

JOURNAL OF MANAGEMENT AND CORPORATE SUSTAINABILITY
DEPARTMENT OF MANAGEMENT, FACULTY OF MANAGEMENT SCIENCES,
IMO STATE UNIVERSITY, OWERRI.
VOL. 1. NO.1 MAY 2023 / ISSN: 2616-1292

SUSTAINABLE BUSINESS PRACTICES AND OPERATIONAL SUSTAINABILITY OF
MANUFACTURING FIRMS IN SOUTH- WEST, NIGERIA

OBIALOR, DONATUS CHUKWUEMEKA PhD

Department of Business Management,
Faculty of Management Sciences,
University of Uyo,
Nigeria.

UCHEHARA, CHIZUBE IFEYINWA PhD

Registry Unit,
Imo State University, Owerri.
Imo State.

&

OKAH VINCENT PhD

Department of Management,
Faculty of Management Sciences,
Imo State University Owerri,
Imo State.

Abstract

Creating the right policy environment that will increase the level of care for businesses and reduce organization's negative impact on the environment through the use of appropriate technology that will benefit organizations and its recipients or customers as well is the goal of a sustainable business. The study was conducted to examine the effect of the relationship between sustainable business practices and operational sustainability of manufacturing firms in South – West, Nigeria. The study adopted a cross-sectional research design and used the Taro Yamme formula to determine a sample size of 310 samples from a population of 1420 employees. Data generated from respondent responses were analyzed using regression analyses with the aid of Statistical Packages for Social Sciences (SPSS) version 20 at 5% level of significance. Result shows that there is a significant positive relationship between sustainable business practices and operational sustainability of manufacturing firms in South-West, Nigeria. The study recommends that manufacturing firms and other business organizations should embrace and manage appropriately these sustainable business factors so that business efficiency and effectiveness that leads to sustainability would be achieved. The study conclude that Sustainable business practices are important because eco-innovations will be the future competitive advantage of most countries and businesses, thus sustainable business practices have significant positive relationship with operational sustainability of manufacturing firms in South - West, Nigeria.

Keywords: Business, Sustainability, Green, Environment, Firm

Introduction

Sustainable businesses or green businesses are an organization that participates in environmentally friendly or green activities to ensure that processes, products, and manufacturing activities adequately address current environmental concerns while maintaining a profit (Rennie 2008). Green is the affirmation of life which indicates growth, fruitfulness and spiritual rejuvenation and it is an efficient tool in operating personal and business life by eliminating wasteful spending based on habits that no longer serve our purpose (Singh & Singh, 2012). Green business is a practice which refers to all the related projects with a specific aim of helping businesses reduce the environmental impacts of their business operations as well as helping in saving resources efficiently.

Green business practices according to Klimova & Zitek (2011) is important because eco-innovations will be the future competitive advantage of most countries and businesses. Klimova & Zitek (2011) further argue that if businesses want to actually be successful in the international market, they cannot rely only on having low cost as its competitive advantage; but rather on new and innovative environmental technology services and processes which will be a more important source of competitive advantage. Hence, the long term sustainability of our economic system does not depend only on quantitative growth but also on the ecological aspects of growth and sustainable development (Klimova & Zitek, 2011).

Peng & Lin, (2008) defined green management as practices that produce environment as the organization-wide process of applying innovation to achieve sustainability, waste reduction, social responsibility, and a competitive advantage via continuous learning and development and strategies that are fully integrated with the goals and strategies of the organization. Green business can be defined as business practices which are evaluated to be environmentally friendly. These practices might include the use of organic and natural products to build its facilities, tighter protections against emissions, environmentally responsible sourcing of supplies and designing organizations and processes in order to promote efficient and effective use of resources.

However green business is to adopt principles, policies and practices that improve the quality of life for customers, employees and protect resource usage. (Green America, 2011). De Simone & Popoff (2000) maintain that using renewable energy resources, enhancing material recyclability, reducing toxic dispersion are all eco-efficient practices while doing green business. Managing a green business can be considered as a cost unit, as well as an opportunity for saving money, thus green business practices can be integrated to daily operations at a different level of environmental consciousness (Obialor, 2020a). Furthermore, organizations can develop approaches on the leading edge of current environmental practice and thinking as a pioneer (Schroeder & Robinson, 2010).

Going green means to pursue knowledge and practices that can lead to more environmentally friendly and ecologically responsible decisions and lifestyles, which can help protect the environment and sustain its natural resources for current and future generations. However, Wioletta & Iga (2015) posit that in large organizations, green management practice is a concept, which mainly refers to the environmental aspects. Sustainable business practices are about creating the right policy environment that will increase the level of care for the environment and reduce organization's negative impact on the environment, through the use of appropriate technology, thoughtful and workable strategy, and focus on innovation sometime called "Green", which will benefit organization itself and its recipient or customers as well.

Sustainable business practices factors include; customer loyalty, smart adoption of technology, commitment to employee training, leadership style, social responsibility, flexibility as an important value, customer centricity, insightful talent management, focus on innovation, and thoughtful and workable strategy.

Statement of the problem

Green management practice is a concept which mainly refers to the environmental aspects that creates the right policy environment that will in turn increase the level of care for the environment and thus reduce organization's negative impact on the environment through the use of appropriate technology. But today, businesses are not really thinking adequately in this direction, yet organizations claim that the main targets of green management practice are mainly on the ways of conducting business activities by the firms, which reflects no negative impacts on the local and global environments. The study however is faced with the challenge of examining the effect of the relationship between sustainable business practices and operational sustainability of manufacturing firms in South- West, Nigeria.

Objectives of the study

The objective of the study is to examine the effect of the relationship between sustainable business practices and operational sustainability of Manufacturing firms in South – West, Nigeria. Specifically, the study is to:

- i. assess the effect of thoughtful and workable strategies on operational sustainability of manufacturing firms in South- West, Nigeria.
- ii. determine the influence of customer centricity on operational sustainability of manufacturing firms in South- West, Nigeria.

Research Question

- i. What is the effect of thoughtful and workable strategies on operational sustainability of manufacturing firms in South- West, Nigeria?
- ii. To what extent has customer centricity influence operational sustainability of manufacturing firms in South- West, Nigeria?

Research Hypotheses

- i. Thoughtful and workable strategies have no significant effect on operational sustainability of manufacturing firms in South- West, Nigeria.
- ii. Customer centricity has no significant influence on operational sustainability of manufacturing firms in South- West, Nigeria.

Review of Literature

Conceptual Model

Sustainable businesses adopt green management principles, policies, and practices that improves the quality of life for their employees, the communities in which they operate and the environment (Obialor, 2020_b). Most green businesses begin with a desire to resolve the impacts of climate change and other environmental problems, because greening of business is a part of a long-term strategy of becoming sustainable. Businesses however must follow a green approach and green standards in their operational management and in the output of products. A sustainable business or a green business is an enterprise that has minimal negative impact, or

potentially a positive effect, on the global or local environment, community, society, or economy. It is a business that strives to meet the triple bottom line (The Guardian 2019). Often, sustainable business has progressive environmental and human rights policies.

According to Cooney (2009) business in general is described as green or sustainable if it matches the following four criteria: if it incorporates principles of sustainability into each of its business decisions, if it supplies environmentally friendly products or services that replace demand for non-green products and / or services, if it is greener than traditional competition, and if it has made an enduring commitment to environmental principles in its business operations.

Anderson (2006); Rennie (2008) further maintain that sustainable business is any organization that participates in environmentally friendly or green activities to ensure that all processes, products, and manufacturing activities adequately address current environmental concerns while maintaining a profit. In other words, it is a business that meets the needs of the present (world) without compromising the ability of future generations to meet their own needs. Hence, it is the process of assessing how to design products that will take advantage of the current environmental situation and how well a company's products perform with renewable resources (Obialor, 2020c). Green business has been seen as a possible mediator of economic-environmental relations, and if proliferated, would serve to diversify our economy, even if it has a negligible effect at lowering atmospheric CO₂ level (Caprotti, 2012).

Business operational sustainability is a method of evaluating whether a business can maintain existing practices without placing future resources at risk (Kimberlee, 2020). Reger's conceptual model according to Roome, (1994) categorizes corporate strategies into four categories; indifference, offensive, defensive and innovative. Indifferent companies are those that have low environmental risk and even less environmentally-based opportunities for growth. Offensive businesses are those that have very considerable potential for exploiting environmentally-related market opportunities, and include businesses that manufacture pollution control equipment etc. Businesses adopting defensive strategy are companies like the chemical companies, which have high environmental issues, or their very survival could be at stake. The innovators are those that have high environmental risk and also a lot of environmentally-based opportunities for growth.

Welford's (1994) conceptual model categorization of the SMEs sector into four main groups is slightly different. The first group is referred to, as the "ostriches". Companies that fall in this category not only assume that concern for the environment is a passing place and that their impact on the environment is negligible, but also assume that their competitors feel the same and hence do nothing to conserve the environment. Then there are the "laggards", businesses that are aware of the environmental challenges facing them, but are unable to combat those challenges because of cost constraints, lack of trained manpower, lack of knowledge etc. The third group consists of the "thinkers", companies that know that something should be done, but are still waiting for others to show the way forward. The "doers" are the ones that have proceeded to put their thoughts into action.

Topfer, Bostrum & Poystic, (1992) also divides businesses into four categories, namely; resistant, passive, reactive and innovative. Businesses that fall in the first category are the ones that view concern for the environment as a hindrance to their growth and do their level best to hinder the passing of environmental laws. Passive companies are like Steger's indifferent

companies, who ignore the issue altogether. Roome's framework argues that actions taken by reactive companies have been triggered off by legislation, whereas Topfer sees it as a defensive move to catch up with the competitors. The last category, the innovators are the same as Steger's innovators and Simpson's enthusiasts. Similarly, with Roome's strategic option model (1992), there are five environmental strategies for companies, namely; non-compliance, compliance, compliance-plus, commercial and environmental excellence, and leading edge.

These are referred to as; stable, reactive, anticipatory, entrepreneurial and creative in Ansoff's strategic posture analysis (Ketola, 1993). The first three strategies are related to compliance with the environmental standards, as the name suggests. Compliance-up implies looking beyond the existing standards and norms. It involves integration of the environmental management techniques with the entire management system of the company. Excellence and leading-edge approaches view environmental management as good management, recognize the opportunities that have risen as a result of the environmental revolution and strive towards state-of-the-art environmental management. Hence, it is through the adoption of excellence and leading-edge strategies that a company can gain competitive advantage. Roome's model argues that environmental pressures like legislation, constraints within the firm, and the ability of managers to bring about an organizational change in order to incorporate environmental issues, are equally important.

Theoretical Review

Ecological Modernization Theory

Max Weber (1864-1920) in Hajer (1995); Mol, (1995), according to the theory, it is possible to promote economic growth by giving higher priority to the environment. It is no longer necessary to trade off economic growth for environmental quality (Tiller and Young, 2009 cited in Obialor, 2021). Ecological modernization theorist believes that "the environmental problems facing the world today, act as a driving force for future industrial activity and economic development.

The theory calls for the progressive modernization of business. It suggests that entrepreneurial action is the best solution to our environmental problems because the new generation of ecopreneur is seeking to combine environmental awareness and conventional entrepreneurial activity to achieve entrepreneurial success (Anderson, 1998). The justification for using this theorist believes that the environmental problems facing the world today, act as a driving force for future industrial activity and economic development. The theory further believes that it is possible to promote economic growth by giving higher priority to the environment.

Methodology

The study adopted a cross-sectional research design. The Taro Yammeh formula was used to determine a sample size of 310 samples from a population of 1420 employees of Cadbury PLC, Lateef Jakande way, Agidingbi, Ikeja Lagos State, South-West, Nigeria. The reliability of the test instrument was determined through pilot study. Data generated from respondent responses were analyzed through regression analyses using statistical packages for social sciences (SPSS) version 20 at 5% level of significance.

Description

No of Respondents

		Yes	%	No	%
1	Does sustainable businesses adopt principles, policies and practices that improve the quality of life for customers, employees and protect resource usage?	256	83	54	17
2	Does Going green pursue knowledge and practices that can lead to more environmentally friendly and ecologically responsible decisions and lifestyles?	247	80	63	20
3	Does Sustainable businesses adequately address current environmental concerns while maintaining a profits?	240	77	70	23
4	Can organizations develop approaches on the leading edge of current environmental practice and thinking as a pioneer?	254	82	56	18
5	Does business Management of medium scale industries positively affect customer satisfaction	256	83	54	17
6	Does sustainable business practices refer to all the related projects with a specific aim of helping businesses reduce the environmental impacts of their business operations as well as helping in saving resources efficiently?	246	79	64	21

Source: Field Data 2023

In question 1, the result showed that 256 responses representing 83% of the total respondents for the study assert that sustainable businesses positively affect operational sustainability of manufacturing firms in South West, Nigeria, while 54 responses representing 17% of the total respondents for the study said no that sustainable businesses do not significantly affect operational sustainability of manufacturing firms in South- West, Nigeria.

Question 2 shows that 247 responses representing 80% of the total respondents for the study said yes that going green significantly affect operational sustainability of manufacturing firms in South West, Nigeria, while 63 responses representing 20% of the total respondents for the study said no, that going green does not significantly affect operational sustainability of manufacturing firms in South West, Nigeria. Therefore, it can be deduced that any percentage decline in sustainability is a result of poor environmentally friendly and ecologically responsible decisions and lifestyles.

In question 3, it is clear that 240 responses representing 77% the total respondents from the study said yes that sustainable business practices positively influence operational sustainability of manufacturing firms in South-West, Nigeria, while 70 responses representing 23% of the total respondents said no that sustainable business practices relationship does not significantly affect operational sustainability of manufacturing firms in South West, Nigeria.

Therefore, it can be affirmed that sustainable business practices relationship significantly affects operational sustainability of manufacturing firms in South West, Nigeria.

In question 4, the result shows that 245 responses representing 82% of the total respondents for the study assert that organizations develop approaches that positively affect operational sustainability of manufacturing firms in South West, Nigeria, while 56 responses representing only 18% of the total respondents for the study said no that organizations do not significantly develop approaches that affect operational sustainability of manufacturing firms in South West, Nigeria. From the findings, it can be affirmed that organizations develop approaches that positively affect operational sustainability of manufacturing firms in South West, Nigeria.

In question 5, findings show that 256 responses representing 83% of the total respondents for the study said that business management of manufacturing firms positively affect operational sustainability. Hence business management of manufacturing firms positively affects operational sustainability of manufacturing firms in South West, Nigeria.

Finally, in question 6, results showed that 246 responses representing 79% of the total respondents for the study said yes that sustainable business practices positively affect operational sustainability of manufacturing firms in South West, Nigeria, while 64 responses representing only 21% of the total respondents for the study said no that sustainable business practices have no significant affect operational sustainability of manufacturing firms in South West, Nigeria.

Test of Hypotheses

In testing hypotheses, question 1 was used to test hypothesis. 1, while question 4, was used to test hypothesis 2.

Decision rule:

H_0 : $> t_{cal}$, 0.05 reject

H_1 : $< t_{cal}$, 0.05 accept

Hypothesis.1,

H_{01} : Thoughtful and workable strategies have no significant effect on operational sustainability of manufacturing firms in South- West, Nigeria.

The first objective of this study is to assess the effect of thoughtful and workable strategies on operational sustainability of manufacturing firms in South- West, Nigeria. Therefore, the empirical data associated with this regression results are as stated below:

Table 1

$Y = f(X)$ model 1

$Y = b_0 + b_1 X_1 + U_1$

Regression result of the relationship between critical factors and supply chain operational performance.

Dependent Variable: Y

Method : Ordinary Least Square (OLS)

Sample : 1-10

No of observations : 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	12.081	5.447	2.218	0.057
X	2.504	0.803	3.117	0.014

Source: SPSS, 18

$r^2 = 0.548$

$r = 0.741$

Durbin Watson = 2.96

The coefficient of the constant term is 12.08. The associated sign is positive, implying at zero sustainability of the independent variable, operational sustainability (Y) will be influenced by 12% approximately. The regression coefficient of thoughtful and workable strategies (X) carries positive sign and that t-value (3.117) is statistically significant at 5%. The significance is ascertained as the 00.5 (5% level of significance) is greater than p-value of the regression coefficient of thoughtful and workable strategies (X = 0.014). The computed coefficient of determination ($r^2 = 0.548$) shows that 54.8% of the total variation in operational sustainability (Y) is accounted for by the independent variable, (thoughtful and workable strategies: X) and the influence of other factors that are not included to the regression function. However, the computed correlation coefficient is 0.741, implying that there is a strong positive relationship between thoughtful and workable strategies (X) and operational sustainability (Y).

The volume of Durbin Watson (DW) is 2.96, using 5% level of significance, and $K^1 = 1$ (one) and $N = 10$ degree of freedom, the tabulated lower (DL) and upper limits of Durbin Watson statistics (2.96) is greater than upper limit (1.320), there is no evidence of Auto Correlation in the Model.

Hypothesis 2.

Ho₂: Customer centricity has no significant influence on operational sustainability of manufacturing firms in South- West, Nigeria. Regression result of Customer centricity influence on operational sustainability of manufacturing firms in South- West, Nigeria. The second objective of the study is to determine the influence of customer centricity on operational sustainability of manufacturing firms in South- West, Nigeria.

Table.2

$Y = f(x)$ model. 2

$Y = b_0 + b_1x + U_1$

Dependent Variable: Y

Method : Ordinary Least Square (OLS)

Sample : 1-10

No of observations : 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	7.188	4.008	1.793	0.111
X	3.252	0.595	5.467	0.001

Source: SPSS, 18

$r^2 = 0.789$

$r = 0.888$

Durbin Watson = 1.65

The coefficient of the constant term is 7.188. The associated sign is positive, implying at zero influence of the independent variable, operational sustainability (Y) will influence an increase by 7% approximately. The regression coefficient of customer centricity (X) carries a positive sign and the t- value (5.467) is statistically significant at 5%. The significance ascertained as the 0.05 (5% level of significance) is greater than p- value of the regression coefficient of customer centricity (X) (0.001), the computed coefficient of determination (r^2 0.789) shows that 78.9% of the total variation in operational sustainability (Y) is accounted for, by the independent variable (customer centricity) while 21.1% of the total variation in 'Y' is attributed to the influence of other factors that are not included in the regression function.

However, the computed correlation coefficient ^(R) is 0.888, implying that there is a strong positive relationship between customer centricity (X) and operational sustainability (Y). The value of Durbin Watson (DW) is 1.65. Using 5% level of significance and $K^1 = 1$ and $N = 10$ degree of freedom, the tabulated lower (dL) and upper limits of Durbin Watson statistics (1.65) is greater than the upper limit (1.320), there is no evidence of Auto Correlation in the Model.

Discussion

It is observed that the t- calculated value of regression coefficient of sustainable business practices (thoughtful and workable strategies) (X) in the first model is 3.117 while the t – tabulated value 2.306. Since the t –calculated (3.117} is greater than the t- tabulated value (2.306), the null hypothesis is rejected and the study concludes that sustainable business practices (thoughtful and workable strategies) significantly affects operational sustainability of manufacturing firms in South - West, Nigeria.

Using a two tail test, the t- calculated value of the regression coefficient of sustainable business practices (customer centricity) (X) in the second model (2.306), the null hypothesis is rejected and the study concludes that sustainable business practices (customer centricity) significantly influence operational sustainability of manufacturing firms in South - West, Nigeria.

Recommendations

- i. Manufacturing firms and other business organizations should embrace and manage appropriately these sustainable factors so that business efficiency and effectiveness that lead to sustainability would be achieved.
- ii. Sustainable businesses should adopt principles, policies and practices that improve the quality of life for customers, employees and protect resource usage.

Conclusion

Green business is a practice which refers to all the related projects with a specific aim of helping businesses reduces the environmental impacts of their business operations as well as helping in saving resources efficiently. Sustainable business practices are important because eco-innovations will be the future competitive advantage of most countries and businesses. Results of the first hypothesis tested showed that thoughtful and workable strategies variable of the independent variable significantly affect operational sustainability of manufacturing firms in South - West, Nigeria. The result of the second research question and hypothesis also revealed that customer centricity variable significantly influence operational sustainability of manufacturing firms in South - West, Nigeria. Thus the study conclude that sustainable business

practices have significantly relationship with operational sustainability of manufacturing firms in South - West, Nigeria.

References

- Anderson. D. R (2006). The Critical Importance of Sustainability Risk Management: Risk Management. 53, (4)
- Anderson, A. R (1998). Cultivating the Garden of Eden: Environmental Entrepreneurship. Journal of Organizational Change Management, 11(2), 135-144.
- Bostrum. T. & Poystic. E (1992). Environmental Strategy in the Enterprise. Helsinki: Helsinki School of Economics.
- Caprotti, F (2012). Environment, Business and the Firm” Geography Compass, 6, 163-174.
- Cooney, S (2009). “Build A Green Small Business Profitable Ways to Become an Ecopreneur”
- Greenamerica (2011) Green Business. Available at [http://www. greenamerica. Org / green business /whatis.cfm](http://www.greenamerica.Org / green business /whatis.cfm), (02.09.2011)
- Hajer, M (1995). The Politics of Environmental Discourse: Ecological Modernization and the Policy Process. Oxford, United Kingdom: Oxford University Press
- Ketola, T (1993). The Seven Sisters: Snow Whites, Dwarfs or Evil Queens? A Comparison of the Official Environmental Policies of the Largest Oil Corporations in the World. Business Strategy and the Environment, 2, (3),22-33
- Kimberlee, L (2020). Business Definition of Operational Sustainability. Available at <https://smallbusiness.chron.com-25509.html>
- Klimova, V & Zitek, V (2011). Ecoinnovation as a Result of Companies Innovations Activities. Retrieved from <http://ebookbrowse.com>
- Mol, A. P. J (1995). The Refinement of Production Ecological Modernization Theory and the Chemical Industry Utrecht, Netherlands Van Arkel.
- Obialor, D. C (2020a). Talent Management and Entrepreneurial Sustainability in Organizations. International Journal of Innovative Research and Development, Vol.9, Issue.8. ISSN 2278-0211
- Obialor, D. C (2020b). Corporate Social Responsibility and Global Businesses. Journal of Economics and Allied Research (JEAR), Vol.4, Issue.3, pp-167-176: ISSN;2536-7447.
- Obialor, D. C (2021). Repositioning Technology Education in Nigeria through Entrepreneurial Skill Acquisition (A Study of Selected Tertiary Institutions in South – East Nigeria). International Journal of Interdisciplinary Business Strategy (IJIBS) Vol. 1, No. 1 Feb 2021.
- Rennie. E (2008). Growing Green, Boosting the Bottom Line with Sustainable Business Practices. APICS Magazine. 18, (2).
- Roome, N (1992) Developing Environmental Management Strategies. Business Strategy and The Environment, 1, (1), 11-24
- Roome, N (1994). Business Strategy, R & D Management and Environmental Imperatives. R &

D Management, 24, 65-82.

Schroeder, D. M, & Robinson, A. G (2010) Green is Free: Creating Sustainable Competitive Advantage through Green Excellence, *Organizational Dynamics*, 39, pp-349-350.

Singh, H & Singh, B. P (2012). An Effective and Resourceful Contribution of Green Banking towards Sustainability. *International Journal of Advances in Engineering Science and Technology*, 1, (2), 41-45.

The Guardian (2019). Green Capitalism Sometimes Also Referring to Sustainable Businesses. Available at <https://www.theguardian.com/world/2019/nov/24/b>

Welford. R (1994). *Cases in Environmental Management and Business Strategy*. London :Rtman publishing.

Weng, Y & Lin, S (2008). Local Responsiveness Pressure, Subsidiary Resources, Green Management Adoption, and Subsidiaries' Performance: Evidence from Taiwanese Manufacturers. *Journal of Business Ethics*, 79, (1/2), 199-212

Wioletta, S & Iga, K (2015). Green Management in Companies' Policies and Activities. The 2015 WEI International Academic Conference Proceedings, Vienna, Austria.