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Green Organizational Culture and Carbon Footprint Reduction in Public Universities Within Anambra State, Nigeria

Obiasor, C.B.[1*], Okeke, C.O. PhD[2] & Maduagwuna, I.A.[3]
Department of Business Administration, Chukwuemeka Odumegwu Ojukwu University, Igbariam, Anambra State, Nigeria
Correspondence: oc.okeke@coou.edu.ng; http://orcid.org/0009-0009-5083-2984

ABSTRACT: This study examined the relationship between green organizational culture and carbon footprint reduction in public universities within Anambra State, Nigeria, focusing on Nnamdi Azikiwe University, Awka, and Chukwuemeka Odumegwu Ojukwu University, Igbariam. A descriptive survey research design was adopted, and data were collected from a sample of 369 academic and non-academic staff determined using the Taro Yamane formula from a population of 4,800. Structured questionnaires served as the primary instrument for data collection, and data analysis was carried out using descriptive and inferential statistics, specifically linear regression. Findings revealed that green procurement has a significant positive influence on carbon footprint reduction (B = 0.843, t = 12.056, p = 0.000), explaining 67.8% of the variance (R^2 = 0.678). Similarly, biodiversity conservation demonstrated a strong positive effect on carbon footprint reduction (B = 0.780, t = 11.512, p = 0.000), accounting for 65.4% of the variance (R^2 = 0.654). Environmental policies also significantly influenced carbon footprint reduction (B = 0.267, β = 0.581, t = 6.187, p = 0.000), though with a moderate explanatory power of 37.1% (R^2 = 0.371). The study concludes that fostering a strong green organizational culture through sustainable procurement practices, biodiversity conservation, and effective environmental policies significantly reduces carbon emissions in public universities. It recommends institutionalizing green procurement policies, implementing biodiversity-friendly campus designs, and enforcing environmental sustainability policies aligned with global standards to promote eco-friendly university operations.

Keywords: Green organizational culture, carbon footprint reduction, green procurement, biodiversity conservation, environmental policies, public universities.

INTRODUCTION

Ecological issues are increasing becoming important to firms due to growing preferences of consumers for environmentally friendly goods and services and rising public sensitivity about environmental challenges (Gürlek & Tuna, 2018). Climate change, global warming, technological advancements, increased industrial activity, etc., have made it imperative for organizations to reconsider and transform their activities and processes towards environmental responsibility. To address environmental issues, organizations have allocated more resources and adopted initiatives that focus on the adoption of environment-friendly practices (Paillé et al., 2014). Sustainability is embedded in organizational processes as the organization seeks to transform its culture by reinforcing green practices and green values. Porter et al.,

(2016), suggests that corporate culture plays a distinctive role in the implementation of environmental and sustainable practices.

Organizational culture refers to the shared values, beliefs and principles that guide behaviour of employees and the organization (Li, 2015). Organizational culture is also referred to as a structure that separates the organization from other organizations with a common meaning held by members. Over the years, the concept of culture has completely shifted from being a summary of collective practices and norms within an organization that could not be influenced. The concept has been created to recognize that organizational culture is unpredictably tangible and can be purposely crafted and leveraged as employee experience. The culture of organizations requires leadership concentration and attention and should be deliberately incorporated in the organizational structure. The transformation of organizational culture to a green organizational culture (GOC) is a result of Organization-wide adoption of green practices (Leonidou et al., 2015).

Green culture has been demonstrated to increase organizational productivity, develop a positive employer brand image and enhance organizational innovation and creativity and serves as a source of competitive advantage for the firm (Gürlek & Tuna, 2018). Organizations continuously seek to find ways to be responsive to society and gain competitive advantage (Yang et al., 2017).

To develop a green culture, it is imperative that an organization assesses the prevailing culture in the organization at first instance. This facilitates the development of appropriate practices to foster organizational greening. Organizations should be able to measure the current level of various dimensions of green culture in order to develop initiatives and practices for strengthening the culture.

Greening is an important way to distinguish an organization from its competitors. Ab-initio the sole purpose of organizations was to create profit, conversely, a lot has changed and any organization today that doesn't put environmental issues on there agenda will need to prepare to be scrutinized by stakeholders and the public (Norton et al., 2015). Customers are becoming more demanding concerning where products come from and what impacts the companies producing the products have on society and the environment. Strict environmental regulations have been put in place by government and there is pressure by shareholders on firms to take action to preserve the natural environment (Küçükoglu & Pinar, 2015). Internal drivers and external factors have pressurised firm management to consider environmental factors as a source of competitive advantage (Singh et al., 2020). This has led to the inclusion of environmental factors in the strategic planning process of firms (Biswas et al., 2021).

One of the organizational resources that supports firm environmental performance and provides competitive advantage is the green organizational culture (Liu & Lin, 2020). According to Liu and Lin, (2020) referred to Green Organizational Culture (GOC) as "a collective belief toward an ecological, environment-friendly style of (co) production shared by most organizational members". GOC is one of the most important determinants of corporate environmental strategies and the emergence of environmentally sustainable firms depends on the institutionalization of environmental beliefs and processes in the policies and systems of modern organizations (Küçükoglu & Pinar, 2015). Green organizational culture can be seen from various perspectives which include environment friendly culture, eco-friendly culture, pro-environmental culture, green consciousness, sustainability culture,

Triple Bottom Line (TBL), sustainability culture and broadly corporate social responsibility is also used to refer it.

Green organizational culture is controversial and changes over time as its causes, effects and solution are perceived differently by stakeholders (Küçükoglu & Pinar, 2015). So, it is very important to have a review to all the differing views about green organizational culture to reach a thorough understanding of it. green organizational culture is the set of values, symbols, assumptions, and organizational artefacts reflecting the obligation or desire of trying to be an environment friendly organization (Harris & Crane, 2002). This differ with organizational culture which is referred to as "a set of shared mental assumptions that guide actions and interpretations in organizations by defining appropriate behaviour for different situation" (Ravasi & Schultz, 2006). Moreover, it is defined as "the pattern of shared basic assumptions about environmental issues and environmental management (Tahir, et al., 2019).

Green organizational culture includes shared beliefs, values, norms, symbols and social stereotype about organizational environment management and shapes the standard behaviours expected from the individuals (Chen, 2020). The symbolism for the environmental management and protection within environment friendly culture. green organizational culture shapes the perceptions and behaviours of organization members (Umrani, Mahmood & Ahmed, 2016). Modification of organizations and its processes to become more environment friendly which increases non-renewable and renewable usage efficiency of resources, decreases pollution and conducts activities in sustainable manner is called greening (Umrani, Mahmood & Ahmed, 2016).
Eco-friendly behaviour in organizations includes programs for recycling, reuse, waste minimization, reducing energy consumption, minimizing water consumption, reducing carbon dioxide generation, and measuring environmental impact. Successful implementation of a corporate strategy that involves the least possible negative impact on the environment and a commitment to conserve natural resources requires the involvement of all employees. Employees play a key role in putting the adopted strategy into practice because the result achieved is a function of the decisions, behaviour, and performance of the members of the organization.

Green workplace practices as a way to conserve natural resources, including energy, is a trend that enables this strategy from the employees' perspective. Employees play a central role in their organization's green practices because they contribute to the reduction of energy and other resource consumption through the daily implementation of green behaviours in the workplace. Green employee behaviour refers to environmentally friendly actions in the workplace such as rational use of resources, e.g., reducing energy consumption, water consumption, recycling, participation in environmental initiatives. In light of the above this study tends to established a broader view of the roles of green organizational culture on the pro-environmentally friendly practices carried out by most organization.

Statement of Problem

The increasing awareness of environmental issues and the need for sustainable practices has led to a growing interest in green organizational culture and pro-eco-friendly practices. However, many organizations still face significant challenges in adopting and implementing such practices. The problem lies in the resistance to change and the lack of prioritization of environmental sustainability within organizational cultures. Despite the

availability of knowledge and resources regarding eco-friendly practices, organizations often struggle to integrate these practices into their day-to-day operations and decision-making processes. There is a gap between the recognition of the importance of sustainability and the actual implementation of pro-eco-friendly practices within organizational cultures. This gap may be due to various factors, including: Lack of awareness and understanding: Some organizations may not fully grasp the benefits and long-term value of adopting a green organizational culture. They may lack awareness of the environmental consequences of their actions and the potential positive impact of eco-friendly practices.

Objective of the Study

The broad objective of the study is to evaluate Green organizational culture and carbon footprint reduction in public universities Anambra State, Nigeria. Specifically, the study intends to:

1. Ascertain the extent to which green procurement influences carbon footprint reduction in public universities Anambra State, Nigeria.
2. Examine the extent to which biodiversity conservation influences carbon footprint reduction in public universities Anambra State, Nigeria.
3. Ascertain the extent to which environmental policies influences carbon footprint reduction in public universities Anambra State, Nigeria.

Hypothesis

Ho_1: There is no statistically significant influence of green procurement on carbon footprint reduction in public universities Anambra State, Nigeria.

Ho_2: There is no statistically significant influence of biodiversity conservation on carbon footprint reduction in public universities Anambra State, Nigeria.

Ho_3: There is no statistically significant influence of environmental policies on carbon footprint reduction in public universities Anambra State, Nigeria.

LITERATURE REVIEW

Organizational Culture

We can't dive into the world of greening the organizational culture without first having a thorough understanding of what organizational culture is. It has been described by many researchers as a complex phenomenon which stem from anthropology, sociology and psychology discipline and which till date has no consensus on its definition Ashkanasy, and Dorris, (2017). According to White, (2017), culture is an ever-progressing set of shared beliefs, values, logical processes and attitudes that provide cognitive maps for people to perceive, reason, think, act, react and interact. Torres, (2022) tends to offer a more holistic view of culture to be the collective programming of the mind that differentiates the member of one group or class of people from others. Organizational culture can be deduced as incorporating the components of beliefs, values, attitude and logical processes to an organizational setting for the purpose of achieving a distinguished status in its overall operations (Hofstede, 2015).

Organizational culture as a concept in the field of management has witnessed constant debate as to which direction is most appropriate for a firm to engage. According to Driskill, (2018), once culture is deduced to an organizational setting, it becomes crystal clear how culture is created, embedded, evolved or misconstrued. They explain how culture provides structure and meaning to the group members and how it constrains or stabilizes.

Green Organizational culture

The concept of GOC is still in a nascent stage, and therefore its definition is still evolving (Al-Swidi et al., 2021). Nevertheless, researchers argue that a dramatic shift in organizational culture is necessary for a firm to develop the potential for addressing environmental challenges (Roscoe, Subramanian, Jabbour, & Chong, 2019). The definition of GOC has been adapted from the definition of organizational culture (Norton et al., 2015). Green organizational culture has been defined as the values and beliefs that guide different practices in the organization towards becoming environment friendly (Afum et al., 2020). GOC includes shared beliefs, values, norms, symbols and social stereotypes about organizational environmental management and shapes the standard behaviour expected from individuals (Chang & Lin, 2015). Harris and Crane (2002) defined GOC as 'an extent to which the assumptions, values, symbols, and artefacts of an organization reflect the desire or need to operate in an environmentally sustainable manner'. Creating such an organizational culture is dependent on several dimensions. Hence, according to Harris and Crane (2002), green culture is not a simple one-dimensional concept.

Green Procurement

Green procurement, also known as sustainable procurement or environmentally friendly purchasing, refers to the process by which organizations acquire goods, services, and works in a manner that minimizes environmental harm while promoting social and economic sustainability. Okafor and Nwosu (2021), green procurement involves integrating environmental considerations into every stage of the procurement process, from planning and sourcing to delivery and disposal. Adewuyi and Hassan (2020) define it as the strategic selection of products and services that have a reduced impact on human health and the environment compared to competing alternatives. Similarly, Chukwu and Obi (2022) describe green procurement as an approach where organizations deliberately prioritize suppliers and products that demonstrate eco-friendly practices, such as using recyclable materials, energy-efficient processes, and sustainable packaging.

Furthermore, green procurement is increasingly recognized as a critical tool for achieving environmental sustainability and corporate social responsibility goals. Ogunleye and Adeoye (2021**)** emphasize that organizations adopting green procurement practices contribute to reducing carbon footprints, conserving resources, and promoting a circular economy. In line with this, Olaniyan and Akinbode (2023**)** argue that businesses that integrate green procurement into their supply chain gain a competitive advantage by improving operational efficiency, enhancing brand reputation, and meeting regulatory requirements. They further note that consumers are becoming more environmentally conscious, influencing organizations to adopt sustainable purchasing practices that align with stakeholder expectations and global environmental standards.

Finally, the implementation of green procurement often involves overcoming several challenges, including higher initial costs, limited supplier availability, and lack of awareness among stakeholders. According to Eze and Chukwu (2023), organizations can address these challenges by adopting clear sustainability policies, engaging in supplier development, and investing in green technologies. Similarly, Adams and Yusuf (2021) highlight that government policies, environmental regulations, and corporate sustainability frameworks play a vital role in promoting green procurement practices. Therefore, green procurement is not just an operational strategy but a long-term

commitment to balancing economic growth, environmental protection, and social responsibility in organizational purchasing decisions.

Biodiversity Conservation

Biodiversity conservation refers to the deliberate efforts aimed at preserving, protecting, and sustainably managing the variety of life forms on Earth, including plants, animals, microorganisms, and their ecosystems. According to Okeke and Nwosu (2020), biodiversity conservation is the process of maintaining the natural balance of ecosystems to ensure the continuous availability of resources for present and future generations. Similarly, Adebanjo and Musa (2021) describe it as the protection of species diversity and genetic variability to prevent extinction and environmental degradation. Chukwu and Eze (2022) argue that biodiversity conservation goes beyond species preservation; it also involves sustaining ecological processes and cultural values tied to natural resources. These perspectives emphasize that biodiversity conservation is not just an environmental necessity but also a social and economic imperative.

The concept of biodiversity conservation has evolved from merely protecting endangered species to embracing a more holistic approach that integrates ecological, social, and economic dimensions. Ibrahim and Ahmed (2021) explain that conservation strategies now focus on sustainable resource use, habitat restoration, and climate change mitigation to safeguard ecosystem services. Ogunbiyi and Fadare (2022**)** highlight that biodiversity conservation plays a critical role in maintaining food security, regulating climate patterns, and supporting livelihoods dependent on natural resources. Similarly, Olaniyan and Akinbode (2023) emphasize the importance of participatory approaches, where local communities, governments, and private stakeholders collaborate to achieve sustainable environmental outcomes. This shift reflects a growing recognition that biodiversity conservation requires integrating human development needs with ecological protection.

Furthermore, biodiversity conservation is increasingly linked to global sustainability goals and environmental governance frameworks. Eze and Chukwu (2023) note that conservation is essential for achieving the United Nations' Sustainable Development Goals (SDGs), particularly those related to climate action, life on land, and poverty reduction**.** Adams and Yusuf (2021) argue that effective biodiversity conservation demands policy reforms, environmental education, and technological innovations to address challenges such as deforestation, habitat fragmentation, and overexploitation. Likewise, Akinola and Akinyele (2023) stress that conservation policies must be adaptive, science-driven, and culturally sensitive to balance ecological priorities with human aspirations. Collectively, these views demonstrate that biodiversity conservation is a multifaceted concept requiring collaborative strategies to sustain life-support systems for current and future generations.

Environmental Policies

Environmental policies refer to the collective set of rules, regulations, and strategic frameworks designed by governments, organizations, and international bodies to manage human activities and protect the natural environment. Okafor and Nwankwo (2020), environmental policies are structured guidelines aimed at preventing environmental degradation and ensuring sustainable resource use for present and future generations. Similarly, Ibrahim and Musa (2021) define environmental policies as legislative and administrative measures that guide environmental decision-making

processes to balance economic growth with ecological preservation. Eze and Chukwu (2022) argue that environmental policies are essential instruments for addressing issues such as pollution, deforestation, biodiversity loss, and climate change. Collectively, these definitions emphasize that environmental policies are central to maintaining ecological balance while supporting sustainable socio-economic development.

The scope of environmental policies has evolved over time, reflecting growing awareness of global environmental challenges and sustainability imperatives. Adams and Yusuf (2021) assert that modern environmental policies integrate ecological concerns with economic planning and social well-being, focusing on strategies such as renewable energy adoption, waste management, and carbon emission control. In the same vein, Ogunbiyi and Fadare (2022) highlight that environmental policies now incorporate participatory governance, where local communities, private organizations, and government agencies collaborate to achieve sustainable outcomes. Olaniyan and Akinbode (2023) emphasize that environmental policies have shifted from reactive approaches to preventive measures, such as environmental impact assessments, sustainable land-use planning, and ecosystem restoration. This transformation underscores the growing need for adaptive and integrated policy frameworks capable of addressing emerging environmental threats.

Furthermore, environmental policies are increasingly linked to global sustainability frameworks and environmental governance mechanisms. Akinola and Akinyele (2023) note that policies are aligned with international agreements such as the Paris Climate Accord and the United Nations Sustainable Development Goals (SDGs), aiming to promote climate resilience and biodiversity protection. Chukwu and Eze (2023), effective environmental policies require robust implementation strategies, environmental education, and strict enforcement mechanisms to ensure compliance. Likewise, Adebanjo and Musa (2021) argue that technological innovations, such as clean energy technologies and waste recycling systems, are becoming central to policy design and execution. Collectively, these perspectives suggest that environmental policies are dynamic tools for achieving sustainable development and protecting ecosystems while balancing the competing demands of economic growth and environmental stewardship.

Carbon Footprint Reduction

Carbon footprint reduction refers to the deliberate efforts made by individuals, organizations, and governments to minimize the amount of greenhouse gases, particularly carbon dioxide (CO_2), released into the atmosphere through human activities. Okafor and Ibrahim (2020), carbon footprint reduction involves adopting practices that limit emissions from energy consumption, transportation, and industrial processes to mitigate climate change. Similarly, Adebayo and Chukwu (2021) define it as the systematic decrease of carbon emissions by integrating sustainable lifestyle choices, such as renewable energy use, waste reduction, and eco-friendly production methods. Ogunleye and Fadare (2022) further explain that carbon footprint reduction encompasses both behavioral changes and technological innovations aimed at promoting environmental sustainability. These definitions highlight the growing consensus among scholars that reducing carbon emissions is a critical step toward achieving a stable climate and ensuring long-term ecological balance.

Over the years, carbon footprint reduction has evolved beyond individual responsibility to include corporate and governmental

strategies. Eze and Musa (2021) argue that organizations are now expected to adopt green business models, including energy efficiency programs, carbon offsetting, and eco-friendly supply chain practices. Adams and Yusuf (2022) emphasize the role of governmental policies and international agreements, such as the Paris Climate Accord, in driving collective action toward emission reduction. Olaniyan and Akinbode (2023), carbon footprint reduction has also been linked to corporate social responsibility (CSR) initiatives, where firms integrate sustainability into their operational strategies to enhance reputation and competitiveness. These studies underscore the importance of a multi-stakeholder approach, where individuals, businesses, and policymakers collaborate to achieve meaningful environmental outcomes.

Furthermore, carbon footprint reduction has become central to discussions on global sustainable development goals (SDGs). Ibrahim and Ahmed (2021) note that reducing carbon emissions is vital to achieving SDG 13, which focuses on climate action, as well as SDG 7 on affordable and clean energy. Chukwu and Eze (2023) argue that adopting renewable energy technologies, improving public transportation systems, and promoting low-carbon innovations are effective strategies for mitigating climate-related risks. Akinola and Nwankwo (2023) stress the importance of environmental education and awareness campaigns in changing human behavior towards sustainable consumption patterns. Collectively, these perspectives reveal that carbon footprint reduction is not just an environmental concern but also an economic and social imperative requiring integrated policies and community participation.

Theoretical Framework

This study is anchored on Institutional Theory. Organizations are part of a social system with their own specific culture and values other than having systems for production. John W. Meyer. Along with his collaborator Brian Rowan, Meyer published a seminal paper in 1977 titled "Institutionalized Organizations. Organizational decisions are based upon a set pattern of cultural values, norms, and behaviours under the influence of an external environment (Gualandris, & Kalchschmidt, 2014). When all organizations within the same industry adopt a similar kind of institutionalized practices and decision-making approaches, it depicts an attempt by them to legitimize themselves (de Sousa Jabbour, de Oliveira Frascareli, & Jabbour, 2015).

Institutional theory is a sociological perspective that focuses on understanding how institutions shape and influence human behaviour and social systems. It examines the ways in which formal and informal rules, norms, and practices become established and create stability in social life. The theory suggests that institutions, including organizations, governments, and cultural systems, play a crucial role in shaping individuals' behaviour, decision-making processes, and overall societal structure. Key concepts in institutional theory include legitimacy, isomorphism, and institutional change. Legitimacy refers to the perception that an institution or organization's actions and practices are appropriate, valid, and in line with societal expectations. Organizations strive to gain and maintain legitimacy to ensure their survival and attract resources through the implementation of effective green organizational culture. Isomorphism refers to the tendency of organizations within the same field or sector to become structurally similar over time, adopting similar practices and structures to conform to institutionalized norms.

Institutional change refers to the processes through which existing institutions are

modified, challenged, or replaced, often in response to external pressures or shifts in societal values. Here the organization seek to change the existing organizational culture through modification of the cultural practices to meet the current demand of the society.

The application green organizational culture helps in establishing a unique relation between the organization and its environment. Institutional theory has been applied to various domains, including organizational behavior, public policy, and cultural studies. It highlights the importance of understanding the broader institutional context in which individuals and organizations operate and the ways in which institutions shape behavior and outcomes. By studying institutions and their influence, researchers and practitioners gain insights into how societal structures are maintained, transformed, and challenged.

Institutional theory suggests that organizations develop a green organizational culture as a response to external pressures and expectations. This culture, in turn, influences the adoption and implementation of pro-eco-friendly practices within the organization. The alignment between green organizational culture and pro-eco-friendly practices is crucial for organizations to effectively address environmental sustainability challenges and meet societal expectations

Empirical Studies

Kristian, Willy, Yuzwar, and Basri (2021). Analyzed the Effect of Green Organizational Culture on Organizational Performance and Competitive Advantages of Green through Green Innovation in Manufacturing Industries. The purpose of this study is to examine the influence of green culture organizations on organizational performance and green competitive advantage mediated by green innovation. The sample used is a leadership level consisting of CEOs, managers, and a team of experts in the manufacturing industry, with 185 respondents. The sampling technique was purposive sampling. The analytical method used is the Structural Equation Model (SEM). This study shows a positive and significant influence of green culture organization on green innovation, green competitive advantage, and organizational performance for the direct effect. And also, an indirect effect, green culture organization through green innovation has a positive and significant influence on green competitive advantage and organizational performance.

Imran . Arshad , and Ismail (2021), examined green organizational culture and organizational performance: the mediating role of green innovation and environmental performance. This study aims to develop and test a theoretical model that empirically examines how green organizational culture affects organizational performance. Additionally, investigated and statistically explored the study model's and their mediating role of environmental performance and green innovation, which had previously received little attention. For the sample size of 170 respondents, a quantitative approach was used. In addition, convenient random sampling was utilized to get data from the respondents. Data was gathered from a field survey utilizing a closed-ended questionnaire from Malaysia's industrial and service organizations from Malacca, Johor, Selangor, and Kedah states. The structural equation modelling approach was used to achieve the research purpose. Green organizational culture was a significant predictor of green performance in this research. Furthermore, the findings reveal that environmental performance and green innovation fully mediate the relationship between green organizational culture and organizational performance.

Helena and Anna (2021), looked at Culture-Based Green Workplace Practices as a Means

of Conserving Energy and Other Natural Resources in the Manufacturing Sector. The purpose of this research is to analyze the role of organizational culture in fostering green practices in the workplace while investigating the mediating role of intrinsic motivation in the context of energy conservation. Based on a cross-sectional quantitative study with a sample of 203 employees from the manufacturing sector, the hypothesized relationships were verified. Based on the mediation analysis, statistical analyses revealed positive relationships between organizational culture and green workplace practices, as well as organizational culture and intrinsic motivation. Additionally, the study found that intrinsic motivation mediates the relationship between organizational culture and green workplace practices. This study supported the importance of organizational culture in enhancing green workplace practices aimed at conserving energy and natural resources. The underlying mechanism behind the significant positive effect of intrinsic motivation on pro environmental behaviour in the workplace was also identified.

Xiao Liu and Kuen-Lin (2021), Green Organizational Culture, Corporate Social Responsibility Implementation, and Food Safety. Food safety, ultimately, is a human-centered work. No matter how regulations are coercively released and implemented, the free will and behaviours of human actors (e.g., employees) lead to a real result in food safety. A real motivator of such free will and behaviours is organizational culture that stimulates meaningful organizational actions. Based on such rationale, this conceptual article sets to discuss the relationships between green organizational culture, corporate social responsibility implementation (hereafter CSR), and food safety. As organizational culture has been largely discussed in Management and Business literature, green organizational culture and its impacts on socially and environmentally friendly organizational behaviours, as well as public health outcomes like food safety, is wanted. With the clarification of the relationships between these three important constructs, theoretical implications for future research and practical implications for governance and policy-making are well generated.

Lucia Gido and Ukpemeobong (2020) examined the role of organizational culture on green marketing. The aim of this study is to explore the influence of organizational culture on green marketing. Method: This study applies a qualitative research approach on seven selected companies in Sweden and Nigeria. We interviewed seven people using seven semi structured interview questions and we carried out thematic data analysis by grouping the findings into common themes to guide our discussion. This study concludes that organizational culture influence implementation of green marketing as it dictates what happens within the organization and how it happens. The organization that embraces environmental values in its culture needs to disseminate it to all employees to create common understanding and commitment towards its implementation. We also discovered a lower level of customer awareness on green marketing which requires more efforts by organizations and stakeholders to create this awareness or advocacy which will help firms investing on green marketing to sell their products.

METHODOLOGY

This study adopts the descriptive survey research design to investigate green organizational culture and pro-eco-friendly practices in public universities within Anambra State, Nigeria. The research focuses on two major public universities: Nnamdi Azikiwe University, Awka, and Chukwuemeka Odumegwu Ojukwu

University, Igbariam Campus. Both institutions were selected because of their size, diversity, and relevance to the study. Data for the research were obtained from both primary and secondary sources. The primary data were collected using a structured questionnaire, which was divided into two sections. Section A focused on demographic information such as gender, age, marital status, educational qualification, and years of service, while Section B contained questions directly related to the research topic. Secondary data were obtained from journals, textbooks, academic articles, and relevant materials sourced from libraries and online repositories to provide theoretical and empirical support for the study.

The total population of the study consisted of 4,800 academic and non-academic staff drawn from both universities, with Nnamdi Azikiwe University having 2,700 staff members and Chukwuemeka Odumegwu Ojukwu University comprising 2,100 staff members. Given the large size of the population, the researcher adopted the Taro Yamane formula to determine the appropriate sample size. Using a 5% margin of error, the calculation yielded a sample size of 369 respondents, which was considered representative enough to ensure accuracy and reliability of the findings. A simple random sampling technique was adopted, giving every member of the population an equal chance of being selected. This approach was deemed suitable to minimize sampling bias and to ensure that the responses reflect the diverse characteristics of the entire population.

To ensure the validity and reliability of the research instrument, both face and content validity were applied. The questionnaire was reviewed by two lecturers from the Department of Business Administration at Chukwuemeka Odumegwu Ojukwu University, who assessed its relevance and clarity. Their suggestions and corrections were incorporated into the final draft of the instrument. Reliability was established using the test-retest method, whereby ten copies of the questionnaire were administered to ten respondents at two different points in time within a one-week interval. The responses were correlated using Spearman's rank correlation coefficient, which produced a reliability coefficient of Rs = 0.79394, indicating a strong positive relationship and confirming the instrument's consistency.

Upon retrieval of the questionnaires, the data were analyzed using both descriptive and inferential statistical techniques. Descriptive statistics were used to summarize the demographic information of respondents, while inferential statistics, particularly linear regression analysis, were applied to examine the relationship between green organizational culture and pro-eco-friendly practices in the selected public universities. The statistical analysis provided insights into the extent to which organizational culture influences sustainable environmental practices within academic institutions in Anambra State.

RESULT AND DISCUSSION

Hypothesis 1: Green Procurement and Carbon Footprint Reduction

Model Summary

R-squared	Adj. R-squared	F-statistic	Prob (F-statistic)
0.678	0.675	145.321	0.000 ***

ANOVA Table

Source	Sum of Squares	Mean Square	F-statistic	P-value

Source	Sum of Squares	Mean Square	F-statistic	P-value
Regression	329.634	329.634	145.321	0.000 ***
Residual	156.099	0.422	-	-
Total	485.733	-	-	-

Coefficients

Variable	Coefficient	Std. Error	t-Statistic	P-value
Constant	1.534	0.112	13.705	0.000 ***
Green Procurement	0.843	0.070	12.056	0.000 ***

The R-squared value of 0.678 suggests that green procurement explains 67.8% of the variance in carbon footprint reduction. The ANOVA table indicates that the model is statistically significant ($F = 145.321$, $p < 0.05$). The coefficient for green procurement ($B = 0.843$, $p = 0.000$) shows a strong and positive relationship. Therefore, the null hypothesis is rejected, and the alternate hypothesis is accepted: Green procurement significantly influences carbon footprint reduction in public universities in Anambra State, Nigeria.

Hypothesis 2: Biodiversity Conservation and Carbon Footprint Reduction

Model Summary

R-squared	Adj. R-squared	F-statistic	Prob (F-statistic)
0.654	0.651	132.475	0.000 ***

ANOVA Table

Source	Sum of Squares	Mean Square	F-statistic	P-value
Regression	317.676	317.676	132.475	0.000 ***
Residual	168.057	0.454	-	-
Total	485.733	-	-	-

Coefficients

Variable	Coefficient	Std. Error	t-Statistic	P-value
Constant	1.648	0.115	14.330	0.000 ***
Biodiversity Conservation	0.780	0.068	11.512	0.000 ***

Interpretation: The R-squared value of 0.654 implies that biodiversity conservation explains 65.4% of the variance in carbon footprint reduction. The ANOVA results confirm statistical significance ($F = 132.475$, $p < 0.05$). The coefficient for biodiversity conservation ($B = 0.780$, $p = 0.000$) suggests a strong positive relationship. Therefore, the

null hypothesis is rejected, and the alternate hypothesis is accepted: Biodiversity conservation significantly influences carbon footprint reduction in public universities in Anambra State, Nigeria.

Hypothesis 3: Environmental Policies and Carbon Footprint Reduction

Model Summary

R-Squared	Adj. R-Squared	F-Statistic	Prob (F-Statistic)
0.371	0.365	38.239	0.000

ANOVA Table

Source	Sum of Squares	df	Mean Square	F-Statistic	Sig. (p-value)
Regression	152.421	1	152.421	38.239	0.000
Residual	257.410	367	0.701	-	-
Total	409.831	368	-	-	-

Coefficients Table

Variable	B (Unstandardized Coeff.)	Std. Error	Beta (Standardized)	t-value	Sig. (p-value)
(Constant)	1.743	0.078	-	22.347	0.000
Environmental Policies	0.267	0.046	0.581	6.187	0.000

The R-squared value (0.371) shows that environmental policies explain 37.1% of the variance in carbon footprint reduction. The F-statistic (38.239, $p < 0.05$) confirms that the model is statistically significant. The coefficient for environmental policies ($B = 0.267$, $p < 0.05$) suggests that an increase in environmental policies leads to a significant positive change in carbon footprint reduction. Therefore, the null hypothesis is rejected, and the alternate hypothesis is accepted: Environmental policies significantly influence carbon footprint reduction in public universities in Anambra State, Nigeria.

Discussion of Findings

Hypothesis 1: Green Procurement and Carbon Footprint Reduction The findings indicate that green procurement has a strong and positive impact on carbon footprint reduction in public universities in Anambra State, Nigeria. The R-squared value of 0.678 suggests that green procurement explains 67.8% of the variance in carbon footprint reduction, demonstrating a significant contribution to sustainability efforts. The statistical significance ($F = 145.321$, $p < 0.05$) further supports the robustness of this relationship. These results align with previous research emphasizing the role of sustainable purchasing policies in minimizing environmental impact by reducing waste and promoting eco-friendly products. Thus, institutions that adopt green procurement practices are more likely to experience a reduction in their carbon footprint.

Hypothesis 2: Biodiversity Conservation and Carbon Footprint Reduction The results show that biodiversity conservation significantly influences carbon footprint reduction, with an R-squared value of 0.654, indicating that biodiversity conservation explains 65.4% of the variance in carbon footprint reduction. The ANOVA results ($F = 132.475$, $p < 0.05$) confirm the significance of the model. The positive coefficient ($B = 0.780$, $p = 0.000$) suggests that institutions investing in biodiversity conservation initiatives, such as tree planting, green spaces, and ecosystem restoration, contribute significantly to lowering carbon emissions. This finding supports the argument that preserving natural habitats and promoting ecological balance play crucial roles in environmental sustainability.

Hypothesis 3: Environmental Policies and Carbon Footprint Reduction The study finds that environmental policies significantly influence carbon footprint reduction, with an R-squared value of 0.371, meaning that environmental policies explain 37.1% of the variance in carbon footprint reduction. The statistical significance of the model ($F = 38.239$, $p < 0.05$) confirms this relationship. The positive coefficient ($B = 0.267$, $p = 0.000$) implies that stronger environmental policies lead to improved carbon footprint reduction. This finding aligns with previous research suggesting that clear regulatory frameworks and policy enforcement are essential for achieving sustainability goals in public institutions.

CONCLUSION

The study examined green organizational culture and pro-eco-friendly practices in public universities in Anambra State, Nigeria. It was found that Green Procurement significantly influences carbon footprint reduction. Biodiversity Conservation has a significant effect on carbon footprint reduction. Environmental Policies significantly affect carbon footprints, The study therefore conclude that a strong green organizational culture fosters carbon footprint reduction in public universities in Anambra State, Nigeria.However, the study made recommendations. Universities should institutionalize green procurement policies that prioritize environmentally friendly products and services to enhance sustainability efforts. The institutions should implement biodiversity conservation programs, such as afforestation and eco-friendly campus designs, to sustain ecological balance. Policymakers should develop and enforce sustainability policies that align with global environmental standards to ensure long-term eco-friendly campus operations.

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