Covenant Journal of Business & Social Sciences (CJBSS) Vol. 13. No.2, December 2022

ISSN: p. 2006- 0300¯ e. 2334-5708 DOI: XXX

An Open Access Journal Available Online

SUSTAINABLE PRACTICES IN THE MANUFACTURING INDUSTRY: HOW CORPORATE ENVIRONMENTAL RESPONSIBILITY AFFECTS FIRMS COMPETITIVENESS

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Received: 10.9.2022 **Accepted: 12.12.2022**

Date of Publication: December 2022

ABSTRACT

The environmental aspect of CSR has been debated over the past few decades as stakeholders increasingly require organizations to become more environmentally aware and socially responsible. The environmental aspects of sustainable practices have increasingly become a major issue in the manufacturing sector. Hence, the objective of this study is to assess how environmental standards are directly related to competitiveness indicators. The study used a quantitative research design using primary data from a survey. The study population comprised eight (8) listed manufacturers of consumer goods products in South-west Nigeria. Thus, the total sample size for the study is 410. Primary data gathered from certified consumer goods manufacturing firms in Southwest Nigeria was evaluated using structural equation modelling, specifically partial least squares. The research findings established a significant direct and strong relationship between environmental standards and the competitiveness of consumer goods manufacturing firms in Southwest Nigeria. The study found that the selected manufacturing firms support climate change legislation to gain power over their competitors. The selected firms have taken initiatives to align sustainability with economic goals for competitiveness. Managers and other people at the top play a key role in decision-making and implementing the firm's sustainability practices. This study recommends that the need for manufacturing sector continue to behave fairly and responsibly and contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and society at large

Keywords: Competitiveness, Environmental standards, Social responsibility, Sustainability

1. Introduction

The social change that has occurred in the global environment has increased awareness of the need for a better system both environmentally and socially, leading organisations to concentrate on the presentation of the sustainability report that is focused on achieving sustainable development goals, which is the genuine passport needed to join today's business world. Goal 3 of good health and well-being, goal 8 of decent work and economic growth, and goal 13 of climate action are just a few of the goals that can be met through encouraging corporate environmental responsibility (Agudelo, Jóhannsdóttir & Davídsdóttir, 2019; Akanfe, Michael & Bose; 2017).

The term corporate environmental responsibility clearly reflects this vital interaction between businesses and the environment (Liang & Renneboog, 2017). The economic, legal, ethical, and social expectations of society that push firms to embrace environmental standard measures are referred to as corporate environmental responsibility (CER) (Shah & Khan, 2019). CER is also defined as a company's ongoing commitment, regardless of its size or industry, to act ethically and contribute to economic development, and it has been declared a fundamental aspect of governance (Wisdom, Lawrence, Akindele, & Muideen, 2018).

Customers want management to consider the interests of other significant stakeholders in addition to shareholders' interests and for companies to strike a balance between societal well-being and shareholder expectations (Caruana, Vella, Konietzny, & Chircop, 2018). Since the concept of corporate social responsibility was developed, numerous studies have indicated that CER initiatives have a beneficial impact on customers' attitudes and can improve their buying behaviour, hence enhancing the firm's competitiveness and long-term sustainability (Adeniji, Osibanjo & Abiodun, 2015; Jaiswal & Singh, 2018).

On the other hand, organisations must strike a balance between profit maximisation and social responsibility to achieve corporate objectives while maintaining an ethical and transparent relationship with their stakeholders. The manufacturing industry in Nigeria began in 1955 and has since been accompanied by environmental and social challenges as a result of improper disposal of industrial wastes, air, water, and land pollution, deforestation, and decreased land productivity, as well as the production of carbon dioxide, nitrogen, and sulphur that can harm man and the environment (Muhammad, 2019). Environmental degradation is the result of the harm it causes to the environment, as evidenced by the current level of global warming, which poses a risk to

Nigeria's long-term developmental prospects (Adekola, Fischbacher-Smith, Fischbacher-Smith & Adekola, 2017; Alvarado & Toledo, 2017). The government's and manufacturing companies' apparent insensitivity to these issues has sparked a surge of unrest and agitation within their host communities, lowering their ability to be competitive and achieve long-term sustainability.

Competitiveness is achieved when a company implements a value that no other present or potential competitors are applying at the same time, and these other companies are unable to reproduce. Competitiveness is influenced by elements such as target market size, resource availability, customer retention, cost-effectiveness, technological innovation, employee loyalty, public trust, company image, market share, and restriction on the power of the competitor (Crookell, 2018; Lafuente, Leiva, Moreno-Gómez & Szerb, 2020; Nwosu, 2017; Oluyole, Agbeniyi & Ayegbonyin, 2017).

Manufacturing industry expansion has historically been a major component in the successful transformation of most economies that have seen persistent increases in per capita income. The relevance of the manufacturing sector has made many countries give it more attention, owing to its enormous potential for contributing significantly to national gross domestic product, creating jobs, stimulating innovation, raising living standards, and acting as a motivation for swift industrialisation, among other things (Salazar-Xirinachs, Nübler, and Kozul-Wright, 2014). Despite the sector's importance to national growth, manufacturing firms in Nigeria and most African countries continue to lag in terms of survival, competitive performance, and sustainability. For example, whereas the manufacturing sector has regularly contributed significantly to other countries' GDPs, Nigeria has yet to do so despite being Africa's largest economy.

To further bolster the poor performance of Nigerian manufacturing sectors, the World Bank National Accounts Data (2017) study found that manufacturing industries contributed only 9% of Nigeria's GDP in 2016, far behind the contributions of the manufacturing sector in other African countries. As a result, Nigerian manufacturing companies must raise the bar in terms of survival and competitiveness. More importantly, according to global estimates, 95 percent of start-up firms, including manufacturing firms, collapse within five years of their establishment due to a lack of critical infrastructural facilities and human capital factors, manifested in many firms in the form of low corporate environmental responsibility perceptions among relevant stakeholders (Nguyen, Long & Nguyen, 2019). It is worth noting that developed economies have recognised the

importance of corporate environmental responsibility in contributing to competitive performance and sustainability (Uchehara, 2019; Brin, Nehme & Polani, 2020). Based on this background, this study looked at the function of corporate environmental responsibility in achieving competitiveness and adopting sustainable practices in the manufacturing industry.

2. Literature Review

2.1 Corporate Environmental Responsibility (CER)

Many scholars and researchers have approached the notion of corporate environmental responsibility from various angles. The phrase "corporate environmental responsibility" (CER) was coined in the 1950s and received a lot of attention in management studies in the 1970s. Initially, the notion was primarily related to economic issues, i.e., the organization's responsibility to maximize shareholder profit. The stakeholder theory asserts that the primary goal of every firm is to maximize value for its stakeholders (Antonelli, D'Alessio, & Cuomo, 2017; Nyahas, Ntayi, Kamukama & Munene, 2018).

Over the last decade, the field of corporate social responsibility has exploded. Many firms are now taking a more active role in contributing to society than they were previously. Corporate social responsibility (CSR) issues are now being integrated into all business operations, and an increasing number of firms worldwide are making explicit commitments to CER in their visions, missions, and value statements (Motilewa & Worlu, 2015). In addition to profit maximization, CER reports typically include the company's responsibilities to a wide range of stakeholders, such as employees, customers, the community, and the environment (Barakat, Isabella, Boaventura, & Mazzon, 2016).

Ljubojevic, Ljubojevic and Maksimovic (2012) advocated that CER benefits include increased engagement and retention, improved community relationships, improved reputation and brand image, competitiveness, more robust financial performance and profitability, and increased access to capital. In today's chaotic global economy, CER is one of the most important ways to maintain sustainable performance. The modern period is experiencing a shift from profit maximization to social responsibility, prompting most corporate executives to go beyond the basic potential of profit to consider the impact of organizational operations on the stakeholders of an organization (Oyerinde, Olatunji & Adewale, 2018). The concept of CER has gained traction in the business sector as its importance has grown over time. CER is based on the understanding that no firm,

including the manufacturing industry, exists in a social, environmental, or cultural vacuum (Ablo, 2020).

According to William (2017), the focus on corporate environmental responsibility is shifting away from compliance with rules and regulations and toward performance-oriented company initiatives to boost competitiveness. Indeed, corporate environmental responsibility is crucial to company performance and sustainability. As a result, embracing good corporate environmental responsibility can be viewed as a sign of high performance, competitiveness and sustainability (Barney, 2017; Ogbari, Dayo, & Ibidunni, 2018).

2.2 Firms Competitiveness

In recent years, the concept of competitiveness has been a hot topic in the field of competitive strategies, and there has been much disagreement about it. Defining competition with accuracy, on the other hand, is a difficult task. Competitiveness has been defined as excessive returns on the one hand and capital market performance and expectations on the other. However, in the context of competitive strategy and value creation, the most common definition of competitiveness is whatever leads revenues to exceed expenses (Hakkak & Ghodsi, 2015).

Competitiveness is a critical issue in today's dynamic corporate climate (Nyahas, Ntayi, Kamukama & Munene, 2018). A variety of perspectives on the factors that influence competitiveness have been suggested. According to Porter (1990), the attractiveness of an industry and the firm's relative position within it impact a corporation's profitability. This idea holds that strategy leads an organisation's behaviours to differ from those of its competitors, and critical competencies promote distinctiveness and diversity adoption, resulting in competitiveness for the business.

The primary purpose of an organisation's competitiveness strategy, based on its resources and capabilities, is to obtain competitiveness and establish a distinct position in the commercial market (Uchehara, 2019; Brin, Nehme & Polani, 2020). The key to obtaining competitiveness is long-term competitiveness, which is based on identifying and perceiving client wants, focusing on the customer, and improving the process from the customer's point of view. It has also been argued that competitiveness capitalises on organisational competencies that are valuable to customers and difficult to replicate and imitate. When a company's profit rate exceeds the industry average, it is

termed competitive, and when the high-profit rate is maintained for several years, it is said to be sustainable competitiveness.

2.3 Sustainability

Sustainability examines the impact of current actions on the future (Crowther and Aras, 2008). It is primarily concerned with resource scarcity, particularly non-renewable resources such as coal, iron, and oil (Uchehara, 2019; Brin, Nehme & Polani, 2020). As a result, sustainability in CER is concerned with the effective management of the organization's resources utilized to ensure that the resources are regenerated quicker than depleted (Rendtorff, 2019; Purvis, Mao & Robinson, 2019). For years, firms have taken their social responsibilities seriously, frequently under the banner of corporate sustainability. The EU has created a corporate sustainability framework that specifies a progressive set of economic, social, and environmental goals that businesses should strive for. For example, Towers Perrin (2009) has created a framework for evaluating employee perspectives on sustainable business practices.

3. Methodology

The study population comprises all the Nigerian Stock Exchange (NSE) listed manufacturers of consumer goods products in South-west Nigeria. The choice of manufacturing firms based in South-west Nigeria (with most of them located in Lagos) was justified by MAN (2018) Report that affirms that most of the Nigerian manufacturing firms are based in Lagos, which is the commercial nerve centre of Nigeria and Ogun State.

The manufacturers of consumer goods products are made up of the Autoparts (A), Food Product (FP), Breweries (B), Household Durables (HD), and the Personal and Household Products (PHP) subsectors targeted. The motivation for choosing the Food Product (FP) selected firms is because of the displayed resilience in the face of competition and the fact that they are not abetted by any parent company abroad. The focus on consumer (i.e. food products) goods is because of the interest of the Nigerian government and the link of farmers and other agricultural producers with consumers in this sector. In addition, the attention on this sector is to assess how the firms have tapped the large product quality in the sector as well as how well they have utilized CER to gain competitive advantage and sustainability.

This research made use of the quantitative research method. The quantitative survey research design was utilized in this research. In addition, the researchers used a structured questionnaire to gather valuable information from the large pool of respondents. The population comprised all the employees (lower, middle, and top management employees) and the managers in the eight (8) consumer goods manufacturing firms in Southwest Nigeria.

The sample size for employees and managers of selected firms is 410, as recommended using Bartlett, Kotrlik and Higgins and Taherdoost (2017) Sample Size Determinant Table. The enquiries in the questionnaire are structured to certify that it takes respondents at least five minutes to respond. Descriptive and statistical examinations were used to investigate and analyze the data gathered. The primary data from the survey was used in a quantitative research approach. Structural equation modelling and partial least square and statistical package for social sciences (SPSS) version 26 were used to examine primary data obtained from certified consumer goods manufacturing enterprises in Southwest Nigeria..

4. Result and Analysis

The staff of the selected consumer goods manufacturing firms (CGMF) in Southwest Nigeria served as the study's unit of analysis. Each company has its own approach to social responsibility. A well-structured questionnaire was provided to the respondents in 410 copies; 353 copies were collected and declared usable for analysis. This represented an 86 percent response rate, which is substantial enough to establish a baseline and valid for the conclusion and reliability of the study problem on the link between the variables. Table 1 shows the response rate to the questionnaire that was distributed.

Table 1: Respondents' Response Rate

Sample Size	**Number**	**Percentage**
Correctly filled and Returned	353	86%
Not Returned and not completely filled	57	14%
Total	410	100%

Table 2 shows the demographic characteristics of the staff in the selected eight (8) consumer goods manufacturing firms in Southwest, Nigeria. The tables presented represent the descriptive statistics on the classification of responses on demographic characteristics of respondents.

Table 2: Shows the demographic characteristics of the staff in the eight CGMF

		Frequency	**Percent**
Gender	Male	181	51.3
	Female	172	48.7
	Total	**353**	**100**
Age	18-30	185	52.4
	31-40	123	34.8
	41-50	35	9.9
	51 and above	10	2.8
	Total	**353**	**100**
Marital status	Single	157	44.5
	Married	195	55.2
	Others	1	0.3
	Total	**353**	**100**
Highest Educational Qualification	OND	42	11.9
	H.ND/B.Sc	180	51.0
	Masters	128	36.3
	Others	3	0.8
	Total	**353**	**100**
Work Experience	0-10 years	267	75.6
	11-20 years	79	22.4
	21-30 years	7	2.0
	30 above	0	0
	Total	**353**	**100**
Job Status	Junior Staff	240	68.0
	Mid Management	102	29.7
	Senior Management	8	2.3
	Total	**353**	**100**

The first section shows the gender distribution of respondents. A total of 181 (51.7%) male respondents and 172 (48.7%) female respondents were sampled in the study. The table shows the gender distribution of each firm within the total sample. The second section shows the age, where out of the 353 total respondents, 185 (52.4%) respondents were between 18-30 years, 123 (34.8%) respondents were within the age group of 31-40, 35 (9.9%) of them were within the age group of 41-50 years, while 10 (2.8%) respondents were above 51 years old. The third section shows the marital status, where out of the 353 total respondents, 157 (44.5%) respondents were single, 195 (55.2%) respondents were married, and 1 (0.3%) respondent was divorced. The fourth section

shows the highest educational qualification out of the 353 total respondents, 42 (11.9%) respondents have OND, 180 (51.0%) respondents have HND/BSc, 128 (36.3%) respondents have a Master's degree, and 3 (0.8%) respondents were others with Doctorate and professional certifications.

The fifth section shows the work experience, where out of the 353 total respondents, 267 (75.6%) respondents have between 0-10 years of work experience, 79 (22.4%) respondents have between 11-20years of work experience and 7 (2.0%) respondents have work experience with the selected consumer goods manufacturing firms in Southwest, Nigeria for 21 years and above. The sixth section shows the job status, where out of the 353 total respondents, Junior Staff 240 (68.0%), Middle Management 102 (29.7%) and Senior Management 8 (2.3%). This implies that the majority of the respondents are educated and experienced, meaning that their responses can be relied on.

4.1 Descriptive Statistics

Tables 3 and 4 demonstrated the frequency distribution for environmental standards and competitiveness.

Table 3: Frequency Distribution for Environmental Standards

s/n	Items	Frequency and Percentage				Total	Mean	SD
		Strongly agreed	Often	Sometimes	Never			
1	Waste management	90 25.5%	103 29.2%	74 21%	86 24.4%	353 100%	3.417	.820
2	Prevention of pollution/hazard	92 26.1%	135 38.2%	76 21.5%	50 14.2%	353 100%	3.255	.943
3	Prevention of ecological imbalance	123 34.8%	125 35.4%	92 26.1%	13 3.6%	353 100%	3.040	.866
4.	Energy savings	133 37.7%	155 43.9%	11.9 26.1%	23 3.7%	353 100%	3.174	.874
	Average Means Score						**3.221**	**0.876**
	Decision (3.221) = Satisfied							

Table 3 indicates the measures of environmental standards for the selected manufacturing firms. It was discovered from the table above that 90(25.5%) and 103(29.2%) of the respondents strongly agreed and agreed that they intensify efforts in managing waste; 74 (21%) disagreed, while 86(24.4%) of the respondents strongly disagreed with the statement. This implies that most of the staff of the selected Consumer goods manufacturing firms in South-West Nigeria, representing 54.7%, affirmed that they engage in waste management.

It was also revealed that 92(26.1%) and 135(38.2%) of the people that responded strongly agreed and agreed that they make significant contributions to preventing pollution/hazard; 76 (21.5%) disagreed, while 50(14.2%) of the people that responded strongly disagree with the statement. This infers that the majority of the staff across various levels, representing 64.3%, make efforts to prevent pollution and hazards to the community members.

However, 123(34.8%) and 125(35.4%) of the people that responded strongly agreed and agreed with the statement that they ensure they prevent ecological imbalance; 92 (26.1%) disagreed, while 13(3.6%) strongly disagreed with the statement. This indicates that most of the staff of the selected Consumer goods manufacturing firms in South-West Nigeria, representing 70.2%, ascertained the willingness to preclude ecological imbalance.

It was also revealed that 133 (37.7%) and 155(43.9%) of the people that responded strongly agreed and agreed that they significantly engage in energy savings; 76 (21.5%) disagreed, while 50(14.2%) of the people that responded strongly disagree with the statement. This infers that most of the staff across various levels representing 64.3%, make efforts to facilitate energy savings. The findings suggest that greater environmental standards are associated with perceived customer retention. Nonetheless, it may be helpful for consumer goods manufacturing firms to ensure the prevention of hazards, which is a fundamental factor in the organization of a system of protection for man.

Table 4: Frequency Distribution for Firms Competitiveness

SN	Indicators	Total	Mean	SD
1	Corporate image	353	3.540	.735
2	Talent attraction	353	3.485	.624
3	Public trust	353	3.372	.787
4	Market Share	353	3.278	.733
5	Customer retention	353	3.311	.570
Total			**3.397**	**.690**

The average mean score of firms' competitiveness in Table 4 agrees with the frequency and percentage section. Using the criteria for understanding the mean scores of satisfaction level, it can be depicted that all the selected consumer goods manufacturing firms ranging from Firm 'A' to Firm 'H' were extremely satisfied (with an average mean score of 3.397) with the level of their competitiveness.

4.2 Test of Hypothesis

The hypothesis states that environmental standards do not affect Firms' Competitiveness. The hypothesis has one exogenous variable (environmental standards) and one endogenous variable (firms' competitiveness [i.e. corporate image, market share, public trust, talent attraction and customers' retention]) in the selected Consumer goods manufacturing firms in South-West Nigeria). The specific standards for evaluating the structural model, as shown in Figure 1, were the path coefficient (β value), coefficient of determination/r-squared, bootstrapping analysis, the model's predictive power and the Goodness-of-Fit (GOF) index.

The variables of the research were measured with the use of four Likert scale structured questionnaire. The environmental standards, which is the latent variable, were measured with four (4) items. In comparison, firms' competitiveness (i.e. corporate image, market share, public trust, talent attraction and customer retention) in the selected Consumer goods manufacturing firms in South-West Nigeria was measured with fifteen (15) items, as shown in Figure 1. The items adapted for measuring environmental standards include waste management, prevention of pollution/hazard, prevention of ecological imbalance and energy savings. For this reason, data were analysed using structural/measurement models. Specifically, the use of Partial Least Square-Structural Equation Modelling (PLS-SEM) was adopted, and Table 5 shows the factor loadings.

Table 5: Factor Loading for Environmental standards

	Factor Loading	Error Variance	Composite Reliability	AVE	Cronbach's Alpha	No. of Indicators
Indicators	**> 0.7**	**< 0.5**	**≥ 0.8**	**≥ 0.5**	**≥ 0.7**	
Corporate Environmental Responsibility (CER)			0.844	0.609	0.816	4
CER1	0.838	0.162				
CER2	0.749	0.251				
CER3	0.833	0.167				
CER4	0.717	0.283				

Table 5 shows that all the environmental standards and competitiveness constructs of the selected consumer goods manufacturing firms have values of more than 0.80 and 0.70, respectively, indicating composite internal consistency and Cronbach Alpha reliability. The construct-specific measurements had factor loadings ranging from 0.717 to 0.838. The instrument was declared reliable and valid since the primary requirement for the degree of fitness was met satisfactorily. Figures 1 and 2 depicts the outcome of the inner structural model, which showed that not a single item had a loading factor less than 0.6.

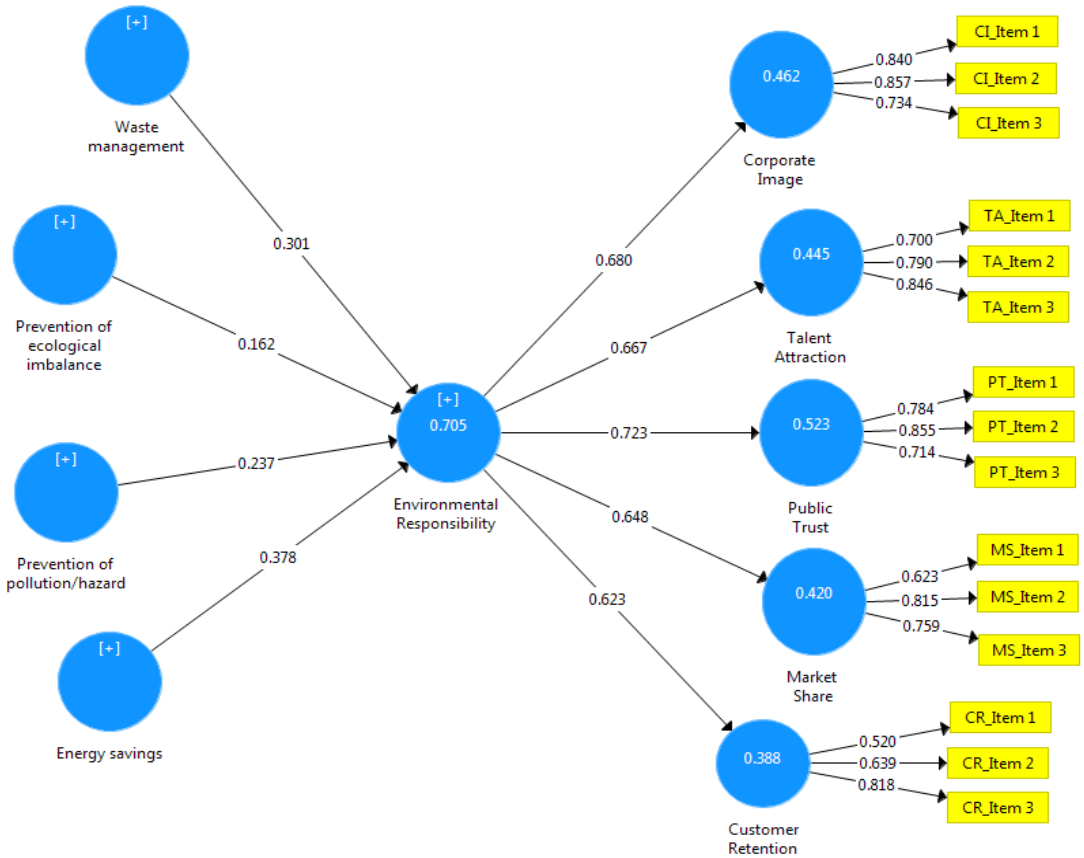

Figure 1: Predictive relevance of Environmental standards and Firms' competitiveness

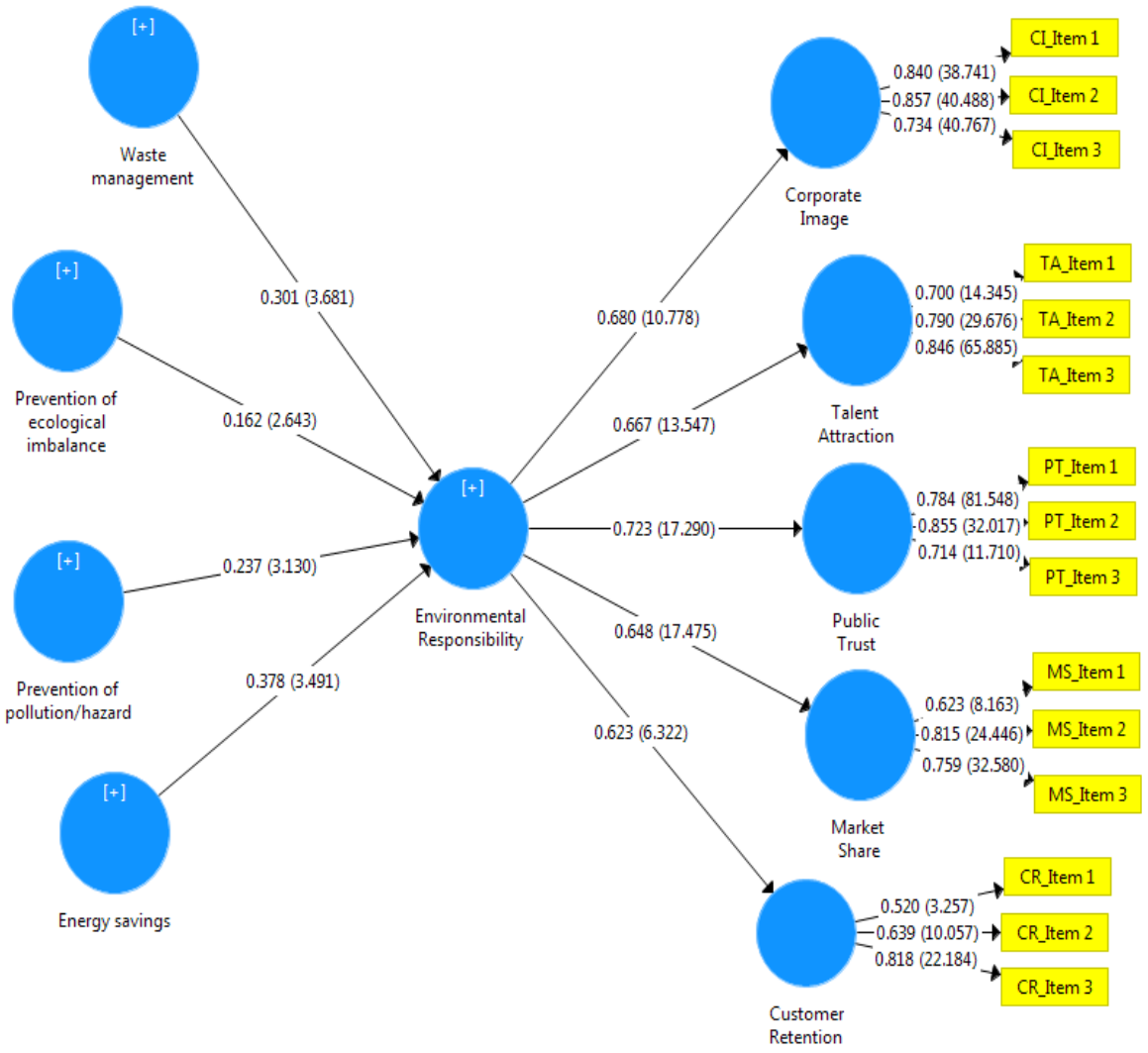

Figure 2: Path Co-efficient and T-values for Environmental Standards and Firm Competitiveness

The path coefficient and bootstrapping of all constructs indicate significant relationships in the analysis at 0.05. The model indicated statistically significant path co-efficient between environmental standards (responsibility) and customer retention (i.e. β=.623, T_{val} = 6.322, p=.000); environmental standards (responsibility) and market share (i.e. β=.648, T_{val} = 17.475, p=.000); environmental standards (responsibility) and public trust (i.e. β=.695, T_{val} = 17.290, p=.000); environmental standards (responsibility) and talent attraction (i.e. β=.677, T_{val} = 13.547, p=.000); environmental standards (responsibility) and corporate image (i.e. β=.680, T_{val} = 10.778, p=.000). Hence, the result shows that environmental standards (responsibility) contribute more to public trust, corporate image and talent attraction, while customer retention had the least. All the path coefficients were of significant importance since the significance level is below .05.

Table 6: Path Coefficients for Environmental standards and Firms Competitiveness

Variables and Cross Loading	Path Co-efficient	Std. Dev. (STDEV)	T-Statistics (O/ STDEV	P Values
Environmental standards → Customer Retention	0.623	0.076	6.322	0.001
Environmental standards → Market share	0.648	0.069	17.475	0.000
Environmental standards → Public Trust	0.723	0.084	17.290	0.000
Environmental standards → Talent Attraction	0.667	0.071	13.547	0.000
Environmental standards → Corporate Image	0.680	0.080	10.778	0.000
	R Square (R^2)		R Square (R^2) Adjusted	
Environmental standards	0.705		0.689	
Customer Retention	0.388		0.378	
Market share	0.420		0.413	
Public Trust	0.523		0.511	
Talent Attraction	0.445		0.437	
Corporate Image	0.462		0.444	

The path coefficient and bootstrapping of all constructs indicate significant relationships in the analysis at 0.05. The model indicated a statistically significant path co-efficient between environmental standards (responsibility) and customer retention (i.e. β=0.623, Tval = 6.322, p=0.000); environmental standards (responsibility) and market share (i.e. β=0.648, Tval = 17.475, p=0.000); environmental standards (responsibility) and public trust (i.e. β=0.695, Tval = 17.290, p=0.000); environmental standards (responsibility) and talent attraction (i.e. β=0.677, Tval = 13.547, p=0.000); environmental standards (responsibility) and corporate image (i.e. β=0.680, Tval = 10.778, p=0.000). Hence, the result shows that environmental standards (responsibility) contribute more to public trust, corporate image and talent attraction, while customer retention had the least. All the path coefficients were of practical importance since the significance level was below 0.05.

Besides, the result also suggested that provision of energy savings (i.e. β=0.378, Tval = 3.491, p=0.000); and waste engagement (i.e. β=0.301, Tval = 3.681, p=0.000); have the highest beta values among the constructs that best predict competitiveness (i.e. corporate image, market share,

public trust, talent attraction and customers' retention) of the selected firms. In contrast, prevention of ecological imbalance (i.e. β=0.162, Tval = 2.643, p=0.000) had the least influence on the competitiveness of the selected firms. Unambiguously, the path analysis and bootstrapping based on the organisational level was also developed to ascertain and assess how environmental standards influence competitiveness (i.e. corporate image, market share, public trust, talent attraction and customers retention) of the selected consumer goods manufacturing firms in South-West Nigeria. This showed the high predictive and explanatory power of the structural models and path analysis for the environmental standards and firms' competitiveness..

5. Discussion

This hypothesis predicted that environmental standards, which comprised the waste management, prevention of pollution/hazard, prevention of ecological imbalance and energy savings, significantly influenced competitiveness (i.e. corporate image, market share, public trust, talent attraction and customers' retention) of the selected Consumer goods manufacturing firms in South-West Nigeria. Hence, the result shows that environmental standards positively and significantly affect firms' competitiveness (i.e. corporate image, market share, public trust, talent attraction and customer retention) (β = 0.725, r2 = .526, p= 0.000). The correlation coefficient of 52.6% indicates that the combined effect of the predictor variables (environmental standards components) has a good and positive relationship with competitiveness of the selected Consumer goods manufacturing firms in South-West Nigeria.

The findings support the works of Alipour, Safaeimanesh and Soosan (2019), who ascertained that greater environmental standards are associated with perceived customer retention. This suggests the need for the consumer goods manufacturing firms to ensure continued prevention of hazards which is a fundamental factor sustainable practices. These findings are consistent with Olanrewaju and Ifenna (2011), who have also concluded that environmental standards have a significant positive association with performance. According to the findings, environmental standards positively impact firm competitiveness, which leads to long-term sustainability. Managers of the selected consumer goods manufacturing firms should become increasingly aware that environmental pollution prevention and control involve a number of complex social systems that should be examined within a sufficiently broad framework to include all intrinsic and extrinsic factors that may affect human health and other objectives. The findings were also in line with

research by Christiansen and Chandan (2017), which stated that activities of protecting the environment in the creation of sustainability are likely to result in minimizing waste, and maintaining and sustaining natural resources, thus creating a very resilient connection between corporate environmental responsibility and sustainable performance.

6. Conclusion and Recommendations

This study concludes that for the manufacturing sector to achieve environmental sustainability, it is essential to understand how environmental standards influence competitiveness, which in turn affects the performance of firms and improves overall sustainability. In this sense, the study confirmed that corporate environmental responsibility through environmental protection strengthens environmental management's effective formulation and accomplishment. Interestingly, consumer goods manufacturing firms have several practices and advantages through the application of environmental protection. These include waste management, prevention of pollution/hazard, prevention of ecological imbalance and energy saving, and attracting and retaining customers interested in environmental conservation. Furthermore, according to Alipour, Safaeimanesh, & Soosan (2019), consumer goods manufacturing firms that apply corporate environmental responsibility through environmental protection enjoy more incredible benefits than those that do not perform these practices. Nonetheless, there are many benefits generated based on environmental protection implementation for manufacturing firms as well as the environment.

The study however recommends the following:

i. Consumer goods manufacturing firms should understand and increase the scope and depth of CER practices like environmental protection, so firms can improve their environmental performance more sustainably than in the past. This implies that the managers of consumer goods manufacturing firms should examine the amount of CER practices within their scope of operations to create targets, goals, and responsibilities for their divisions or departments.
ii. For the firms to reduce their effect on the environment, they need to implement ways to save water, energy and reduce waste. The use of a water meter is necessary to know the amount of water that has been consumed. This can be achieved by putting aerators on taps to reduce water pressure and fixing heat pumps for air conditioners and pools. The use of

solar on the driveway or car park. This could save a lot of money on electricity every year after the first installation.

iii. To reduce waste drastically in the firms from going to landfills, the firms should produce tons of composite on-site every month. They can have posters and talks to communicate the reason for the new process introduced in managing waste. Lastly, management should implement a policy framework that will help accurately measure the amount of waste going to the landfill and look for ways to reduce waste once more.

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