

# Triple Bottom Line Accounting And Sustainable Corporate Performance

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## ABSTRACT

The paper seeks to establish the nexus between triple bottom line accounting and sustainable corporate performance management. To achieve the above objective, research questions were raised, hypotheses were formulated, and a review of related literature was made. The descriptive survey method of research design was employed to generate the required data. The population of the study was determined as fifty-six, representing registered chartered accountants in Awka district, Anambra State Capital in Nigeria. The primary data were collected through a structured five point likert scale questionnaire. The data were presented and analyzed using frequencies tables and percentages while the formulated hypotheses were tested using multiple regression analysis with the aid of SPSS version 20. Our findings indicated that the implementation of triple bottom line accounting methodologies in organizations would enable the identification, measurement and allocation of environmental and social costs pertaining to the activities of the organization. Based on this, it was recommended that corporations should implement triple bottom line accounting methodologies to enable them identify, measure and allocate environmental and social costs; and also, provide managers with strategies and techniques for managing performance across the three dimensions. Also by enabling the identification of products with greater environmental and social costs, the profitability of the enterprise could be measured. From a policy perspective the development of triple bottom line accounting, within national, industry and firm-level context to guide corporate managers in determining operating costs of business.

**Keywords:** Triple Bottom Line Accounting, Corporate Performance

## INTRODUCTION

The 'triple bottom line' (TBL) catchphrase was coined by Elkington in 1994 to expand the environmentalist agenda of those working towards sustainability so that it more explicitly incorporates a social dimension (Elkington, 2004). He used the phrase as the basis for his book *Cannibals with Forks* (Elkington, 1998), where he explains that TBL refers to the three bottom lines of "economic prosperity, environmental quality and social justice". This could be attributed to growing demands from stakeholders for more extensive information on the operations and financial standing of businesses, thus necessitating that managers include information on sustainability related issues (Jackson, Boswell and Davis, 2011). The most frequently seen factors used in performance measurement are: economic, environmental, and social ("Global Reporting Initiative," 2006; Wang & Lin, 2007). In the literature, there is no real consensus as to the exact dimensions used for the performance measures (Jackson, Boswell and Davis, 2011). Some other dimensions used are community improvement, environment, entrepreneurship and education (Sher & Sher, 1994) and stakeholder engagement, organizational integrity, and stakeholder activism (Painter-Morland, 2006). In all instances, performance is being measured based on the impact of companies on society as a whole, both now and into the future (Jackson, Boswell and Davis, 2011). In the words of Elkington himself:

'Triple bottom line focuses corporations not just on the economic value they add, but also on the environmental and social value they add – and destroy. At its narrowest, the term 'triple bottom line' is used as a framework for measuring and reporting corporate performance against economic, social and environmental parameters'.

Thus, sustainability regarded as the integration of three performance areas: economic, social and environmental; is viewed as a necessary practice for the survival of modern corporations. According to Middlebrooks et al. (2009, cited in Piper et al., 2012), "the triple bottom line of fiscal, social and environmental success considerably alters how organizations (and stakeholders) measure sustainable success". Since TBL involves additional reporting, businesses will need to incorporate additional information in the reports provided to better communicate with stakeholders (Jackson, Boswell and Davis, 2011). Thus, organizations have come to realize that meeting stakeholder expectations is as necessary a condition for sustainability as the need to achieve overall strategic business objectives (Ballou, Heitger, & Landes, 2009). While maximizing shareholder value continues

to be an overriding concern, companies will not be able to do that over the long term if they don't meet other key stakeholder interests (Ballou, Heitger, & Landes, 2009).

According to a PricewaterhouseCoopers report, *The Value Reporting Revolution: Moving Beyond the Earnings Game*, "to create long-term economic value for society--shareholders and other stakeholders alike--sustainability says that companies must also create social and environmental value." To create transparent reports that provide accurate and reliable data, as well as a fair picture of overall performance, many companies are now reporting results across the "triple bottom line" of economic, environmental and social performance (Ballou, Heitger, & Landes, 2009). Triple-bottom-line reporting, also known as corporate sustainability reporting (CSR), involves reporting nonfinancial and financial information to a broader set of stakeholders than just shareholders (Ballou, Heitger, & Landes, 2009). The reports inform stakeholder groups of the reporting organization's ability to manage key risks (Ballou, Heitger, & Landes, 2009). Because these interests vary, the type of information varies; however, much of it has to do with the company's economic, operational, social, philanthropic and environmental objectives (Ballou, Heitger, & Landes, 2009).

With the shift in societal focus toward environmental longevity, businesses are encouraged to look at the big picture and see their impact on the world around them (Jackson, Boswell and Davis, 2011). A fundamental philosophy propagated today is how imperative it is that businesses address all values in reporting in order to lessen the chance that their activities will cause harm to global resources, not only for today's population but for future generations (Jackson, Boswell and Davis, 2011). Organizations are now looking for efficient financial reporting mechanism that incorporates transparency and accountability for economic, environmental and social cause (Dutta, 2012). Sustainability reporting evaluates the performance of company's based on three distinct parameters such as economic, environmental and societal (Dutta, 2012). Such a reporting mechanism does not only overcome the existing historical cost based accounting principle but also provides a platform so that the company's performance and its impact can be measured and communicated in a more reliable manner (Dutta, 2012). Today stakeholders become more and more aware of the ecological and social footprints adopted by multinational companies (MNCs) worldwide, accountability, transparency and governance issues are considered to be main stream agenda in the corporate boardroom discussion (Dutta, 2012).

The challenge presented to modern day managers is on how to manage performance across the three dimensions of sustainability, in order to derive the synergistic benefits from TBL implementation strategy. The thrust of corporate performance management is to bring together these processes and technologies into an integrated system and unified way of managing your business that is more powerful than its individual parts (PwC, 2008). A true "management system" integrates all areas of the business from a common strategy and vision, through a common business language, and establishes a culture of accountability and results (PwC, 2008). Elkington (1998, p. 72, cited in Mitchell, 2007) argues that the key to managing organizational progress towards sustainability is measurement: "what you can't measure, you are likely to find hard to manage". While he is a fervent believer that it is possible "to measure progress against the triple bottom line", he acknowledges two challenges. First, there is the difficulty in accounting for the social dimension. This is not just a matter of how you measure social attributes. He notes that one of the major challenges of the TBL agenda is that "when we include the social and ethical dimensions of sustainability, the range of sustainability-related issues and impacts grow dramatically" (ibid., p. 94). The second challenge is to develop an approach to measuring progress in an integrated way across the TBL. To specifically assess the nexus between triple bottom line accounting systems and sustainable corporate performance management, the following research questions were formulated:

1. What is the connection between triple bottom line accounting and sustainable environmental performance management?
2. What is the connection between triple bottom line accounting and sustainable social performance management?
3. What is the connection between triple bottom line accounting and sustainable economic performance management?

## Literature Review

### Triple Bottom Line: History And Development

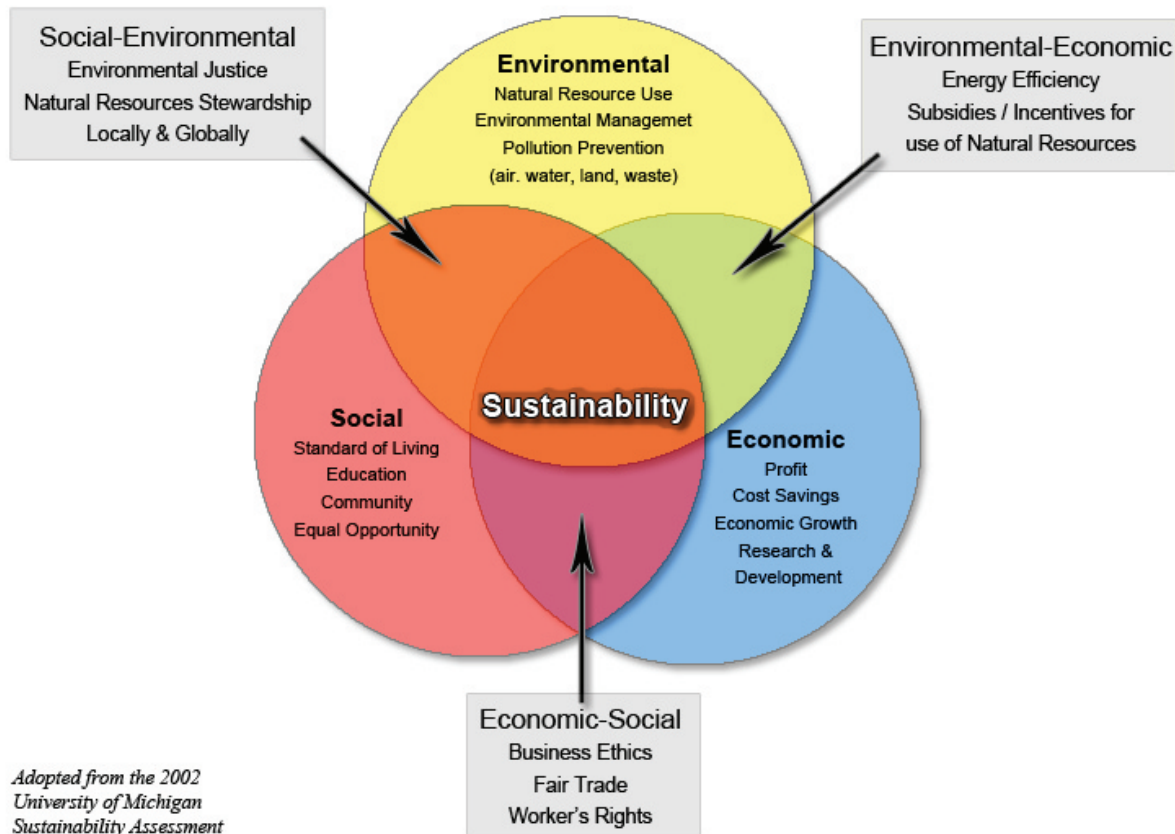
The phrase "the triple bottom line" was first coined in 1994 by John Elkington, the founder of a British consultancy called SustainAbility (Elkington, 1998; 2004). His argument was that companies should be

preparing three different (and quite separate) bottom lines. One is the traditional measure of corporate profit—the “bottom line” of the profit and loss account. The second is the bottom line of a company's “people account”—a measure in some shape or form of how socially responsible an organization has been throughout its operations. The third is the bottom line of the company's “planet” account—a measure of how environmentally responsible it has been. The triple bottom line (TBL) thus consists of three Ps: profit, people and planet. It aims to measure the financial, social and environmental performance of the corporation over a period of time. Only a company that produces a TBL is taking account of the full cost involved in doing business<sup>6</sup>. The triple bottom line is made up of “social, economic and environmental” factors. “People, planet and profit” succinctly describes the triple bottom lines and the goal of sustainability. The phrase, “people, planet, profit”, was also coined by Elkington in 1995 while at SustainAbility, and was later adopted as the title of the Anglo-Dutch oil company Shell's first sustainability report in 1997. As a result of which, one country in which the 3P concept took deep root was The Netherlands.

1. **"People"** pertains to fair and beneficial business practices toward labour and the community and region in which a corporation conducts its business. A TBL company conceives a reciprocal social structure in which the well-being of corporate, labour and other stakeholder interests are interdependent. A triple bottom line enterprise seeks to benefit many constituencies, not exploit or endanger any group of them. The “upstreaming” of a portion of profit from the marketing of finished goods back to the original producer of raw materials, for example, a farmer in fair trade agricultural practice, is a common feature. In concrete terms, a TBL business would not use child labour and monitor all contracted companies for child labour exploitation, would pay fair salaries to its workers, would maintain a safe work environment and tolerable working hours, and would not otherwise exploit a community or its labour force. A TBL business also typically seeks to “give back” by contributing to the strength and growth of its community with such things as health care and education. Quantifying this bottom line is relatively new, problematic and often subjective. The Global Reporting Initiative (GRI) has developed guidelines to enable corporations and NGOs alike to comparably report on the social impact of a business.
2. **"Planet"** (natural capital) refers to sustainable environmental practices. A TBL company endeavors to benefit the natural order as much as possible or at the least do no harm and minimise environmental impact. A TBL endeavour reduces its ecological footprint by, among other things, carefully managing its consumption of energy and non-renewables and reducing manufacturing waste as well as rendering waste less toxic before disposing of it in a safe and legal manner. “Cradle to grave” is uppermost in the thoughts of TBL manufacturing businesses, which typically conduct a life cycle assessment of products to determine what the true environmental cost is from the growth and harvesting of raw materials to manufacture to distribution to eventual disposal by the end user. A triple bottom line company does not produce harmful or destructive products such as weapons, toxic chemicals or batteries containing dangerous heavy metals, for example. Currently, the cost of disposing of non-degradable or toxic products is borne financially by governments and environmentally by the residents near the disposal site and elsewhere. In TBL thinking, an enterprise which produces and markets a product which will create a waste problem should not be given a free ride by society. It would be more equitable for the business which manufactures and sells a problematic product to bear part of the cost of its ultimate disposal. Ecologically destructive practices, such as overfishing or other endangering depletions of resources are avoided by TBL companies. Often environmental sustainability is the more profitable course for a business in the long run. Arguments that it costs more to be environmentally sound are often specious when the course of the business is analyzed over a period of time. Generally, sustainability reporting metrics are better quantified and standardized for environmental issues than for social ones. A number of respected reporting institutes and registries exist including the Global Reporting Initiative, CERES, Institute 4 Sustainability and others.
3. **"Profit"** is the economic value created by the organization after deducting the cost of all inputs, including the cost of the capital tied up. It therefore differs from traditional accounting definitions of profit. In the original concept, within a sustainability framework, the “profit” aspect needs to be seen as the real economic benefit enjoyed by the host society. It is the real economic impact the organization

has on its economic environment. This is often confused to be limited to the internal profit made by a company or organization (which nevertheless remains an essential starting point for the computation). Therefore, an original TBL approach cannot be interpreted as simply traditional corporate accounting profit *plus* social and environmental impacts unless the "profits" of other entities are included as a social benefit.

## *The Three Spheres of Sustainability*



Source: [www.vanderbilt.edu](http://www.vanderbilt.edu)

Table 1: Seven Key Drivers of TBL

S/N	Drivers	Old Paradigm	New Paradigm
1	Markets	Compliance	Competition
2	Values	Hard (economic figures)	Soft (additional values)
3	Communication	Closed (internal)	Open (wider stakeholder analysis)
4	Partnerships	Subvention	Symbiosis (win win)
5	Life cycle technology	Focused on products	Focused on functions
6	Time	Wide	Longer
7	Corporate governance	Exclusive	Inclusive

Source: Elkington (1997; 2004)

**Revolution 1** will be driven by competition, largely through markets. For the foreseeable future, business will operate in markets that are more open to competition, both domestic and international, than at any other time in living memory. The resulting economic earthquakes will transform our world (Elkington, 2004);

**Revolution 2** is driven by the worldwide shift in human and societal values. Most business people, indeed most people, take values as a given, if they think about them at all. Yet, our values are the product of the most powerful programming that each of us has ever been exposed to. When they change, as they seem to do with every succeeding generation, entire societies can go thixotropic. Companies that have felt themselves standing on solid ground for decades suddenly find that the world as they knew it is being turned upside down and inside out (Elkington, 2004);

**Revolution 3** is well under way, is being fuelled by growing international transparency and will accelerate. As a result, business will find its thinking, priorities, commitments and activities under increasingly intense scrutiny worldwide. Some forms of disclosure will be voluntary, but others will evolve with little direct involvement from most companies. In many respects, the transparency revolution is now ‘out of control’. This opening up process is itself being driven by the coming together of new value systems and radically different information technologies, from satellite television to the internet. The collapse of many forms of traditional authority also means that a wide range of different stakeholders increasingly demand information on what business is going and planning to do. Increasingly, too, they are using that information to compare, benchmark and rank the performance of competing companies (Elkington, 2004);

**Revolution 4** is driven by and – in turn – is driving the transparency revolution. Companies are being challenged about the TBL implications either of industrial or agricultural activities far back down the supply chain or about the implications of their products in transit, in use and – increasingly – after their useful life has ended. Here we are seeing a shift from companies focusing on the acceptability of their products at the point of sale to a new emphasis on their performance from cradle to grave – that is, from the extraction of raw materials right through to recycling or disposal (Elkington, 2004);

**Revolution 5** will dramatically accelerate the rate at which new forms of partnership spring up between companies, and between companies and other organizations – including some leading campaigning groups. Organizations that once saw themselves as sworn enemies will increasingly flirt with and propose new forms of relationship to opponents who are seen to hold some of the keys to success in the new order (Elkington, 2004);

**Revolution 6** will promote a profound shift in the way that we understand and manage time. As time-based competition, building on the platform created by techniques such as ‘just in time’, continues to accelerate the pace of competition, the need to build in a stronger ‘long time’ dimension to business thinking and planning will become ever-more pressing (Elkington, 2004);

**Revolution 7** is driven by each of the other revolutions and is also resulting in a totally new spin being put on the already energetic corporate governance debate. Now, instead of just focusing on issues such as the pay packets of ‘fat cat’ directors, new questions are being asked. For example, what is business for? Who should have a say in how companies are run? What is the appropriate balance between shareholders and other stakeholders? And what balance should be struck at the level of the triple bottom line? (Elkington, 2004).

## 2.2 BENEFITS OF TBL IMPLEMENTATION

1. Increase revenue;
2. Reduce energy expenses;
3. Reduce waste expenses;
4. Reduce materials and water expenses;
5. Increase employee productivity;
6. Reduce hiring and attrition expenses; and,
7. Reduce strategic and operational risks.

The chart below presents the benefits of TBL reporting identified by Kolk (2004)

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#### *Reasons for reporting*

- enhanced ability to track progress against specific targets
- facilitating the implementation of the environmental strategy
- greater awareness of broad environmental issues throughout the organisation
- ability to clearly convey the corporate message internally and externally
- improved all-round credibility from greater transparency
- ability to communicate efforts and standards
- licence to operate and campaign
- reputational benefits, cost savings identification, increased efficiency, enhanced business development opportunities and enhanced staff morale

#### *Reasons for not reporting*

- doubts about the advantages it would bring to the organisation
  - competitors are neither publishing reports
  - customers (and the general public) are not interested in it, it will not increase sales
  - the company already has a good reputation for its environmental performance
  - there are many other ways of communicating about environmental issues
  - it is too expensive
  - it is difficult to gather consistent data from all operations and to select correct indicators
  - it could damage the reputation of the company, have legal implications or wake up 'sleeping dogs' (such as environmental organisations)
- 

Suggett and Goodsir (2000, cited in Potts, 2004) identified several generic characteristics of a TBL initiative, they include:

1. **Accountability:** This refers to an organization being accountable to stakeholders, employees and the broader community in terms of the implementation of sustainable development.
2. **Transparency:** This characteristic refers to the organization having an obligation and responsibility to be transparent about their activities and decision making, especially in terms of sustainability. A TBL should make explicit a judgments, assumptions, and uncertainties in data and interpretations and ensure that the methods are available for all to observe.
3. **Integrated planning and management:** For an organization to deliver economic prosperity, environmental quality, and social wellbeing requires these dimensions to be reflected in strategic planning, operational management systems, policy development, and education systems.
4. **Committed to Stakeholder Engagement:** Interacting with internal staff and managers and external stakeholders is a process that informs objectives and is developed from a base of rigorous research and dialogue. A commitment to considering stakeholder's perspective's and to developing strategies for engagement is embraced as a core activity of a TBL approach.
5. **Multi-Dimensional Measurement and Reporting:** Analysis and verification of economic, environmental and social performance, together with structured communication of the results.

### **CORPORATE PERFORMANCE MANAGEMENT**

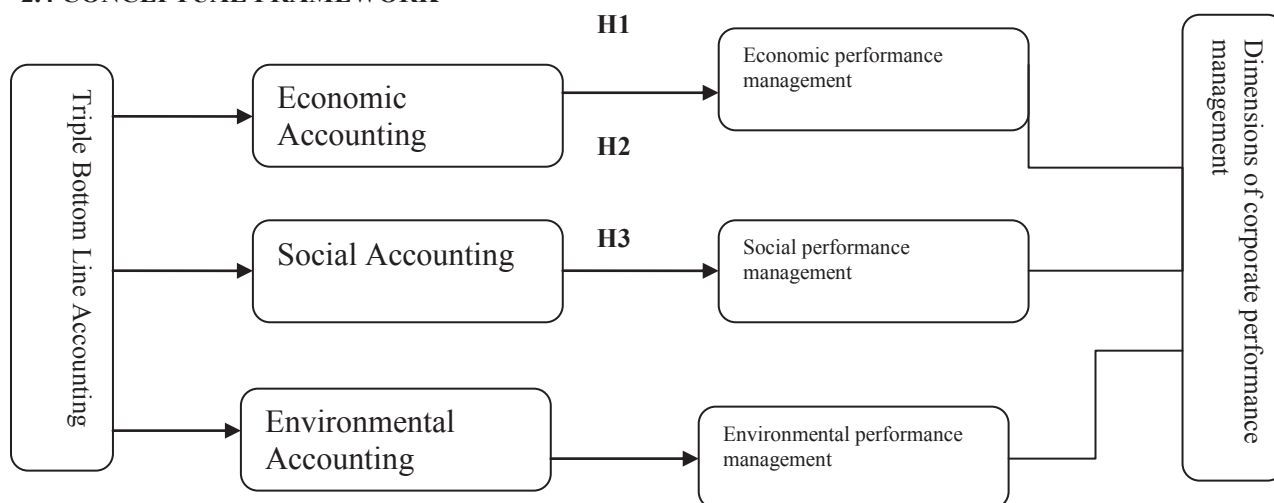
Continuous performance is the objective of any organization because only through performance, are organizations able to grow and progress (Gavrea, Ilies & Stegorean, 2011). The concept of corporate performance is fuzzy, as scholars often agree that there is no universal definition of the concept. Scholars often agree that corporate performance is a function of time and organizational context. Daft (1991, cited in Fauzi et al., 2010) defined corporate performance as the organization's ability to attain its goals by using resources in an efficient and effective manner. Lebens & Euske (2006, cited in Gavrea et al., 2011) provide a set of definitions to illustrate the concept of organizational performance:

- Performance is a set of financial and nonfinancial indicators which offer information on the degree of achievement of objectives and results;
- Performance is dynamic, requiring judgment and interpretation;
- Performance may be illustrated by using a causal model that describes how current actions may affect future results;
- Performance may be understood differently depending on the person involved in the assessment of the organizational performance (e.g. performance can be understood differently from a person within the organization compared to one from outside);
- To define the concept of performance is necessary to know its elements characteristic to each area of responsibility; and,
- To report an organization's performance level, it is necessary to be able to quantify the results.

Venktrakan & Ramanugan (1986, cited in Fauzi et al., 2010) divide corporate performance into operational and financial performances. Operational performance includes: (i) market share, (ii) product quality, and (iii) marketing effectiveness. Financial performance is broken down into two subcategories: (i) market-based performance (e.g., stock price, dividend payout and earnings per share) and (ii) accounting-based performance (e.g., return on assets and return on equity). The concept of corporate performance in accounting literatures refers normally to financial aspects such as profit, return on assets (ROA) and economic value added (EVA), using the nick name of 'the bottom line' (Fauzi et al., 2010). Kaplan and Norton (1992, cited in Fauzi et al., 2010) coined the extended measurement of corporate performance as balanced scorecard, where the core idea is to balance the domination of financial and non-financial aspects in corporate performance. Simons (2000, cited in Fauzi et al., 2010) opined that corporate performance is a function of market mechanism reflected in the way the company interacts with the financial, factor and customer product markets. In the financial market, corporate performance strives to satisfy shareholders and creditors in the form of financial indicators. In the factor market, such as suppliers and other production owners, the corporate ability to pay in time and in agreed amount are important in evaluating corporate performance (Fauzi et al., 2010). Finally, from the perspective of customer product market, corporate performance will be evaluated by parties in the market based on the ability of the corporation to deliver value to customers with affordable price which is the net effect, in turn, will be indicated in the corporate revenue (Fauzi et al., 2010).

Organizations today face similar challenges – enhance price performance, increase customer satisfaction and retention, and improve productivity and efficiency, while streamlining business processes and driving bottom-line growth – a tall order, indeed! Rather than slow down to examine every nook and cranny of the business through a microscope, progressive organizations are taking a more holistic approach by focusing on execution from top to bottom, with clearly defined goals, strategies and metrics. Corporate performance management (CPM) is a process that aligns goals, metrics, people and technology in order to improve performance across the entire organization. Let's examine some of the key benefits that can be achieved through CPM implementation from both the business and technology perspectives, and how digital dashboards produce a view into measuring and monitoring action and results<sup>7</sup>. Corporate performance management (CPM) is the area of [business intelligence](#) (BI) involved with monitoring and managing an organization's performance, according to key performance indicators ([KPIs](#)) such as revenue, return on investment ([ROI](#)), overhead, and operational costs. CPM is also known as business performance management (BPM) or enterprise performance management (EPM).

## 2.4 CONCEPTUAL FRAMEWORK



Source: Author's Conceptualization

### Research Design & Methodology

A descriptive study was carried out. This comprises measures used to determine and interpret the mean position of the general average perception of the respondents. Computation is made using the following formula:

$$\frac{(RSA) WSA + (RA) WA + (RU) (WU) + (RD) WD + RSD (WSD)}{N}$$

Where:

- RSA = Number of respondents for strongly agreed
- WSA = Weight of strongly agree
- RA = Number of respondent for agree
- WA = Weight of agree
- RU = Number of respondent for undecided
- WU = Weight of undecided
- RSD = Number of respondents for strongly disagree
- WSD = Weight of strongly disagree
- NL = Total number of respondents

The questions were based on a structured five point Likert scale with the following options: Strongly agree (SA); Agree (A); Indifferent (ID); Disagree (D); Strongly disagree (SD) with the associated weights of 5, 4, 3, 2 and 1 respectively. Respondents consist of registered chartered accountants; representing members of the Institute of Chartered Accountants of Nigeria domiciled (practicing) in Awka, the Anambra State Capital in Nigeria. This number presently fifty-six was obtained from consultation in the District Society of the Institute.

The data collected for this study were statistically presented and analyzed. 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.

### Consider Analysis Result for H1:

H<sub>1</sub>: There is a relationship between triple bottom line accounting and sustainable environmental performance management.



Table 4.1.2: Descriptive Statistics of Questionnaire

Descriptive Statistics			
	N	Mean	Std. Deviation
The implementation of triple bottom line accounting in organizations would provide managers with strategies and techniques for managing corporate environmental performance	56	4.1250	1.09648
Triple bottom line accounting enables the identification of environmental costs affecting the business	56	4.4286	1.12585
Triple bottom line accounting enables the allocation of environmental costs affecting the business	56	4.6429	.69879
Triple bottom line accounting enables the measurement of environmental costs affecting the business	56	3.8036	1.49447

Source: Field Survey, 2013

Table 4.2.1: Model Summary for Hypothesis 1

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.406 <sup>a</sup>	.164	.116	1.03079

a. Predictors: (Constant), Triple bottom line accounting enables the measurement of environmental costs affecting the business, Triple bottom line accounting enables the allocation of environmental costs affecting the business, Triple bottom line accounting enables the identification of environmental costs affecting the business  
**SOURCE: SPSS VER. 20**

From table 4.2.1 above, **R Square** (a measure of how much variance in the dependent variable is explained by the model) had a value of .164. This means that our model (which includes measurement of environmental costs; allocation of environmental costs and identification of environmental costs) explains 16.4 per cent of the variance in sustainable environmental performance management. The implication of this low R Square score is the presence of other factors which are necessary for inclusion in order to achieve sustainable environmental performance management.

Table 4.2.2: ANOVA Table for Hypothesis 1

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	10.874	3	3.625	3.411	.024 <sup>b</sup>
1 Residual	55.251	52	1.063		
Total	66.125	55			

a. Dependent Variable: The implementation of triple bottom line accounting in organizations would provide managers with strategies and techniques for managing corporate environmental performance  
 b. Predictors: (Constant), Triple bottom line accounting enables the measurement of environmental costs affecting the business, Triple bottom line accounting enables the allocation of environmental costs affecting the business, Triple bottom line accounting enables the identification of environmental costs affecting the business  
**SOURCE: SPSS VER. 20**

**Decision:**  $f_{\text{calculated}} > f_{\text{table value}}$                       Reject the null hypothesis

$f_{\text{table value}} > f_{\text{calculated}}$                       Accept the null hypothesis

The table above is used to assess the statistical significance of the model. Since the F-computed  $3.411 \geq F$ -critical value of 2.76, the null hypothesis is rejected and the alternate accepted. This implies that 'there is a relationship between triple bottom line accounting and sustainable environmental performance management'.

**Table 4.2.3: Coefficients Table for Hypothesis 1**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3.225	.985		3.276	.002
1 Triple bottom line accounting enables the identification of environmental costs affecting the business	.191	.142	.196	1.351	.182
1 Triple bottom line accounting enables the allocation of environmental costs affecting the business	-.173	.216	-.110	-.801	.427
1 Triple bottom line accounting enables the measurement of environmental costs affecting the business	.225	.110	.307	2.054	.045

a. Dependent Variable: The implementation of triple bottom line accounting in organizations would provide managers with strategies and techniques for managing corporate environmental performance

**SOURCE: SPSS VER. 20**

The largest beta value obtained was for environmental cost measurement (.307), following this is identification of environmental cost (.196) and lastly environmental cost allocation (-.110).

**Consider Analysis Result for H2:**

H<sub>1</sub>: There is a relationship between triple bottom line accounting and sustainable social performance management.

Table 4.1.3: Descriptive Statistics of Questionnaire

Descriptive Statistics			
	N	Mean	Std. Deviation
The implementation of triple bottom line accounting in organizations would provide managers with strategies and techniques for managing corporate social performance	56	4.0000	1.27920
Triple bottom line accounting enables the identification of social costs affecting the business	56	4.1964	1.31315
Triple bottom line accounting enables the allocation of social costs affecting the business	56	4.2321	1.17537
Triple bottom line accounting enables the measurement of social costs affecting the business	56	3.4643	1.60640

Source: Field Survey, 2013

**Table 4.2.4: Model Summary for Hypothesis 2**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.554 <sup>a</sup>	.307	.267	1.09489

a. Predictors: (Constant), Triple bottom line accounting enables the measurement of social costs affecting the business, Triple bottom line accounting enables the identification of social costs affecting the business, Triple bottom line accounting enables the allocation of social costs affecting the business

**SOURCE: SPSS VER. 20**

From table 4.2.4 above, **R Square** had a value of .307. This means that our model (which includes measurement of social costs; identification of social costs and allocation of social costs) explains 30.7 per cent of the variance in sustainable social performance management. The implication of this R Square score is the presence of other

factors which are necessary for inclusion in order to achieve sustainable social performance management in organizations.

**Table 4.2.5: ANOVA Table for Hypothesis 2**

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	27.664	3	9.221	7.692	.000 <sup>b</sup>
Residual	62.336	52	1.199		
Total	90.000	55			

a. Dependent Variable: The implementation of triple bottom line accounting in organizations would provide managers with strategies and techniques for managing corporate social performance

b. Predictors: (Constant), Triple bottom line accounting enables the measurement of social costs affecting the business, Triple bottom line accounting enables the identification of social costs affecting the business, Triple bottom line accounting enables the allocation of social costs affecting the business.

**SOURCE: SPSS VER. 20**

**Decision:**

$f_{\text{calculated}} > f_{\text{table value}}$                       Reject the null hypothesis

$f_{\text{table value}} > f_{\text{calculated}}$                       Accept the null hypothesis

Since the F-computed  $7.692 \geq F$ - critical value of 2.76, the null hypothesis is rejected and the alternate accepted. This implies that *'there is a relationship between triple bottom line accounting and sustainable social performance management'*.

**Table 4.2.6: Coefficients Table for Hypothesis 2**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.819	.625		2.910	.005
Triple bottom line accounting enables the identification of social costs affecting the business	.405	.132	.416	3.077	.003
1 Triple bottom line accounting enables the allocation of social costs affecting the business	-.041	.151	-.038	-.273	.786
Triple bottom line accounting enables the measurement of social costs affecting the business	.189	.117	.238	1.611	.113

a. Dependent Variable: The implementation of triple bottom line accounting in organizations would provide managers with strategies and techniques for managing corporate social performance.

**The largest beta value obtained was for social cost identification (.416), following this is measurement of social cost (.238) and lastly social cost allocation (-.038).**

**Consider Analysis Result for H3:**

H<sub>1</sub>: There is a relationship between triple bottom line accounting and sustainable economic performance management.

Descriptive Statistics			
	N	Mean	Std. Deviation
The implementation of triple bottom line accounting in organizations would provide managers with strategies and techniques for managing corporate economic performance	56	4.4464	.95193
Profitability of corporations could be improved by implementing triple bottom line accounting methodologies, by enabling the identification of products with greater environmental and social costs to the organization	56	4.5893	.84803
The market share of corporations could be improved by implementing triple bottom line accounting methodologies, by providing management with information needed for preparing social and environmental reports useful for stakeholder communication	56	4.5179	.93402
Valid N (listwise)	56		

Source: Field Survey, 2013

**Table 4.2.7: Model Summary for Hypothesis 3**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.438 <sup>a</sup>	.192	.162	.87155

a. Predictors: (Constant), The market share of corporations could be improved by implementing triple bottom line accounting methodologies, by providing management with information needed for preparing social and environmental reports useful for stakeholder communication , Profitability of corporations could be improved by implementing triple bottom line accounting methodologies, by enabling the identification of products with greater environmental and social costs to the organization

**SOURCE: SPSS VER. 20**

From table 4.2.7 above, **R Square** had a value of .192. This means that our model explains 19.2 per cent of the variance in sustainable economic performance management. The implication of this R Square score is the presence of other factors which are necessary for inclusion in order to achieve sustainable economic performance management in organizations.

**Table 4.2.8: ANOVA Table for Hypothesis 3**

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	9.581	2	4.790	6.307	.003 <sup>b</sup>
Residual	40.258	53	.760		
Total	49.839	55			

a. Dependent Variable: The implementation of triple bottom line accounting in organizations would provide managers with strategies and techniques for managing corporate economic performance

b. Predictors: (Constant), The market share of corporations could be improved by implementing triple bottom line accounting methodologies, by providing management with information needed for preparing social and environmental reports useful for stakeholder communication , Profitability of corporations could be improved by implementing triple bottom line accounting methodologies, by enabling the identification of products with greater environmental and social costs to the organization.

**SOURCE: SPSS VER. 20**

**Decision:**

$$f_{\text{calculated}} > f_{\text{table value}}$$

Reject the null hypothesis

$$f_{\text{table value}} > f_{\text{calculated}}$$

Accept the null hypothesis

Since the F-computed  $6.307 \geq$  F- critical value of 2.76, the null hypothesis is rejected and the alternate accepted. This implies that *'there is a relationship between triple bottom line accounting and sustainable economic performance management'*.

**Table 4.2.9: Coefficients Table for Hypothesis 3**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.774	.852		2.081	.042
Profitability of corporations could be improved by implementing triple bottom line accounting methodologies, by enabling the identification of products with greater environmental and social costs to the organization	.174	.139	.155	1.257	.214
The market share of corporations could be improved by implementing triple bottom line accounting methodologies, by providing management with information needed for preparing social and environmental reports useful for stakeholder communication	.415	.126	.407	3.295	.002

a. Dependent Variable: The implementation of triple bottom line accounting in organizations would provide managers with strategies and techniques for managing corporate economic performance

**SOURCE: SPSS VER. 20**

### Discussion of Findings, Conclusion and Recommendations

The results of this study corroborate previous studies (see Fauzi et al., 2010; with varying organizational measurement factors) thus, establishing the relationship between sustainability reporting and organizational performance. More specifically, The following findings emanated from this study:

1. Respondents perceived that the implementation of triple bottom line accounting in organizations would enable managers identify environmental and social costs affecting the business;
2. Respondents perceived that the implementation of triple bottom line accounting in organizations would enable managers allocate environmental and social costs affecting the business;
3. Respondents perceived that the implementation of triple bottom line accounting in organizations would enable managers measure environmental and social costs affecting the business;
4. 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;
5. By enabling the identification of products with greater environmental and social costs to the organization, the profitability of the enterprise could be measured as well as improved; and,
6. The market share of corporations could be improved by implementing triple bottom line accounting methodologies, by providing management with information needed for preparing social and environmental reports useful for stakeholder communication.

As the public become increasingly aware of the growing social and environmental consequences of modern day business activities, CSR maintains the forefront of modern business establishment. Managers are therefore forced to adopt and implement systems capable of enabling them identify, allocate and measure the impacts of their activities in their environment. Predicated upon the above findings, the nexus of TBL accounting on sustainable corporate performance is established. The current speed of the globalization process facilitated by rapid advances in information technology (ICT) has posed a serious challenge for 21<sup>st</sup> century corporations. Thus, corporate survival is a function of the extent to

which organizations react positively to economic and corporate troughs. Consequently, the paper recommends the following:

1. Organizations should adopt and implement triple bottom line accounting methodologies to enable them identify, allocate and measure environmental and social costs affecting the business, and provide managers with strategies and techniques for managing corporate environmental, social and economic performance;
2. These triple bottom line systems should be developed within the national, industry and firm-level context to enable managers account for specific costs of operations affecting them;
3. The implementation of triple bottom line accounting in organizations would enable managers identify products with greater environmental and social costs to the organization, these could become a useful measure in department performance evaluation and product profitability assessment;
4. A necessary first step in the preparation of triple bottom line reports is the implementation of TBL accounting methodologies in the organization; these could serve as useful instruments in stakeholder conflict management.

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