study was used in analysis.

3.5 Method of data collection

The researchers relied only on the Secondary sources to collect the required data. The choice of this source is to ensure validity and reliability of data and also to enable the researchers to economize on resources, provide more efficient management of the time needed to collect the information as well as obtain a greater number of observations from the corporate annual reports especially from the sustainability reports. The secondary data for the period 2014 – 2024 will be sourced from the annual reports and sustainability reports obtained from the Nigerian Exchange Group (NGX) and companies' websites. This study concentrated only on the relevant data for the variables of this study like total assets, and profit after interest & taxes. The Content analysis will also be performed to determine the presence or absence of items mentioned by Global Reporting Initiative Guidelines G4 (GRIG4) in respect of Economic disclosure indexes (EcDI), Environmental disclosure indexes (EnDI) and social disclosure indexes (SDI) for the firm sampled. With content analysis, a score of one (1) will be awarded if an item is reported; otherwise, a score of zero (0) will be awarded. Consequently, a firm could score a minimum of 0 and a maximum of four, twelve and thirty (4, 12, & 29) points on economic, environmental and social categories respectively.

The formula used to calculate the index score is:

$$\text{Index of CSR\_GRI Disclosure Rate} = \sum \frac{k=1,\text{(items available)} \quad k=0,\text{(items not available)}}{N=\text{(total GRI disclosure requirements)}}$$

3.6 Data Analysis Techniques

Secondary data that were collected from the annual reports & accounts and the Sustainability reports of the firm were used during analysis. Data collected were quantitative in nature and were analyzed with descriptive and inferential statistics. Descriptive statistics such as mean and standard deviation were used to analyze the quality and behavior of the data. Table was used to present the data collected for ease of understanding and analysis. The hypotheses of this study were tested using multiple regression analysis by the aid of Eview version 10. In that connection, the regression results were interpreted with reference to the size of the stochastic term.

3.7 Model specification

This study adapted the model as used by Agu, and Amedu, (2016) in Nigeria which originally stated as follows;

Fin. Perf. = β0 + β1EcDI + β2 EnDI + β3SDI + ε ---

Where:

Fin. Perf. =Financial Performance proxied by ROA, ,

ROA= Returns on asset

EcDI = Economic disclosure index,

EnDI = Environmental disclosure index.

SDI = Social disclosure index.

β0 is the intercept of the population regression line.

ε is the error term

The model was therefore modified to suit and guide the purpose of this study. The model specified below estimates the functional correlation between the dependent and independent variables in this study as follows:

PRF. = f (TBLAD) (1)

ROA $= \beta_0 + \beta_1$EnDI +ε (2)

ROA $= \beta_0 + \beta_2$ EcDI +ε (3)

ROA $= \beta_0 + \beta_3$SDI +ε (4)

ROA $= \beta_0 + \beta_1$EnDI + β_2 EcDI + β_3SDI +ε (5)

Where:

PRF. =Profitability proxied by ROA Dependent variable).

TBLAD = Triple Bottom Line Accounting Disclosures surrogated by (EnDI), (EcDI), and (SDI)

ROA = Returns on asset obtained as a ratio profit after tax to total assets of the firm

EnDI = Economic disclosure indexes

EcDI=Environmental disclosure indexes

SDI = Social disclosure indexes

β0 is the intercept of the population regression line.

ε *is* the error term

3.8 Description of Model variables

Table 3.8.1: Operationization of Model variables

Type of Variable	**Proxy**	**Proxy**	**Sources**
Dependent variables	ROA	PAT/Total Asset	Annual report & accounts
Independent Variables	EnDI	GRI G4 Category I, total sustainability disclosure requirements, (4 items)	Annual/Sustainability reports
	EcDI	GRI G4 Category II, total sustainability disclosure requirements, (12 items)	Annual/Sustainability reports
	SDI	GRI G4 Category III, total sustainability disclosure requirements, (29 items)	Annual/Sustainability reports

3.9 Decision Rule

As recommended by Fisz, (1963) P-Value: the probability value aids us in accepting or rejecting the null or alternative hypothesis. The decision rule of this study was based on the fact that If the p-value is less than or equal to 0.05 (5%), we reject the null and accept the alternative hypothesis at 5% level of significance.

3.10 Limitations of the Study

The study was heavily challenged during data collection. As a content analytical study, the Nigeria Exchange Group (NGX) fact books did not yield sufficient data for the targeted Brewery firms in Nigeria, however delimited the study to a study of one (1) Brewery firm that was actively responsive to sustainability concerns. We overcome this by obtaining Annual report and accounts of sampled firm and the 2024 Sustainability reports obtained from the company's websites.

The study intends to cover a series of fifteen (15) years period from 2010-2024 but the study was challenged in data accessibility as it was only Nigeria Breweries Plc that assumed responsibility to disclosure of ecological and social data in the corporate reports which commenced from year 2014. Consequently, the study period was delimited hence resulted to the choice of the eleven (11) years period from 2014-2024 which can empirically attest to an extent the long run effect of triple bottom line accounting indicators on profitability of Brewers in Nigeria.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 Data Presentation

This chapter presents the analysis of the secondary data collected from the Annual reports/sustainability report of Nigeria Breweries Plc. The data from this source are presented by aid of table showing data of the Brewer for clarity purposes. In this chapter, we also provided two types of data analysis; namely descriptive analysis and inferential analysis. The descriptive analysis helps us to describe the behavior or relevant aspects of the phenomena under consideration and provide detailed information about each relevant variable. For the inferential analysis, we used the series data regression analysis. The regression estimates the effect of triple bottom line accounting (surrogated by Economic disclosure index (EcDI), Environmental disclosure index (EnDI) and social disclosure index (SDI) on profitability (proxied return on assets (ROA) of Nigeria Breweries Plc.

Table 4.1.1 Raw Data of Nigeria Breweries Plc

	ROA	EcDI	EnDI	SDI
2014	0.2000	.82	.15	.64
2015	0.1284	.86	.17	.54
2016	0.1850	.82	0.38	.43
2017	0.1907	.93	.56	.82
2018	0.3152	.93	.46	.93
2019	0.2572	.93	.71	.93
2020	0.1394	.82	.17	.54
2021	0.2096	.86	0.38	.43
2022	0.0509	.82	.56	.82
2023	0.0914	.93	.46	.93
2024	0.2031	.93	.71	.82

Source: Researcher's computation, 2025.

The table 4.1.1 shows the series data of Nigeria Breweries Plc. It represents the yearly data obtained for the period of eleven (11) years for each and every variable of this study. A good look at the Table 4.1.1 indicates that Nigeria Breweries Plc generally fluctuate randomly throughout the period in the variables.

4.2 Data Analysis

Data analyzed using Descriptive Statistics to enable appropriate description of the behavior of the variables.

4.2.1 Descriptive Statistics

	ROA	ECDI	ENDI	SDI
Mean	0.179173	0.877273	0.428182	0.711818
Median	0.190700	0.860000	0.460000	0.820000
Maximum	0.315200	0.930000	0.710000	0.930000
Minimum	0.050900	0.820000	0.150000	0.430000
Std. Dev.	0.074168	0.052553	0.202722	0.200241
Skewness	0.016468	-0.020818	-0.085106	-0.265479
Kurtosis	2.617631	1.180559	1.830644	1.477482
Jarque-Bera	0.067508	1.518045	0.640001	1.191657
Probability	0.966809	0.468124	0.726149	0.551106
Sum	1.970900	9.650000	4.710000	7.830000
Sum Sq. Dev.	0.055008	0.027618	0.410964	0.400964
Observations	11	11	11	11

Source: *Author's EView 10 Output 2025*

On the basis of the sampled Nigeria Breweries Plc, table 4.2.1 evaluates the statistical properties of the variables of this study; the descriptive analysis of the data collected as carried out in table 4.2.1 indicates that the average value of the return on asset (ROA) a profitability proxy of the sampled firm is 18% approx. (0.179173), this indicates that Nigeria Breweries Plc on average earned a net income of 18% on the total asset employed with maximum and minimum value of 0.315200 and 0.050900 respectively. The standard deviation is 0.074168.

On the other hand, the average value of the sampled Nigeria Breweries Plc's triple bottom line accounting disclosure is 0.877273 as measured by Economic disclosure indexes (EcDI) this reflects that on average, this company operates with more than 87% consistency on Economic disclosure indexes with the maximum and minimum value of 93% and 82% approximate respectively. It deviates by 0.040879 from the mean value of the sample of Brewer.

Again, the average value of the sampled Nigeria Breweries Plc's triple bottom line accounting disclosure proxied by Environmental disclosure indexes (EnDI) efficiency is 0.428182; this shows that on average, this company's efficiency in ecological disclosure is 43% with the maximum and minimum value of 0.710000 and 0.150000 respectively. It deviates by 0.202722.

Finally, the average value of the sampled firm's triple bottom line accounting disclosure measured by social disclosure indexes (SDI) is 0.711818. Its maximum and minimum values are 0.930000 and 0.430000 respectively but deviated by 0.200241.

In this case, Skewness coefficient shows that all the variables under study have values less than 1 and this indicates that their frequency distribution is normal. Kurtosis coefficient support the result of Skewness as their coefficient is less than 3. This informs that the variables are normally distributed.

4.3 Test of Hypotheses

The hypotheses were tested with the aid of Eview Statistical Package using regression analysis to test the relationship of the dependent variable and independent variables. To test the hypotheses, regression analysis was used at 95% confidence interval; the level of significance (a-value) is 0.05 (5%). Decision rule: Reject H_0 if p-value (calculated r) is less than a-value (Level of significance).

Hypothesis One

H0: Economic disclosure index does not significantly affect return on asset of Brewery firms in Nigeria**.**

H1 Economic disclosure index significantly affects return on asset of Brewery firms in Nigeria**.**

Table 4.3.1 Result of Least Squares regression model

Dependent Variable: ROA
Method: Least Squares
Date: 07/27/25 Time: 23:34
Sample: 2014 2024
Included observations: 11

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ECDI	1.043220	0.726644	1.435669	0.1942
ENDI	-0.014874	0.170366	-0.087303	0.9329
SDI	-0.138755	0.190015	-0.730235	0.4890
C	-0.630879	0.547691	-1.151888	0.2872

R-squared	0.259795	Mean dependent var	0.179173
Adjusted R-squared	-0.057435	S.D. dependent var	0.074168
S.E. of regression	0.076268	Akaike info criterion	-2.03384 5
Sum squared resid	0.040717	Schwarz criterion	-1.88915 6
Log likelihood	15.18615	Hannan-Quinn criter.	-2.12505 1
F-statistic	0.818947	Durbin-Watson stat	1.723070
Prob(F-statistic)	0.523307		

Source: Researcher's EView 10.0 Output, 2025

From the regression analysis, Table 4.3.1 indicates that there is a positive (t-statistics, 1.435669) but insignificant (p-value, 0.1942) effect of Economic disclosure indexes on Return on Asset of the sampled company. This positive effect implies that a 1% increase in Economic disclosure indexes will tend to increase the level of Return on Asset by 1.043220. By this, Economic disclosure indexes have positive insignificant effect on the Return on Asset of the selected company. However, since p-value, 0.1942 is greater than a-value of 0.05, the null hypothesis is accepted, that is, Economic disclosure indexes do not significantly affect return on asset of Brewery firms in Nigeria**.**

Hypothesis Two

H0: Environmental disclosure indexes do not significantly affect return on asset of Brewery firms in Nigeria.

H1: Environmental disclosure indexes significantly affect return on asset of Brewery firms in Nigeria.

Table 4.3.2 Result of Least Squares regression model
Dependent Variable: ROA
Method: Least Squares
Date: 07/27/25 Time: 23:34
Sample: 2014 2024
Included observations: 11

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ECDI	1.043220	0.726644	1.435669	0.1942
ENDI	-0.014874	0.170366	-0.087303	0.9329
SDI	-0.138755	0.190015	-0.730235	0.4890
C	-0.630879	0.547691	-1.151888	0.2872

R-squared	0.259795	Mean dependent var	0.179173
Adjusted R-squared	-0.057435	S.D. dependent var	0.074168
S.E. of regression	0.076268	Akaike info criterion	-2.033845
Sum squared resid	0.040717	Schwarz criterion	-1.889156
Log likelihood	15.18615	Hannan-Quinn criter.	-2.125051
F-statistic	0.818947	Durbin-Watson stat	1.723070
Prob(F-statistic)	0.523307		

Source: Researcher's EView 10.0 Output, 2025

The same table above also showed that the Environmental disclosure indexes have a negative and insignificant effect on the Return on Asset of the selected company with t-statistics of -0.087303 and p-value of 0. 9329.This portrayed that a 1% increase in Environmental disclosure indexes will tend to decrease the level of the Return on Asset by -0.014874. As such, Environmental disclosure indexes have negative insignificant effect on the Return on Asset of the selected company. However, since p-value, 0.9329 is greater than a-value of 0.05, the null hypothesis is accepted, that is, Environmental disclosure indexes do not significantly affect return on Asset of Brewery firms in Nigeria.

Hypothesis Three

H0: Social disclosure indexes do not significantly affect return on asset of Brewery firms in Nigeria

H1: Social disclosure indexes significantly affect return on asset of Brewery firms in Nigeria

Table 4.3.3 Result of Least Squares regression model

Dependent Variable: ROA
Method: Least Squares
Date: 07/27/25 Time: 23:34
Sample: 2014 2024
Included observations: 11

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ECDI	1.043220	0.726644	1.435669	0.1942
ENDI	-0.014874	0.170366	-0.087303	0.9329
SDI	-0.138755	0.190015	-0.730235	0.4890
C	-0.630879	0.547691	-1.151888	0.2872

R-squared	0.259795	Mean dependent var	0.179173
Adjusted R-squared	-0.057435	S.D. dependent var	0.074168
S.E. of regression	0.076268	Akaike info criterion	-2.033845
Sum squared resid	0.040717	Schwarz criterion	-1.889156
Log likelihood	15.18615	Hannan-Quinn criter.	-2.125051
F-statistic	0.818947	Durbin-Watson stat	1.723070
Prob(F-statistic)	0.523307		

Source: Researcher's EView 10.0 Output, 2025

In contrary, the regression table above shown that Social disclosure indexes have negative (t-statistics, -0.730235) and insignificant (p-value, 0.4890) effect on Return on Asset of the selected company. This negative effect implies that a 1% increase in Social disclosure indexes will tend to decrease the level of Return on Asset by -0.138755. As a result of this, Social disclosure indexes have positive but insignificant effect on the Return on Asset of the selected company. However, since p-value, 0.4890 is greater than a-value of 0.05, the null hypothesis is accepted, that is, Social disclosure indexes do not significantly affect Return on Asset of Brewery firms in Nigeria.

In general, the R^2 measures the percentage of Return on Asset that could be explained by changes in independent variables, Economic disclosure indexes (EcDI), Environmental disclosure indexes (EnDI) and social disclosure indexes (SDI). Here, R^2 adjusted is -0.057435 (-6% approx.) which implies that -6% of variation in Return on Asset could be explained by the effect of independent variables while over 100% could be attributed to other factors capable of effecting changes in Return on Asset of Brewery firms in Nigeria. Here also, the Durbin-Watson statistic is 1.723070. This indicates the absence of autocorrelation in the data series.

4.4 Discussion of findings

This study tested three hypotheses. In the first hypothesis, it was established there is a positive (t-statistics, 1.435669) but insignificant (p-value, 0.1942) effect of Economic disclosure indexes on Return on Asset of the sampled company. By this, Economic disclosure indexes have positive but insignificant effect on the Return on Asset of the selected company. The implication is that a 1% increase in Economic disclosure indexes will tend to increase the level of Return on Asset by 1. 043220. The research report is in consonance with Agu & Amedu (2018) who found positive but insignificant effect of Economic disclosure indexes on the Return on Asset but varies with Osisioma, Nzewi & Nwoye (2015).

The regression result on hypothesis two unarguably presented that Environmental disclosure indexes have a negative and insignificant effect on the Return on Asset of the selected company evident on t-statistics of -0.087303 and p-value of 0.9329.This portrayed that a 1% increase in Environmental disclosure indexes will tend to decrease the level of the Return on Asset by 0.604946. As such, Environmental disclosure indexes have positive significant effect on the Return on Asset of the Nigeria Breweries Plc. This agrees with the research reports Agu & Amedu (2018) and Iliemena, Amedu, & Uagbale-Ekatah, (2023).

Finally, hypothesis three affirms that Social disclosure indexes of the company have negative (t-statistics, -0.730235) and insignificant (p-value, 0.4890) effect on Return on Asset of the selected company. This negative effect implies that a 1% increase in Greenhouse gas emissions management will tend to decrease the level of Return on Asset -0.138755. The finding was also upheld the research findings of Agu & Amedu (2018) but varied with Osisioma, Nzewi & Nwoye (2015) who found a significant relationship between social disclosure and corporate profitability.

In general, it is not arguable that triple bottom line accounting disclosure is capable of exerting insignificant influence on profitability of Brewery firms in Nigeria.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of Findings

The following findings were made concerning the effect of triple bottom line accounting disclosure on profitability of Brewery firms in Nigeria:

i. There is a positive but insignificant effect of Economic disclosure index on Return on Asset of Brewery Firms in Nigeria.

ii. Environmental disclosure index has a negative and insignificant effect on the Return on Asset of Brewery firms in Nigeria.

iii. Social disclosure index has negative and insignificant effect on Return on Asset of Brewery firms in Nigeria.

5.2 Conclusion

The study examined the effect of triple bottom line accounting disclosure on profitability of Brewery firms in Nigeria from period of 2011-2024.

This study tested three hypotheses. In the first hypothesis, it was established there is a positive but insignificant effect of Economic disclosure index on Return on Asset of the Nigeria breweries Plc. This explains the extent of little or no relevance Economic disclosure indexes could be to the Return on Asset of Brewery firms in Nigeria. The research report is in consonance with Agu & Amedu (2018) who found positive but insignificant effect of Economic disclosure index on the Return on Asset but varies with Osisioma, Nzewi & Nwoye (2015).

With the outcome of the test of the hypothesis two, it is not arguable that Environmental disclosure indexes have a negative and insignificant effect on the Return on Asset of Nigeria breweries Plc. This justifies the enormous irrelevance of Environmental disclosure index to profitability of Brewers in Nigeria. This agrees with the research reports Agu & Amedu (2018) and Iliemena, Amedu, & Uagbale-Ekatah, (2023).

Finally, hypothesis three affirms that Social disclosure index of the company have negative and insignificant) effect on Return on Asset of the. This implies that a 1% increase in Social disclosure index will tend to decrease the level of Return on Asset. The finding was also upheld the research findings of Agu & Amedu (2018) but varied with Osisioma, Nzewi & Nwoye (2015) who found a significant relationship between social disclosure and corporate profitability. In general, it is not arguable that triple bottom line accounting disclosure is capable of exerting insignificant influence on profitability of Brewery firms in Nigeria

5.3 Recommendations

Based on the findings of this study, the following recommendations were suggested:

i. Brewery firms in Nigeria should **strengthen the relevance and transparency of economic disclosures** by linking them more clearly to value creation, productivity, and financial strategy.

ii. Brewery firms should **reassess the cost-benefit balance of environmental reporting**, ensuring that such disclosures are **strategically integrated** into operational efficiency, innovation, and risk management processes. Firms should invest in **green technologies and sustainable production methods** that can drive both compliance and financial gains over time.

iii. Social disclosures should be **re-evaluated and aligned with stakeholder engagement strategies**, ensuring that investments in corporate social responsibility (CSR) and community development deliver measurable returns in goodwill, brand reputation, and ultimately financial outcomes. Firms should also adopt **impact-based reporting frameworks** (e.g., GRI Standards or Integrated Reporting) that capture both social and financial value.

5.4 Interpretation and Implication

These findings suggest that, within the brewery sector in Nigeria, sustainability disclosures—particularly in the areas of economic, environmental, and social dimensions—do not have a statistically significant impact on financial performance as measured by ROA. The lack of significance may be attributed to several factors, such as limited stakeholder engagement, superficial or inconsistent disclosure practices, or a disconnect between disclosure activities and operational strategy. This underscores the need for firms to align sustainability reporting with performance-driven strategic objectives to unlock potential financial benefits.

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APPENDIX I
Global Reporting Index Categories and Aspects in the Guidelines

Category 1: Economic
1. Economic Performance
2. Market Presence
3. Indirect Economic Impacts
4. Procurement Practices

Category 2: Environmental
1. Materials
2. Energy
3. Water
4. Biodiversity
5. Emissions
6. Effluents and Waste
7. Products and Services
8. Compliance
9. Transport
10. Overall
11. Supplier Environmental Assessment
12. Environmental Grievance Mechanisms

Category 3: Social
1. **Labor Practices and Decent Work**
   - i. Employment
   - ii. Labor/Management Relations
   - iii. Occupational Health and Safety
   - iv. Training and Education
   - v. Diversity and Equal Opportunity
   - vi. Equal Remuneration for Women and Men
   - vii. Supplier Assessment for Labor Practices
   - viii. Labor Practices Grievance Mechanisms
2. **Human Rights**
   - i. Investment
   - ii. Non-discrimination
   - iii. Freedom of Association and Collective Bargaining
   - iv. Child Labor
   - v. Forced or Compulsory Labor
   - vi. Security Practices
   - vii. Indigenous Rights
   - viii. Assessment Supplier Human Rights Assessment
   - ix. Human Rights Grievance Mechanisms
3. **Society**
   - i. Local Communities

ii. Anti-corruption
iii. Public Policy
iv. Anti-competitive Behavior
v. Compliance
vi. Supplier Assessment for Impacts on Society
vii. Grievance Mechanisms for Impacts on Society

4. **Product Responsibility**
   i. Customer Health and Safety
   ii. Product and Service Labeling
   iii. Marketing Communications
   iv. Customer Privacy
   v. Compliance

Source: Global Reporting Index(GRI) G4,2024

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