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The Impact of Strategic Management Accounting on Corporate Sustainability in Nigerian Banks

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Abstract

The banking sector is a core element of any nation and, the need for banks to operate in a manner that will ensure their continued relevance and sustainability cannot be over-emphasized. This study investigates the Strategic Management Accounting (SMA) practices of Nigerian Banks with the aim to assess their impact on corporate sustainability. The specific objectives of the study were to evaluate the impact of SMA usage by the banks on their Economic, Social and Environmental sustainability. The study adopted a survey research design to obtain data from 102 accounts and finance personnel of fourteen commercial banks in Nigeria. Descriptive statistics, correlation and regression techniques were applied to analyze the data. The results showed that SMA usage by Nigerian Banks has a strong and positive relationship and also a significant impact on the economic, environmental and social sustainability. Usage of SMA also had a significant impact on the overall sustainability of the Banks. It is recommended that banks' management teams key into the usefulness of SMA as a meaningful internal reporting tool that aids the quantitative and qualitative evaluation of performances. SMA usage is also recommended because it will provide a means for banks to assess the economic, social and environmental impact of their activities so that they can focus on measures that fosters sustainability.

Keywords: strategic management accounting, economic sustainability, social sustainability, environmental sustainability, corporate sustainability, Nigerian banks.

1. Introduction

The modern day business environment is constantly changing because it is characterised with multiple challenges, unpredictability and increased risk and uncertainty. Significant changes in globalization, Information and Communication Technologies (ICTs) and production technologies have all led to a growing requirement for corporate social responsibility requirements from corporations especially in environmental and social regards (Abushaiba & Zainuddin, 2012; Kirli & Gümüş, 2011). Similarly, the global increase in concerns about sustainability and the acceleration in the sustainability reports' interpretation in countries across the globe indicate that organisations are becoming interested on how to improve their sustainable

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business practices (Ioannou & Serafeim, 2014). Researchers have also advocated for improved and quality information with respect to sustainable practices (Bebbington & Gray, 2001; Albelda, 2011).

There are three dimensions of sustainability, these are social responsibility, economic viability, and environmental responsibility (Elkington, 2004). Gould (2011) asserts that environmental and social responsibilities are inseparable from economic viability and researchers are of the opinion that because of this inseparability it is crucial that managers and management accountants treat all the dimensions of sustainability as a vital aspect of their decision-making process (Albelda, 2011; Ferreira, Moulang & Hendro, 2010). Management accountants are responsible for aiding decision-making functions in an organization however, it has been noted that conventional accounting technique used by them have been inadequate in addressing the modern day challenges of corporations because it focuses mainly on profit optimisation and cost minimization (Ramljak & Rogosic, 2012). Strategic Management Accounting (SMA) was conceived as a subset of accounting to combat the narrow focus of traditional management accounting and to facilitate strategic decision making and strategic management of firms. SMA was defined by Simmonds (1981) as "the provision and analysis of management accounting data about business and its competitors, for use in developing and monitoring business strategy". To Roslender and Hart (2003), SMA is about making management accounting more strategic. Considering that SMA involves the application of strategy-driven and externally-orientated management accounting techniques, it is conceivable that the deployment of SMA could be a strategy to improve sustainability practice of organisations.

The literature on SMA practices and techniques as well as the necessary steps to be taken to expedite organisation's decision-making process with respect to sustainability issues is diverse and at best contradictory. Despite the irresistible support for a shift towards ensuring sustainable business practices of corporate organizations, empirical evidences on the roles of SMA in ensuring sustainability of businesses have come up with mixed outcomes (Angelakis, Theriou & Floropoulos, 2010; Hyvonen, 2005; Mevellec & Lebas, 2010; Roslender & Hart, 2002; Aboramadan & Borgonovi, 2016; Santini, 2013). The issue of sustainability is particularly topical in the financial sector because the banking system is a core element of the economic system critical to the survival of the economy of a nation. The need to ensure the continued existence of financial institutions to prevent a collapse of the economy of a nation cannot be overemphasized. The relevance of the discourse on corporate sustainability to the banking sector in Nigeria is reiterated by the history of bank failures in Nigeria. Between 1994 and 2006, there were 45 failed banks which had their licence revoked by the Central Bank of Nigeria and since then till date a further 22 banks have been liquidated (NDIC, 2020; Iwedi, 2017)

Also the adoption of SMA requires the availability and comprehensive analysis of economic, social and environmental information. In the Nigeria environment there is a problem with the availability of reliable data for different purposes and the inability to have readily available information for the purpose of analysis and decision making hinders the extent to which organizations in Nigeria can take advantage of the benefits of SMA. The peculiarities of the socio-economic landscape of Nigeria as well as the dearth of evidence to support the usage and impact of the adoption of SMA techniques in Nigerian firms and especially in the banking sector is yet to be firmly established. Most of the studies on SMA in Nigeria have concentrated on its impact on financial performance and on the manufacturing sector (Akenbor & Okoye, 2012; Oboh & Ajibolade, 2017; Ojua, 2016; Oyewo & Ajibolade, 2019;)

It is therefore on this premise that this study sought to answer the following research questions: how does SMA usage impact on the economic sustainability, environmental sustainability, social sustainability and overall sustainability of Nigerian banks? The next sections of this paper present the literature review, research methods adopted for the study and the findings, conclusion and recommendations for the study.

2. Literature Review

The Concept of Strategic Management Accounting

Strategic Management Accounting (SMA) is a subset of management accounting and it focuses on techniques, tools and practices that facilitate strategic decisions and strategic management processes in an organization (Bhimani and Langfield-Smith, 2007; Hoque, 2002). Despite increased research interest on the topic there is still no consensus as regards what constitutes SMA. Simmonds (1981, p.26) defined SMA as "the provision and analysis of management accounting data about business and its competitors, for use in developing and monitoring business strategy". To Cooper and Slagmulder (1999) SMA can be considered as the application of

cost management techniques to reduce cost and enhance the strategic position of a firm. Roslender and Hart (2003) also opine that the aim of SMA is to make management accounting more strategic.

Management accounting techniques that are strategically-oriented is distinct from conventional management accounting techniques by their environmental (outward-looking) or long-term (forward-looking) orientations (Frezatti, Bido, Cruz & Machado, 2015; Cadez & Guilding, 2012; Hoque, 2003). An aggregate of 16 techniques categorized under five SMA themes were presented by Cadez and Guilding (2008). The categorization is presented in the table below

Table 1: Grouping of SMA techniques

SMA Categories	SMA Techniques
Strategic Costing	Attribute Costing
	Life-cycle costing
	Quality Costing
	Target Costing
	Value Chain Costing
Strategic Planning, Control and Performance Management	Benchmarking
	Integrated Performance Measurement
Strategic Decision Making	Strategic Cost Management
	Strategic Pricing
	Brand Valuation
Competitor Accounting	Competitor Cost Assessment
	Competitive Position Monitoring
	Competitor Performance Appraisal
Customer Accounting	Customer Profitability Analysis
	Lifetime Customer Profitability Analysis
	Valuation of Customers as Assets

Source: Cadez and Guilding, 2008

The SMA category of strategic costing involves a purposeful process of decision making that seeks to align the firm's cost structure with its strategy. It encompasses an analysis and comparison of all costs of the activities of a firm with the goal of determining which costs supports the firm's strategic position and which have a negative or no impact on the achievement of strategy. The SMA category of strategic planning, control and performance management involves the use of techniques that helps to develop and create to create systems that will be implemented to achieve results in an organization. It entails the creation of a comprehensive blueprint of the long term strategy of a firm, the breakdown of the means required to be put in place for the execution of set plans, the monitoring of performance against goals and the measurement of results to determine success. Grigore, Bagu and Radu (2009, pg 277) present that "performance management strategy aims to provide the means through which better results can be obtained from the organization, teams and individuals by understanding and managing performance within an agreed framework of planned goals, standards and competence requirements". The overall objective of strategic planning, control and performance management is to enable an entity determine activities that drive results.

Strategic decision making as a category of SMA aims to facilitate the determination of the best course of action for an entity to achieve its long term goals or vision. It involves the use of tools that help to provide a fit between the short term plans and long term goals of an entity. Competitor accounting involves the consideration of accounting information about competitors that facilitates a comprehensive understanding of their positions as regards cost and finance in order to forecast the future strategic behaviour of the competitors and determine one's own competitive position (Ahmad & Zabri, 2016). The SMA category of customer accounting involves the use of accounting techniques to provide information about customers that will create value for the firm. Customer accounting is customer data driven and draws on the use of analytical tools in marketing, management accounting and financial reporting to provide insights into customer behaviour for value creation (Bonacchi & Perego, 2019). The SMA techniques discussed in the categories above all aim to

influence the policies and actions of an organization such that, ultimately profitability, competitive advantage and the continued existence of the organization is ensured leading to the sustainability of the organization.

The Concept of Sustainability

Sustainability over the years has become a subject of discourse amongst academics, business analysts, governments and other key stakeholders. The increasing debate on the issue of sustainability was expedited by concerns over the frequent occurrences of natural and man-made environmental disasters such as oil spillage, flooding and landslides among others (Iqbal, Ahmad, Hamad, Bashir & Sattar, 2014). Various organizations and regulatory institutions across the globe emphasized that firms must pay serious attention to the social, environmental and economic effects of their activities (James, 2013) and credence is given to firms that are perceived to be engaging in their activities in a sustainable manner.

Sustainability disclosure by firms facilitates the provision of information about relations between companies with respect to the environment, employees, society and consumer issues (Marx & Van Dyk, 2011). Sustainability disclosure can also be regarded as a broadening of the financial disclosure system and a response to the increased expectation of society as regards the impact of business endeavours on the economy (Marx & Van Dyk, 2011). Sustainability reporting transcends the financial disclosure in the annual reports of company to encompass every information disclosed as regards the environmental and social effect of a company's activities to its stakeholders.

The Global Reporting Initiative (GRI) guideline is the widely-accepted and commonly- applied framework for sustainability reporting globally (Maguire, 2011; Hindley & Buys, 2012). The GRI is a rigorous framework for sustainability reporting. The GRI G4 which is a recent GRI framework broadly categorised sustainability disclosures into three, economic, environmental and social performance indicators **(**GRI, 2013a). The GRI also published additional guidelines for banks, which was adopted in this study, and are briefly discussed thus (GRI, 2013b);

(a) Economic sustainability: The viewpoint about economic sustainability considers how the activities of an organization impacts on the economic conditions and resource flow of stakeholders at all levels from the local community to internationally. Under this perspective, variables such as procurement practices, the use and flow of resources, pricing policies, market presence, competitiveness in relation to others as well as all indirect economic impact on stakeholders are considered.

(b) Environmental sustainability: Perspectives on environmental sustainability looks at how the activities of an entity affects nature and, whether it complies with environmental regulations. Under this perspective all resources in the living and non-living natural systems including water, land, air, ecosystems and impact of activities on the use of energy, emissions, effluents and wastes are considered. Indicators of environmental sustainability include; effluents and waste, materials, water, energy, emissions, products and services, compliance, transport, biodiversity, environmental assessment, and environmental grievance mechanisms.

(c) Social sustainability: Social sustainability has an outlook that focuses on the impact of an entity's on the social systems within which it operates. Indicators on social sustainability covers the following four areas; labour practices and decent work environments, human rights, society, and product responsibility.

Empirical Review

Studies which examined the effect of the adoption of SMA practices on the firms that use them have come up with conflicting results. For example, Santini (2013) found that only two of sixteen SMA tools outlined by Cadez and Guilding (2008) were connected with firm performance concluding that, there is no strong relationship between SMA tools and financial performance which was measured as net profit, return on equity, financial independence, equity-to-debt ratio and added value per employee. Other studies with findings that do not support the notion that the adoption of SMA adds real value to an organization include Angelakis, Theriou and Floropoulos (2010), Hyvonen (2005) and Mevellec and Lebas (2010). On the other hand several studies have lauded the adoption of SMA techniques as being beneficial in creating organizational value in areas such as gaining and sustaining competitive advantage as well as in improving performance (Roslender & Hart, 2002; Aboramadan & Borgonovi, 2016; Ojua, 2017).

Tung, Baird and Schoch (2011) examined how the adoption of SMA tools influences organizational performance and their findings showed a significant positive relationship between the usage of SMA tools and techniques and performance, in terms of competitive positioning, organizational integrity, performance

capabilities, customer equity and financial results. In Nigeria, Oboh and Ajibolade (2017) examined the relationship between SMA and decision-making in Nigerian banks and observed that the adoption of SMA improves the decision-making quality by banks in Nigeria. Oyewo and Ajibolade's (2019) study which looked at how the usage of SMA techniques such as customer accounting and competitor accounting can create and sustain competitive advantage in manufacturing companies with data from 56 publicly-quoted companies covering a 10-year period (2008-2017) found that, the usage of SMA positively and significantly impacted on the competitive advantage of the firms and competitive advantage has been proven to be a core element of sustainability, lending credence to the assertion that adoption of SMA improves the sustainability of organizations.

Theoretical Framework

Most empirical studies on the issue of SMA have assumed a contingency approach (Chenhall, 2003; Langfield-Smith, 2008). The contingency theory is an organizational theory that advocates that no single best way to manage an organization and to achieve its objectives exists rather, the optimal management approach for each organization is contingent upon several internal and external factors which surround the organization. The contingency theory relies on the concept of uni-finality which, presents that there is a single structural design that best fits a given organizational strategy and which results in the highest performance by the organization (Gerdin & Greve, 2004; Drazin & Van de Ven, 1985). The lack of a consensus of the results of empirical research on the impact of the adoption of SMA limits the generalization of assertions about the benefits of SMA to organizations and, underscores the argument for a contingency approach. This study also leans on the contingency theory because of observed differences in the rate and level of diffusion of management innovations (such as of SMA) across different organizations in different industry sectors and across countries (Ahmad & Zabri, 2015) which, necessitates the need to provide empirical evidence of the value of the applicability of SMA in specifically enhancing the sustainability of banks in Nigeria. The contextualization of the contingency theory to this study implies that to achieve the mandate of organizational sustainability, organizations' management needs to deploy the required techniques and accounting innovations that will enhance economic viability as well as social and environmental performance. Therefore, for this study the following research hypotheses have been formulated:

Ho_1: SMA usage has no significant impact on the economic, environmental and social sustainability of Nigerian banks.

Ho_2: SMA usage has no significant impact on the overall sustainability of Nigerian banks.

3. Methodology

This study adopted a survey research design and data was collected with the aid of a questionnaire. The population for this study comprised of all the 22 commercial banks operating in Nigeria as at the time of this study but, only 14 banks which satisfied the criterion of being in operation between the period 2008 – 2019 emerged as the sample for this study. The sampled banks was decided in the light of the reforms in the banking industry which kicked off in 2008 and on the fact that investigating the issue of sustainability requires that the banks under examination should have sustained their business for a long timeframe. The banks sampled are Access Bank; Ecobank; Fidelity Bank; First Bank of Nigeria; FCMB; Diamond Bank; Guaranty Trust Bank; Union Bank; Unity Bank; Wema Bank; Sterling Bank; Stanbic IBTC; UBA; and Zenith Bank. The target respondents were accountants in the financial control, internal control and internal audit departments of the banks. Ten (10) copies of the questionnaire were randomly administered to this group of respondents in each of the fourteen (14) banks, making a total of one hundred and forty (140) respondents.

Model Specification and Measurement of Variables

The variables of the study are the extent of usage of SMA techniques, economic sustainability, environmental sustainability, social sustainability and Overall sustainability.

To achieve the objectives of the study, four models were specified as follows:

Model 1: $ECO = C_01 + C_1SMA + et1$ Equation 1

Model 2: $ENV = C_02 + C_2SMA + et2$ Equation 2

Model 3: $SOC = C_03 + C_3SMA + et3$ Equation 3

Model 4: $SUS = C_04 + C_4SMA + et4$ Equation 4

Where:
SMA is SMA usage
ECO is Economic Sustainability
ENV is Environment Sustainability
SOC is Social Sustainability
SUS is Overall Sustainability
$C_0$1-4 ere constants for Models 1 to 4
C_{1-4} are regressor coefficients for Model 1 to 4
et 1-4 are stochastic error terms for Models 1 to 4

SMA usage was measured using the 16 innovative management accounting techniques developed by Cadez and Guilding (2008). Statements were constructed to ask respondents on the extent of use of various types of management accounting techniques on a scale of 1 (not at all) to 5 (very great extent) as done in prior studies. Economic, environmental and Social sustainability were measured using the instrument developed by Oyewo and Isa (2017) from the Global Reporting Initiative (GRI) G4 framework for financial institutions. Respondents were asked to rate on a scale of 1 (not at all) to 5 (very great extent) the extent to which their banks engage in sustainable business practices cutting across economic, environmental and social ramifications such as, the consideration of social and environmental risks and opportunities; the economic value generated and distributed by the activities of the firm; financial assistance received from government and given as workforce compensation; investments in community activities and the disclosure and assessment of such investments; and the indirect economic, social and environmental impact of the activities of the firm. The Overall sustainability was obtained by additively combining the scores obtained for economic, environmental and social sustainability.

Validity and Reliability of Research Instrument

To ensure validity, measurements adaped from literature were used to measure variables. An exploratory factor analysis to check the loading of items on variables was done to further confirm validity. The results of the test showed that the significant p-value of 0.000 confirms the factorability of SMA as a variable. The communalities of items measuring all the variables of the study had a high degree of extraction. The least extraction for items measuring SMA usage was .551 (or 55.1%), for economic sustainability it was .630 (or 63.0%), for environmental Sustainability it was .521 (or 52.1%) and for Social Sustainability it was .430 (or 43.0%). The total number of variances explained for all the variables was higher than 60% (SMA=68.005%, economic=68.176%, environmental=60.388% social=66.608%) while all items loaded strongly in component 1, implying that they were validly measured. The significant p value of 0.000 for all the items confirmed their factorability as valid variables. To assess reliability/ internal consistency the Cronbach alpha was used and the result showed the following values; SMA Usage (0.832); Economic Sustainability (0.826); Environmental Sustainability (0.867); and Social Sustainability (0.878). The Cronbach alpha values of all items exceeded the recommended minimum of 0.7 to gauge internal consistency. Data analysis was achieved using the inferential statistical tools of correlation and regression analysis.

4. Results and Discussion

From the total of the 140 copies of questionnaire administered in the fourteen selected banks, 102 copies were retrieved and found useful for analysis. The 102 copies were then processed for analysis, representing a response rate of 72.8%. This proportion is considered adequate to perform statistical analysis for the purpose of the study.

Impact of SMA Usage on Economic Sustainability

Results from the analysis of the impact of SMA usage on economic, environmental and social sustainability are presented in Table 2.

Table 2: Regression Statistics on SMA and Economic, Environmental, Social Sustainability

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	.843	.377		2.235	.028		
Application of SMA	.746	.109	.566	6.859	.000	1.000	1.000
Dependent Variable: Economic Sustainability							
R= 0.566, R^2 = 0.320, Adjusted R^2 = 0.313							
F-value = 47.043 (p-value = 0.000<0.05)							
(Constant)	2.008	.549		3.658	.000		
Application of SMA	.422	.158	.257	2.663	.009	1.000	1.000
Dependent Variable: Environmental Sustainability							
R= 0.257, R^2 = 0.066, Adjusted R^2 = 0.057							
F-value = 7.093 (p-value = 0.009<0.05)							
(Constant)	2.003	.380		5.265	.000		
Application of SMA	.506	.110	.419	4.617	.000	1.000	1.000
Dependent Variable: Social Sustainability							
R= 0.419, R^2 = 0.176, Adjusted R^2 = 0.167							
F-value = 21.320 (p-value = 0.000<0.05)							

Source: Field Survey, 2020

In Table 2 above, the correlation coefficient (R) is between SMA usage and economic sustainability is .556, implying a strong relationship at 55.6%. The coefficient of determination (R square) of .320 implies that 32.0% of the changes in economic sustainability are attributable to SMA usage. The p-value of .000 implies that the Model is statistically significant at 1%. The beta coefficient of the independent variable is positive and significant at 1% (i.e. Unstandardized beta = .746, p = .000). While the VIF coefficient and Collinearity Diagnostics show that there is no Collinearity problem. Overall, the results established that SMA usage has a significant positive impact of economic sustainability, and the nature of the relationship is strong.

Results from the analysis of the impact of SMA usage on environmental sustainability presented in Table 2 above showed a correlation coefficient (R) of .257, implying a weak relationship at 25.7% . The coefficient of determination (R square) of .066 implies that 6.6% of the changes in environmental sustainability are attributable to SMA usage. The p value of .000 implies that the Model is statistically significant at 1%. The beta coefficient of the independent variable is positive and significant at 1% (i.e. Unstandardized beta = .422, p = .000). While the VIF coefficient and Collinearity Diagnostics show that there is no collinearity problem, as the VIF is less than 10.0. Overall, the results in Table 2 established that SMA usage has a significant positive impact of environmental sustainability; however, the strength of the relationship is weak.

Results from the analysis of the impact of SMA usage on social sustainability presented in Table 2 above showed a correlation coefficient (R) of .419, implying a semi-strong form of relationship at 41.9% between SMA usage and social sustainability. The coefficient of determination (R square) of .176 implies that 17.6% of the changes in social sustainability are attributable to SMA usage. The p value of .000 implies that the Model is statistically significant at 1%. The beta coefficient of the independent variable is positive and significant at 1% (i.e. Unstandardized beta = .506, p = .000). While the VIF coefficient and Collinearity Diagnostics show that there is no collinearity problem, as the VIF is less than 10.0. Overall, the results in Table 2 established that SMA usage has a significant positive impact on social sustainability; however, the strength of the relationship is semi-strong.

Impact of SMA Usage on Overall Sustainability

Results from the analysis of the impact of SMA usage on overall sustainability are presented in Table 3.

Table 3: Regression Statistics on SMA and Overall Sustainability

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	1.618	.333		4.859	.000		
Application of SMA	.558	.096	.502	5.811	.000	1.000	1.000
Dependent Variable: Overall Sustainability							
R= 0.502, R^2 = 0.252, Adjusted R^2 = 0.245							
F-value = 33.768 (p-value = 0.000<0.05)							

Source: Field Survey, 2020

In Table 3, the correlation coefficient (R) is .502, implying a strong form of relationship at 50.2% between SMA usage and overall sustainability. The coefficient of determination (R square) of .252 implies that 25.2% of the changes in overall sustainability are attributable to SMA usage. The p value of .000 implies that the Model is statistically significant at 1%. The beta coefficient of the independent variable is positive and significant at 1% (i.e. Unstandardized beta = .558, p = .000). While the VIF coefficient and Collinearity Diagnostics show that there is no collinearity problem, as the VIF is less than 10.0. Overall, the results in Table 3 established that SMA usage has a significant positive impact on overall sustainability, and the strength of the relationship is strong.

Test of Hypotheses

SMA usage has no significant impact on economic sustainability in Nigerian banks

The p value of .000 in Table 2 implies that the Model is statistically significant at 1%. The beta coefficient of the independent variable is positive and significant at 1% (i.e. Unstandardized beta = .746, p = .000). Null hypothesis one is therefore rejected, and it is concluded that SMA usage has a significant impact on economic sustainability in Nigerian banks

SMA usage has no significant impact on environmental sustainability in Nigerian banks

The p value of .009in Table 2 implies that the Model is statistically significant at 1%. The beta coefficient of the independent variable is positive and significant at 1% (i.e. Unstandardized beta = .422, p = .000). Null hypothesis two is therefore rejected, and it is concluded that SMA usage has a significant impact on environmental sustainability in Nigerian banks.

SMA usage has no significant impact on social sustainability in Nigerian banks

The p value of .000 in Table 2 implies that the Model is statistically significant at 1%. The beta coefficient of the independent variable is positive and significant at 1% (i.e. Unstandardized beta = .506, p = .000). Null hypothesis three is therefore rejected, and it is concluded that SMA usage has a significant impact on social sustainability in Nigerian banks.

SMA usage has no significant impact on the overall sustainability of Nigerian banks

The p value of .000 in Table 5 implies that the Model is statistically significant at 1%. The beta coefficient of the independent variable is positive and significant at 1% (i.e. Unstandardized beta = .558, p = .000). Null hypothesis four is therefore rejected, and it is concluded that SMA usage has a significant impact on the overall sustainability of Nigerian banks. The finding that economic sustainability was the most impacted by SMA usage suggests that the need for the adoption of modern management accounting techniques is predominantly borne out of the need to improve economic, business or financial performance of banks. This finding is consistent with the finding by Iredele and Akinlo (2015) that Nigerian commercial entities excessively focus on improving economic/ financial performance, whilst focusing less on environmental and social sustainability.

The observation that environmental sustainability was the least impacted suggest that banks do not necessarily implement innovative management accounting techniques for the purpose of bettering the environment. This is understandable considering the fact that the environmental impact of banking activities is minimal. The result that SMA usage can engender overall sustainability is consistent with observation in literature on the relevance of SMA in contributing to organizational effectiveness (Abdel Al & McLellan, 2013; Ahmad, 2014; Aboramadan & Borgonovi, 2016).

5. Conclusion and Recommendations

The study concludes that the adoption of SMA will positively impact on the economic, environmental and social sustainability of Nigerian banks. This implies that when there are concerted efforts towards the adoption of the

strategic management accounting tools by Nigerian banks, the economic sustainability of the banks would be highly improved. In other words, such banks would be empowered through the superiority of the SMA to make informed business and economic decisions as regards the use of the assets and resources of the banks.

Also if Nigerian banks holistically embrace the usage of SMA techniques, they would be able to identify the environmental consequences of their products and services through its entire lifecycle by evaluating the lifecycle costs of their products, services, sites and projects activities as well as, identify possible ways of mitigating any negative consequences. SMA would also enable the banks to generate, analyse, and assign measures of monetary value to the consequences (damage/benefits) of their activities. With the significant positive impact of SMA usage on social sustainability it can be deduced that the adoption of SMA would enable banks to show genuine concern for social progress that recognises the needs of everyone in the society. By so doing, banks can take cognisance of their employees' skills and abilities as well as the institutions, relationships, and norms that determine the quantity and quality of society's social interactions. It is posited in this study that the adoption of SMA by Nigerian banks would be a means to meaningfully achieve sustainability in the banking sector in Nigeria.

Recommendations

Considering that SMA usage has a positive and significant impact on sustainability, organisations are implored to improve on the level of implementation of SMA as well as on the disclosure of sustainability initiatives undertaken. It has been worryingly observed in literature that Nigerian firms pay lip-service to the issue of sustainability as noted that annual reports do not present a comprehensive view of the sustainable development activities embarked upon by firms. Notwithstanding that sustainability reporting is voluntary in most countries; it is recommended that the regulatory authorities in Nigeria should encourage non-financial reporting by publicly traded firms including banks so as to enhance the ability of both existing and prospective investors to evaluate the banks' capability to create profits in the future. Regulatory authorities can also adopt or prescribe a framework for firm disclosures in annual reports on sustainability initiatives undertaken by them. A framework will help prevent a situation where disclosed information cannot be relied upon due to diversity in the quantum, content and manner of disclosure.

It is also recommended that banks' management teams key into the usefulness of SMA as an internal reporting tool that aids the evaluation of performances both quantitatively and qualitatively, and how SMA enables the assessment of the economic, environmental, and social impact of activities so as to enable banks focus on measures that fosters sustainability. Due to the fact that the level of adequacy and reliability of information by listed companies in developing countries on the issue of sustainability is lagging behind in comparison to developed countries, it is recommended that professional and educational institutions in Nigeria emphasize sustainability themes and concepts in their curricular to create greater awareness on the applicability of SMA. This will also encourage more research on the topic and help to address the challenge of paucity of data and literature on SMA in developing countries.

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