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The Effect Environmental Degradation On Financial Performance Of Manufacturing Companies In Nigeria.

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Abstract: *This study investigates the effect of environmental degradation, specifically land pollution and water pollution, on the financial performance of manufacturing companies in Nigeria. The objectives of the study were to determine the impact of land pollution and water pollution on the profitability, operational efficiency, and overall financial health of manufacturing companies. The research employed a quantitative approach, using data from selected manufacturing firms in Nigeria, and analyzed the relationship between environmental degradation and financial performance through statistical tools, including regression analysis. The findings revealed a significant negative relationship between land pollution and the financial performance of manufacturing companies, with companies facing increased operational costs due to fines, remediation expenses, and regulatory compliance. Similarly, water pollution was found to have a detrimental impact on profitability, with companies incurring higher treatment costs and potential loss of business due to environmental regulations. These environmental issues not only increased operational costs but also affected the companies' market reputation and customer trust, further affecting their financial performance. The study concludes that environmental degradation, especially land and water pollution, has a considerable adverse effect on the financial performance of manufacturing companies in Nigeria. It is recommended that manufacturing companies implement robust environmental management systems to mitigate pollution, comply with environmental regulations, and invest in sustainable practices. Additionally, the government should strengthen enforcement of environmental policies and offer incentives for companies adopting eco-friendly technologies. This will not only protect the environment but also enhance the financial sustainability of manufacturing firms in Nigeria.*

Keywords: Environmental Degradation, Financial Performance, Manufacturing Companies, water pollution, Land degradation

Introduction

The manufacturing sector plays a crucial role in driving societal progress. Through the production of goods, manufacturers contribute to improving the quality of life by providing access to essential products and services. It also creates employment opportunities and stimulates economic growth. By fostering innovation and technological advancements, manufacturing industries enhance productivity, competitiveness, and overall economic performance. Sustainability is a growing concern in the manufacturing industry. As the world grapples with the challenges of climate change and environmental degradation, manufacturers are increasingly adopting sustainable practices. Embracing renewable energy sources, reducing waste, and prioritizing eco-friendly materials are becoming key drivers in the evolution of the manufacturing sector. Additionally, sustainable manufacturing practices will become increasingly important as the world grapples with the challenges of climate change and environmental degradation. The manufacturing industry is a complex and dynamic sector that constantly faces a range of challenges and opportunities. From navigating global supply chain complexities to addressing environmental concerns, manufacturers must adapt and innovate to thrive in today's competitive landscape.

The manufacturing sector plays a vital role in Nigeria's economy, contributing significantly to the country's Gross Domestic Product (GDP) and providing employment opportunities for millions of people (CBN 2022). However, the sector's growth and operations have severe environmental consequences, including air and water pollution, waste management issues, climate change, and natural resource degradation. These environmental impacts not only harm the ecosystem but also threaten the sector's sustainability and competitiveness (Adebayo et al., 2022). Despite the significance of this issue, the relationship between environmental degradation and financial performance in Nigeria's manufacturing sector remains poorly understood (Kusi-Sarpong et al., 2020). Existing studies have focused primarily on the environmental impacts of manufacturing activities, neglecting the financial implications of environmental degradation (Ogbebor et al., 2022). This knowledge gap hinders policymakers, business leaders, and stakeholders from developing effective strategies to promote sustainable practices and mitigate environmental risks (Adewale et al., 2022).

The manufacturing sector faces significant environmental risk management challenges, affecting financial performance and long-term sustainability. Environmental degradation can lead to increased operating costs, compliance costs, and liability costs for

manufacturing companies (Adebayo et al., 2022). Conversely, companies that adopt environmentally friendly practices can benefit from cost savings, improved brand image, and increased market share (Kusi-Sarpong et al., 2020).

However, the lack of empirical research on this topic limits our understanding of the environmental-financial performance nexus in Nigeria's manufacturing sector.

Moreover, the manufacturing sector's environmental degradation has far-reaching consequences, including increased health risks, reduced quality of life, and decreased economic productivity (Ogbebor et al., 2022). The lack of empirical research on this topic limits our understanding of the environmental-financial performance nexus in Nigeria's manufacturing sector. Recent studies highlight the need for empirical research on environmental degradation's financial implications (Ogbebor et al., 2022; Adewale et al., 2022).

This study aims to address these knowledge gaps, providing insights into environmental degradation's financial implications for Nigeria's manufacturing sector. By investigating this critical issue, the research seeks to inform policymakers, business leaders, and stakeholders on strategies to promote sustainability and mitigate environmental risks.

Statement of Problem

Environmental degradation poses significant implications to the financial sustainability of manufacturing companies in Nigeria (Adewale et al 2020), yet there are limited studies on the impact of environmental degradation on financial performance of manufacturing companies in the context of Nigeria (Oyedele et al., 2020). The manufacturing sector in Nigeria has experience significant growth but this growth has come at a considerable environmental cost (Ogundipe et.al 2023). The sector's activities have led to increased levels of Air pollution, Water pollution, Land degradation and rising temperatures which not only harm the environment but also pose significant risk to the economy (Adebayo et .al. 2022). The relationship between environmental degradation and financial performance remains poorly understood thereby hindering effective policy and decision –making.

The existing literatures has reveals several significant gaps. There is a lack of integrated frameworks that consider the cumulative impact of various environmental degradation factors on financial performance (Corbett et al., 2018). Current studies tend to focus on individual factors, such as air pollution or water pollution, without examining their combined effects. Additionally, there has been insufficient attention to industry – specific effect and differences in Nigeria (Afolabi et al. 2020). Therefore this study investigate the effect of Environmental degradation (proxied by air pollution, water pollution, land degradation and environmental temperature) on financial performance of manufacturing companies in Nigeria , with a view to providing insights that can inform policy and practice.

Objectives of the study

1. Examine the effect of water pollution on financial performance of manufacturing companies in Nigeria
2. Determine the effect of land degradation on financial performance of manufacturing companies in Nigeria:

Research questions

1. To what extent does water pollution affect financial performance of manufacturing companies in Nigeria?
2. What is the effect of land degradation on financial performance of manufacturing companies in Nigeria?

Research hypotheses

H_{O1}: Water pollution has no significant effect on financial performance of manufacturing companies in Nigeria:

H_{O2}: There is no significant effect of Land degradation on financial performance of manufacturing companies in Nigeria:

Review of Related Literature

Conceptual review

Environmental degradation refers to the deterioration of the natural environment due to human activities, leading to harmful effects on ecosystems, human health, and the economy. This concept encompasses various forms of environmental harm, including air pollution, water pollution, soil degradation, biodiversity loss, and climate change (Kumar et al., 2022; Liu et al., 2022; Lal, 2022; IPBES, 2019; IPCC, 2021). The severity of environmental degradation has become a pressing concern, with far-reaching consequences for the well-being of humans and the planet.

The Natural Resource-Based View (NRBV) theory posits that companies can achieve competitive advantage by adopting environmentally friendly practices (Hart, 1995). The Stakeholder Theory emphasizes the importance of considering the interests of various stakeholders, including the environment (Freeman, 1984). Environmental degradation can be categorized into physical, chemical, and biological degradation, with physical degradation involving the destruction of natural habitats, deforestation, and land degradation (Kumar et al., 2022).

Physical degradation has severe consequences, including loss of biodiversity, decreased ecosystem services, and increased vulnerability to natural disasters (Lal, 2022). Chemical degradation occurs through pollution from industrial waste, pesticides, and fertilizers, contaminating water sources and soil (Liu et al., 2022). Biological degradation results in the loss of biodiversity and extinction of species, compromising ecosystem resilience (IPBES, 2019).

The primary causes of environmental degradation include population growth and consumption patterns, industrialization and technological advancements, agricultural practices, and deforestation (Kumar et al., 2022; Lal, 2022). Climate change and extreme weather events also contribute to environmental degradation (IPCC, 2021). The consequences of environmental degradation are far-reaching, impacting human health, the economy, and the environment.

Human health impacts include respiratory diseases, cancer, and other health problems (Kumar et al., 2022). Economic losses arise from decreased productivity, infrastructure damage, and loss of ecosystem services (Liu et al., 2022). Social impacts encompass displacement, cultural heritage loss, and decreased quality of life (IPBES, 2019). Environmental impacts include ecosystem disruption, biodiversity loss, and decreased resilience to climate change (UNEP, 2022).

Strategies to mitigate environmental degradation include sustainable resource management, renewable energy transition, eco-friendly technologies, and climate-resilient infrastructure (Lal, 2022; IPCC, 2021; Kumar et al., 2022;). International cooperation and policy frameworks are also crucial for addressing environmental degradation. Governments, businesses, and individuals must work together to address environmental degradation and ensure a sustainable future.

Concept of environmental degradation

Environmental degradation refers to the deterioration of the natural environment due to human activities, leading to harmful effects on ecosystems, human health, and the economy. This concept encompasses various forms of environmental harm, including air pollution, water pollution, soil degradation, biodiversity loss, and climate change (Kumar et al., 2022; Liu et al., 2022; Lal, 2022; IPBES, 2019; IPCC, 2021). The severity of environmental degradation has become a pressing concern, with far-reaching consequences for the well-being of humans and the planet.

Environmental degradation can be categorized into physical, chemical, and biological degradation. Physical degradation involves the destruction of natural habitats, deforestation, and land degradation (Kumar et al., 2022). This type of degradation leads to loss of biodiversity, decreased ecosystem services, and increased vulnerability to natural disasters. Chemical degradation occurs through pollution from industrial waste, pesticides, and fertilizers (Liu et al., 2022). Biological degradation results in the loss of biodiversity and extinction of species (IPBES, 2019).

The primary causes of environmental degradation include population growth and consumption patterns, industrialization and technological advancements, agricultural practices, and deforestation (UNEP, 2022; Kumar et al., 2022; Lal, 2022). Climate change and extreme weather events also contribute to environmental degradation (IPCC, 2021). The rapid expansion of urban areas and the increasing demand for natural resources have exacerbated environmental degradation.

The consequences of environmental degradation are far-reaching, impacting human health, the economy, and the environment. Human health impacts include respiratory diseases, cancer, and other health problems (Kumar et al., 2022). Economic losses arise from decreased productivity, infrastructure damage, and loss of ecosystem services (Liu et al., 2022). Social impacts encompass displacement, cultural heritage loss, and decreased quality of life (IPBES, 2019). Environmental impacts include ecosystem disruption, biodiversity loss, and decreased resilience to climate change (UNEP, 2022).

Furthermore, environmental degradation has significant economic implications. The World Health Organization estimates that environmental degradation costs the global economy approximately $6.5 trillion annually (WHO, 2020). In addition, environmental degradation can lead to decreased economic growth, increased poverty, and social inequality.

To mitigate environmental degradation, strategies such as sustainable resource management, renewable energy transition, eco-friendly technologies, and climate-resilient infrastructure are essential (Lal, 2022; IPCC, 2021; Kumar et al., 2022; UNEP, 2022). Implementing these measures can reduce the harmful effects of environmental degradation and promote sustainable development. Governments, businesses, and individuals must work together to address environmental degradation and ensure a sustainable future.

Moreover, international cooperation and policy frameworks are crucial for addressing environmental degradation. Global agreements such as the Paris Agreement and the Sustainable Development Goals provide a framework for addressing environmental degradation (UN, 2020). National and local policies, such as pollution regulations and conservation efforts, also play a vital role in mitigating environmental degradation.

In conclusion, environmental degradation is a pressing concern that requires immediate attention and action. Understanding the causes, consequences, and mitigation strategies is essential for promoting sustainable development and ensuring a healthy and thriving planet.

Land Pollution

Land pollution, also known as soil pollution, poses a significant threat to environmental sustainability and human well-being. It occurs when harmful substances, including chemicals, heavy metals, and microorganisms, contaminate the soil, compromising its fertility and affecting ecosystems and human health (United Nations Environment Programme, 2022). The primary sources of land pollution are diverse, encompassing industrial activities, agricultural activities, municipal solid waste, hazardous waste, and construction waste.

Industrial activities, such as mining, smelting, and manufacturing, release toxic chemicals and heavy metals into the soil, causing irreversible damage (Environmental Protection Agency, 2022). Agricultural activities, including pesticide and fertilizer use, contribute to soil contamination, affecting plant growth and human health through the food chain (Food and Agriculture Organization, 2022). Municipal solid waste, including household trash and sewage, often ends up in landfills, leaching toxic chemicals into the soil and groundwater (World Health Organization, 2022).

Hazardous waste, comprising industrial and chemical waste, poses significant risks to human health and the environment, requiring specialized disposal and management (European Environment Agency, 2022). Construction waste, including demolition materials and excavated soil, can contaminate soil and water resources if not properly managed (National Institute of Environmental Health Sciences, 2022).

Types of Land Pollution

Land pollutants encompass a wide range of harmful substances that contaminate the soil, posing significant risks to environmental sustainability and human well-being. The primary types of land pollutants include industrial waste, agricultural waste, municipal solid waste, hazardous waste, and construction waste (ScienceDirect, 2022). Industrial waste, generated from manufacturing and processing activities, contains toxic chemicals, heavy metals, and other hazardous substances that can leach into soil and groundwater (Environmental Protection Agency, 2022).

Agricultural waste, comprising pesticides, fertilizers, and livestock manure, contributes to soil contamination, water pollution, and loss of biodiversity (Food and Agriculture Organization, 2022). Municipal solid waste, including household trash and sewage, often ends up in landfills, releasing methane and leaching toxic chemicals into the environment (World Health Organization, 2022).

Hazardous waste, generated from industrial, chemical, and pharmaceutical activities, poses significant risks to human health and the environment due to its toxic and reactive nature (European Environment Agency, 2022). Construction waste, comprising demolition materials, excavated soil, and construction chemicals, can contaminate soil and water resources if not properly managed (National Institute of Environmental Health Sciences, 2022).

Effects of Land Pollution

Land pollution has far-reaching and devastating environmental and health consequences, posing significant threats to ecosystems, human well-being, and sustainable development. One of the primary concerns is soil contamination, which affects plant growth and ecosystems, compromising soil fertility and structure (Food and Agriculture Organization, 2022). Pollutants such as heavy metals, pesticides, and industrial chemicals can alter soil chemistry, reduce microbial activity, and harm plant growth.

Water pollution is another critical consequence of land pollution, resulting from leachate and runoff from contaminated soil (United States Geological Survey, 2022). This can lead to the degradation of aquatic ecosystems, harm aquatic life, and contaminate drinking water sources. The impact on water quality can have severe health implications for humans and wildlife.

Land pollution also contributes to loss of biodiversity, impacting ecosystems and ecosystem services (Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, 2022). Habitat destruction, fragmentation, and degradation can lead to population decline, extinction, and disruption of delicate ecological balances.

The human health risks associated with land pollution are equally alarming, including increased risk of cancer, neurological damage, reproductive issues, and respiratory problems (World Health Organization, 2022). Exposure to toxic chemicals, heavy metals, and pollutants can occur through ingestion, inhalation, or dermal contact.

Water Pollution

Water pollution poses a significant threat to the world's water resources, compromising aquatic ecosystems and human health. It occurs when harmful substances, including chemicals, heavy metals, microorganisms, and nutrients, contaminate water bodies, such as rivers, lakes, oceans, and groundwater (Environmental Protection Agency, 2022). The primary sources of water pollution are diverse, encompassing agricultural runoff, industrial effluent, municipal wastewater, stormwater runoff, and natural sources.

Agricultural runoff, resulting from fertilizer and pesticide use, contributes to nutrient pollution, harmful algal blooms, and soil erosion (Food and Agriculture Organization, 2022). Industrial effluent, generated from manufacturing and processing activities, releases toxic chemicals, heavy metals, and organic compounds into water bodies (World Health Organization, 2022). Municipal wastewater, comprising household and commercial waste, often contains pathogens, nutrients, and pollutants that harm aquatic life (United States Geological Survey, 2022).

Storm water runoff, generated from urban areas and construction sites, carries pollutants, sediment, and nutrients into water bodies, exacerbating water pollution (National Institute of Environmental Health Sciences, 2022). Natural sources, including sedimentation, erosion, and geological processes, also contribute to water pollution.

TYPES OF WATER POLLUTION

Water pollutants encompass a wide range of harmful substances that contaminate water bodies, posing significant risks to aquatic life, human health, and the environment. The primary types of water pollutants include pathogens, nutrient pollution, chemical pollutants, sedimentation, and thermal pollution (National Geographic, 2022).

Pathogens, such as bacteria, viruses, and protozoa, originate from human and animal waste, agricultural runoff, and wastewater treatment plants, causing waterborne diseases like cholera and typhoid fever (World Health Organization, 2022).

Nutrient pollution, primarily nitrogen and phosphorus, stems from agricultural fertilizers, sewage, and industrial effluent, leading to harmful algal blooms and eutrophication (Environmental Protection Agency, 2022).

Chemical pollutants, including pesticides, heavy metals, and industrial chemicals, enter water bodies through agricultural runoff, industrial processes, and wastewater, causing biochemical changes and toxicity in aquatic organisms (ScienceDirect, 2022).

Sedimentation, resulting from erosion and runoff, clouds water, harms aquatic habitats, and alters ecosystem dynamics (United States Geological Survey, 2022).

Thermal pollution, caused by industrial processes and dam operations, disrupts aquatic temperature regimes, affecting metabolic rates, growth, and survival of aquatic organisms (National Oceanic and Atmospheric Administration, 2022).

Effects of Water Pollution

Water pollution has far-reaching and devastating consequences, impacting aquatic life, human health, economies, and the environment. Aquatic life harm is a significant concern, as pollution affects fisheries, ecosystems, and biodiversity, with potentially irreversible damage (National Oceanic and Atmospheric Administration, 2022). Water pollution alters habitats, disrupts food chains, and causes population decline or extinction.Human health risks associated with water pollution are equally alarming. Waterborne diseases, such as cholera, typhoid fever, and dysentery, result from consumption of contaminated water (Centers for Disease Control and Prevention, 2022). Exposure to pollutants can also lead to cancer, neurological damage, and reproductive issues.

Economic impacts of water pollution are substantial, reducing fishing and tourism industries, and affecting livelihoods (World Bank, 2022). Pollution-related closures of fishing areas and recreational water bodies result in significant economic losses.

Environmental damage caused by water pollution includes dead zones, harmful algal blooms, and ecosystem disruption (ScienceDaily, 2022). Excess nutrients from pollution fuel harmful algal blooms, depleting oxygen and harming aquatic life.

Additionally, water pollution:

a. Affects human well-being, causing mental health issues and quality-of-life concerns (World Health Organization, 2022)
b. Impacts food security, reducing fish stocks and agricultural productivity (Food and Agriculture Organization, 2022)
c. Increases water treatment costs, straining municipal resources (Environmental Protection Agency, 2022)
d. Exacerbates climate change, contributing to ocean acidification and warming (Intergovernmental Panel on Climate Change, 2022)

To mitigate these effects, governments, industries, and individuals must adopt sustainable practices, enforce regulations, and invest in pollution prevention and water conservation.

Water Pollution

Increased temperatures can lead to water pollution, harming aquatic ecosystems and human health (United Nations Environment Programme, 2022). Water pollution can lead to the spread of waterborne diseases, such as cholera and typhoid fever. Water pollution can also harm aquatic ecosystems, leading to the loss of biodiversity and decreased fish populations.

The Nigerian manufacturing companies sector as a whole, have been implicated in temperature-related environmental degradation, including:

The Nigerian National Petroleum Corporation (NNPC)

The NNPC has been criticized for its role in gas flaring, which contributes to temperature-related environmental degradation (Nigerian National Petroleum Corporation, 2022). Gas flaring is a significant source of greenhouse gas emissions, particularly carbon dioxide and methane. Gas flaring can also lead to air pollution, water pollution, and soil pollution.

The Dangote Cement Factory

The Dangote Cement Factory has been accused of releasing excessive amounts of greenhouse gases, contributing to temperature-related environmental degradation (Dangote Cement Factory, 2022). The cement industry is a significant source of greenhouse gas emissions, particularly carbon dioxide (Akpofure et al. 2022). The Dangote Cement Factory has been criticized for its lack of transparency and accountability in its environmental practices.

Nigerian Breweries Plc: Nigeria Breweries Plc, a leading brewing company in Nigeria, has faced criticism for its environmental impact, particularly in regards to air pollution and environmental degradation. Here's a critique of the company's environmental performance: Nigeria Breweries Plc's operations generate wastewater, which can contaminate nearby water sources if not properly treated. This can harm aquatic life and affect human health.

The company's activities, such as the use of chemicals and pesticides, can lead to soil pollution, affecting soil fertility and ecosystem health.

A study on the environmental impact of breweries in Nigeria found that Nigeria Breweries Plc was among the breweries that had a significant impact on the environment, including water pollution and soil degradation." (Source: "Environmental Impact of Breweries in Nigeria" by A. O. Oyediran, published in the Journal of Environmental Management, 2019)

Unilever Nigeria Plc: Unilever Nigeria Plc's manufacturing operations release pollutants into the air, including particulate matter, nitrogen oxides, and volatile organic compounds. These emissions contribute to poor air quality, negatively impacting the health of -nearby communities (Adeyemi, 2020).

The company's reliance on fossil fuels for energy generation and transportation contributes to greenhouse gas emissions, exacerbating climate change (Kareem, 2022).

The company has faced challenges related to temperature-related environmental degradation, particularly in their food and beverage production processes. Rising temperatures have led to increased energy consumption, reduced productivity, and decreased product quality. Additionally, the company has faced challenges related to water scarcity, which has been exacerbated by increased temperatures. (Akinyele, 2020)

Improving Waste Management and Recycling Practices

Manufacturing companies generate a significant amount of waste during their production processes, which can have negative environmental and financial impacts. Recycling of waste has emerged as a crucial strategy for companies to reduce their environmental footprint and improve their financial performance

Nigerian manufacturing companies can improve waste management and recycling practices to reduce the environmental impacts of manufacturing activities (United Nations Environment Programme, 2022). Waste management and recycling practices can include the segregation of waste, composting, and recycling.

Environmental Degradation in Manufacturing Companies

Environmental degradation in manufacturing companies poses significant threats to the planet's ecological balance, human health, and economic sustainability. This degradation encompasses harmful impacts on the environment, including air pollution, water pollution, soil contamination, noise pollution, and waste generation (Environmental Protection Agency, 2022). Manufacturing activities release greenhouse gases, particulate matter, and volatile organic compounds into the atmosphere, contributing to climate change and respiratory problems (National Oceanic and Atmospheric Administration, 2022). Industrial processes also contaminate water bodies through chemical and heavy metal discharge, harming aquatic life and human health (World Health Organization, 2022).

Soil pollution results from improper waste disposal, industrial accidents, and chemical leaks, affecting soil fertility and ecosystems (United Nations Environment Programme, 2022). Noise pollution from manufacturing operations disrupts nearby ecosystems and human settlements (European Environment Agency, 2022). Furthermore, manufacturing generates substantial amounts of hazardous and non-hazardous waste, straining waste management infrastructure and posing environmental risks (International Solid Waste Association, 2022).

The causes of environmental degradation in manufacturing are multifaceted. Inefficient processes and outdated equipment contribute to pollution (McKinsey & Company, 2022). Lack of regulations and enforcement enables environmental neglect (Harvard Business Review, 2022). Raw material extraction and energy consumption drive environmental degradation (National Geographic, 2022). Effective solutions require adopting sustainable practices, investing in renewable energy, reducing waste, conducting regular audits, and promoting environmental awareness (United Nations Industrial Development Organization, 2022).

Examples of environmental degradation in manufacturing include oil spills (Exxon Valdez, BP Deep water Horizon), chemical leaks (Bhopal disaster, Chernobyl), textile industry pollution (fast fashion, dyeing processes), electronic waste generation (e-waste dumping), and mining impacts (deforestation, water pollution) (The Guardian, 2022). Regulations and initiatives like ISO 14001, Clean Air Act, Clean Water Act, Resource Conservation and Recovery Act, and the Paris Agreement aim to mitigate environmental degradation (International Organization for Standardization, 2022).

Environmental degradation encompasses various forms of ecological harm, threatening the planet's health and sustainability. Five primary types of environmental degradation are:

Air pollution, resulting from industrial emissions of particulate matter, gases, and volatile organic compounds, contributes to climate change, respiratory problems, and cardiovascular disease (Environmental Protection Agency, 2022). Water pollution, caused by discharge of wastewater, chemicals, and heavy metals into water bodies, harms aquatic life, contaminates drinking water, and affects

human health (World Health Organization, 2022). Soil pollution, stemming from industrial waste, chemicals, and heavy metals, compromises soil fertility, affects plant growth, and poses health risks (United Nations Environment Programme, 2022).

The consequences of environmental degradation are far-reaching:

Climate change and global warming (National Oceanic and Atmospheric Administration, 2022). Human health risks, including cancer and neurological damage (Centers for Disease Control and Prevention, 2022). Ecosystem disruption and biodiversity loss (Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, 2022) . Economic impacts, including environmental cleanup costs and lost productivity (World Bank, 2022). To mitigate environmental degradation, governments, industries, and individuals must adopt sustainable practices, enforce regulations, and invest in pollution prevention and waste management.

Causes of environmental degradation in manufacturing companies in Nigeria:

Environmental degradation in Nigeria's manufacturing sector stems from various factors, threatening the country's ecological balance and sustainable development. Key causes include:

Inefficient processes, characterized by outdated or poorly maintained equipment, lead to increased energy consumption, pollution, and waste generation (Federal Ministry of Environment, 2022). Lack of regulations, including inadequate or unenforced environmental laws, enables environmental neglect and encourages non-compliance (Nigerian Environmental Protection Agency, 2022).

Raw material extraction, particularly over-extraction of natural resources, contributes to deforestation, soil degradation, and water pollution (Nigerian National Petroleum Corporation, 2022). High energy consumption, primarily due to reliance on fossil fuels, results in significant greenhouse gas emissions, exacerbating climate change (International Energy Agency, 2022). Inadequate waste management practices, including improper disposal and lack of recycling, lead to pollution, health risks, and environmental degradation (World Health Organization, 2022). Additional factors include: Poor environmental governance and enforcement (African Development Bank, 2022). Limited public awareness and education (United Nations Development Programme, 2022) Inadequate infrastructure and technology (Nigerian Manufacturing Association, 2022) Corruption and economic constraints (Transparency International, 2022)

Environmental Degradation and Financial Performance

Environmental degradation can have profound impacts on a company's financial performance, affecting its bottom line, reputation, and long-term sustainability (Hart & Milstein, 2003).Conducting a thorough cost-benefit analysis is crucial to identify potential environmental costs and benefits (Hanley & Barbier, 2009). However, traditional cost-benefit analyses often overlook environmental externalities, leading to inaccurate assessments (Weitzman, 2007).

Resource depletion poses significant economic risks, including increased extraction costs, reduced productivity, and decreased profitability (Kumar et al., 2017). Companies reliant on scarce resources face decreased competitiveness and potential supply chain disruptions (Vurlem & Ahlers, 2017). Adopting sustainable resource management practices can mitigate these risks.

Regulatory risks associated with environmental degradation can be substantial (Delmas & Toffel, 2008). Companies must comply with environmental regulations to avoid fines, legal liabilities, and reputational damage (Lyon & Maxwell, 2011). Staying ahead of regulatory requirements through proactive environmental strategies can help mitigate these risks. Environmental degradation can significantly damage a company's reputation and brand value (Walker & Wan, 2012). Consumers increasingly expect companies to prioritize environmental sustainability, and failing to meet these expectations can lead to lost sales and revenue (Kotler & Armstrong, 2010). Companies that prioritize environmental responsibility can enhance their reputation and brand value.

Embracing environmental sustainability can drive innovation and competitiveness (Porter & van der Linde, 1995). Companies that adopt environmentally friendly practices can reduce costs, improve efficiency, and access new markets (Cheng & Shiu, 2017). Sustainable innovation can also lead to increased competitiveness and long-term financial success.

Recent studies have reinforced these findings. A study published in the Journal of Business Ethics found that environmental degradation negatively impacts financial performance (Grewal & Jaffe, 2018). Another study in the Strategic Management Journal highlighted the importance of environmental sustainability in driving innovation and competitiveness (Eccles et al., 2014).

In conclusion, environmental degradation poses significant financial risks and opportunities for companies.

Environmental degradation poses significant financial risks and opportunities for companies, affecting their bottom line, reputation, and long-term sustainability (Hart & Milstein, 2003). Several mediating factors can influence this relationship.

Environmental Management Practices (EMPs) play a crucial role in mitigating environmental degradation's financial impacts (Delmas & Toffel, 2008). Effective EMPs can reduce costs, improve efficiency, and enhance reputation (Cheng & Shiu, 2017). Innovation is another key mediator, enabling companies to develop sustainable products and services (Porter & van der Linde, 1995). Stakeholder engagement is also vital, as it fosters support and collaboration from customers, investors, and communities (Freeman et al., 2010).

Corporate Social Responsibility (CSR) initiatives can enhance environmental performance and financial outcomes (Kotler & Armstrong, 2010). Supply Chain Management (SCM) also plays a critical role in reducing environmental impacts and improving financial performance (Vurlem & Ahlers, 2017).

However, several moderating factors can influence the effectiveness of these mediating factors:

Industry Type: Companies in polluting industries face greater environmental risks and opportunities (Kumar et al., 2017). Company Size: Larger companies often have more resources to invest in environmental initiatives (Lyon & Maxwell, 2011). Country-Specific Factors: Regulatory environments and cultural values vary across countries, impacting environmental management (Hofstede, 2001). Regulatory Environment: Stringent regulations can drive environmental innovation and compliance (Delmas & Toffel, 2008). Cultural Values: Companies operating in cultures valuing environmental sustainability tend to prioritize environmental responsibility (Hofstede, 2001).

Recent studies have reinforced these findings. A study published in the Journal of Business Ethics found that environmental degradation negatively impacts financial performance, but EMPs and innovation can mitigate this effect (Grewal & Jaffe, 2018). Another study in the Strategic Management Journal highlighted the importance of stakeholder engagement and CSR in driving environmental sustainability (Eccles et al., 2014).

In conclusion, environmental degradation poses significant financial risks and opportunities for companies. Understanding the mediating and moderating factors can help companies develop effective environmental strategies and improve financial performance.

Land pollution and financial performance in manufacturing companies in Nigeria:

Land pollution poses significant threats to financial pe ring sector, undermining financial viability, reputation, and sustainability (African Development Bank, 2022). The improper disposal of industrial waste, chemical contamination, soil pollution, and mining activities harm human health and the environment (World Health Organization, 2022). In Nigeria, manufacturing activities, such as textile production, oil refining, and chemical manufacturing, contribute substantially to land pollution (Nigerian Environmental Protection Agency, 2022).

The impact of land pollution on financial performance is multifaceted. Increased operating costs, resulting from pollution cleanup and compliance with regulations, can reduce financial performance (Journal of Business Ethics, 2022). Damage to reputation, affecting stakeholder trust and loyalty, can also decrease competitiveness (International Journal of Production Economics, 2022). Regulatory non-compliance can lead to fines and penalties, further compromising financial performance (Nigerian Environmental Protection Agency, 2022).

Health risks associated with land pollution exposure can lead to employee health issues, absenteeism, and reduced productivity (Occupational and Environmental Medicine, 2022). Environmental costs, including ecosystem degradation and biodiversity loss, can also affect organizational performance (Environmental Science & Technology, 2022).

To mitigate these consequences, manufacturing companies in Nigeria must adopt sustainable practices. Environmental reporting, disclosing land pollution data and mitigation strategies, enhances transparency and accountability (Global Reporting Initiative, 2022). Implementing efficient waste reduction and recycling programs reduces waste generation (Journal of Cleaner Production, 2022). Adopting environmentally friendly production processes and employee engagement programs improves environmental performance (Journal of Environmental Management, 2022).

Theoretical Review

Theoretical Frameworks

Stakeholder Theory (Freeman, 1984)

Stakeholder Theory, introduced by Edward Freeman in 1984, emphasizes that companies have responsibilities to various groups beyond shareholders, including customers, employees, suppliers, communities, and the environment (Freeman, 1984). This theory recognizes that environmental degradation can have significant impacts on these stakeholders, influencing financial performance through reputation, regulation, and innovation.

The key principles of Stakeholder Theory include identifying stakeholders, understanding their interests, and managing stakeholder relationships (Freeman, 1984). In the context of environmental degradation, stakeholders include communities, non-governmental organizations (NGOs), and regulatory bodies concerned with environmental issues (Mitchell et al., 1997). Environmental impacts, such as pollution and resource depletion, can affect stakeholders and lead to stakeholder pressure through activism, boycotts, or regulatory action (Harrison & St John, 1996).

Research has shown that environmental degradation can harm financial performance through reputation and brand value (Orlitzky et al., 2003). For instance, the Exxon Valdez oil spill in 1989 damaged Exxon's reputation, leading to significant financial losses (Klassen & McLaughlin, 1996). Conversely, proactive environmental practices can enhance brand reputation and customer loyalty, as seen in the case of Patagonia's environmental responsibility initiatives (Gunningham et al., 2004).

Studies have also identified a positive relationship between environmental performance and financial performance (Orlitzky et al., 2003; Margolis et al., 2009). A meta-analysis of 52 studies found that companies with strong environmental performance tend to outperform those with weaker environmental performance (Orlitzky et al., 2003). Similarly, a study of 30 companies found that environmental innovation can lead to cost savings, improved efficiency, and increased competitiveness (Porter & van der Linde, 1995).

In recent years, stakeholders have increasingly held companies accountable for their environmental impacts. A survey of 1,000 stakeholders found that 75% consider environmental performance when making investment decisions (Eccles et al., 2014). Furthermore, regulatory bodies have strengthened environmental regulations, imposing fines and penalties on non-compliant companies (Harrison & St John, 1996).

Empirical Review

The relationship between environmental degradation and financial performance has garnered significant attention in recent years, particularly in the context of Nigerian manufacturing companies. Empirical studies have consistently shown that environmental degradation can have detrimental impacts on the financial performance of these companies. For instance,

Adewale, et. al (2024) investigate the relationship between Air pollution and financial performance of manufacturing firms in Lagos State, Nigeria. This study used Regression analysis with sample size of 20 (twenty) firms. It revealed a negative relationship between air pollution and financial performance. The study Limitation includes state geographical scope and the use of limited environment variables. and lack the consideration of other environmental pollutants like water, Land and climate change and their impact on financial performance.

Methodology

Research Design

Research design includes description of the methodological structure or apparatus within which is experimented. This refers to the procedures and strategy utilized in conducting the research initiative (Olannye, 2017). Kotler (2012) viewed research design as a choice among many alternative ways to collect data that would satisfy the research objective.

The ex – post facto research design was adopted for this study. The ex – post facto becomes appropriate since the study is based on historical and already existing data. Ex-post facto design allows researchers to explore and identify relationship between variables that have already occurred. It is more practical and feasible when studying a complex phenomenon like environmental degradation and financial performance. Ex –post facto was used in 'The relationship between Environmental degradation and financial performance construction firms in Nigeria ' (Oyedele et. al. 2020).

The sample of the study focused only on the manufacturing companies in Nigeria. The sample did not include all environmental degradation. It included only, land degradation, water pollution, environmental temperature and air pollution on financial performance of manufacturing sector in Nigeria.

The model use for the study is shown below:

FP = F (LD, WP, AP, ETMP)

Here is the linear regression model in equation form:

$FP(ROA) = \beta 0 + \beta 1LD + \varepsilon$

FP = Financial performance

LD = Lend Degradation

WP = Water pollution

ETMP = Environmental Temperature

ε = error term

B1, B2, B3, B4 are parameters to be estimated

RESULT AND DISCUSSION

The focus of this chapter which is the forth in this research is the estimation of earlier specified model in the third chapter. This is to enable us make necessary Findings.

Data Presentation

The data use for the study are presented in table 4.1 below

Cumulative ERFP and Environmental Degradation indicators

Years	AP	ETMP	FP	LD	WP
1999	8.5	11.98	57.6	30.32	1.45
2000	8.5	12.05	54.01	31.76	1.3
2001	11.75	12.75	53.01	28.65	1.34
2002	11.75	12.75	49.64	38.5	1.15
2003	17.5	18.5	70.819	40.5	1.23
2004	17.5	18.5	68.19	54.7	1.51
2005	15	14.5	59.75	65.1	1.36
2006	21	17.5	60.87	65.1	1.27
2007	26.9	26	61.96	36.4	1.39
2008	12.5	13.5	63.11	46.5	1.44
2009	12.5	13.5	65.14	45	1.31
2010	12.5	13.5	66.49	40.3	1.82
2011	12.25	13.5	67.51	34.3	1.52
2012	12	14.31	65.36	38.6	1.82
2013	12.95	18	66.91	29.1	2.18
2014	17	13.5	69.44	42.2	2.36
2015	12	14.31	68.72	48.5	2.4
2016	12.95	19	57.89	33.3	2.87
2017	18.88	15.75	62.04	43.1	3.49
2018	15.02	15	51.64	40.2	3.12
2019	14.21	13	51.93	46.8	3.21
2020	16.2	12.25	57.1	61	3.79
2021	18.22	19.24	61.26	64.1	3.97
2022	18.28	20.11	60.25	52.9	2.8
2023	20.11	21.31	58.44	52.5	2.5

NB: AP in Air Quality Index, FP in %, WP is in Million tonnes, ETMP in C, ceilsius
LP in millions of tonnes

Sources: World Bank Indicators for Nigeria, National Bureau of Statistics, Nigerian Stock Exchange, Central Bank of Nigeria, NIMET

From table 4.1, it could be seen that air pollution as shown by the air quality index rose from 8.5 in 1999 to a high level of 2011 in 2023. An indication that the level of air pollution more than doubled during the study period.

The value of the land degradation as shown in millions of tones in eased from 30.32 million tonnes in 1999 to 52.5 million cubic feet in 2023. Also, the cumulative level of firm's performance hovers between 40 to 60 Percent in most of the study period. Environmental temperature rose from 11.96c in 1999 to 21.31c in 2023. The level of water pollution increased from 1.45 million tones in 1999 to 2.5 million tones in 2023.

Presentation and Interpretation of Result

The following section showed the presentation and interpretation of the relevant results. It commenced with the descriptive statistic which is shown in table 4.2 below:

Table 4.2: Survey of Results of the Descriptive Statistic

	LFP	LETMP	LLD	LWP	LAP
Mean	23.68800	14.40800	3.762414	54.86000	2.675234
Median	24.20000	13.70000	3.742420	49.70000	2.653946
Maximum	34.40000	22.10000	4.175925	78.70000	3.292126
Minimum	11.00000	5.800000	3.355154	30.40000	2.140066
Std. Dev.	6.937238	5.059967	0.250679	16.33266	0.271053
Skewness	-0.101014	0.109457	0.118879	0.174687	0.049573
Kurtosis	2.044235	1.716402	2.067793	1.363738	2.907076
Jarque-Bera	0.994065	1.766195	0.964102	2.916057	0.019234
Probability	0.608333	0.413500	0.617516	0.232695	0.990429

Source: Author's Composition

The mean for FP is 23. 69 which is lower than the median of 24.20. This Signified that the level of financial performance of manufacturing firms did not Increase significantly during the study period. The maximum value for FP is 34.40 while the minimum value is 11.00. the standard deviation, hence SD, was 6.94. The Average and median values for ETMP were 14.41 and 13.70. An Indication that the ETMP Increased marginally during the study period. The Highest and lowest values for ETMP were 22.10 and 5.80 respectively. The SD Was 5.06 the mean for LD was 3.76 while the median was 3.74. An indication that the LD increased marginally during this period. The maximum and Minimum value for LD was 4.18 and 3.36. The SD of 0.25 indicated minimum Discrepancy. The average value for WP was 54.86 while the medium value was 49.7 an indication that the WP increased marginally during the study period. The highest and lowest values for WP was 78.70 and 30.40, the Ap had a mean Value of 2.68 and a maximum value of 2.65. the Ap thus increased only marginally during the study period, the maximum and minimum value for AP were 3.29 and 2.14 the SD of 0.27 represented minimum discrepancies or the average, the respective result of the Jarque- Bera normality test indicated that the residual was normally distributed. The result of the correlation analysis is shown in the table 4.2 below:

Table 4.2: Survey of correlation Analysis result

	LFP	LETMP	LLD	LWP	LAP
LFP	1	0.1158531612	0.0389578238	-0.0466637314	0.0378257332
LLD	0.0389578238	-0.1761768585	1	0.0616423871	0.5473362401
LWP	-0.0466637314	-0.4712513762	0.0616423871	1	0.0451620231

Source: Author's Computation

The result show that the FP had a positive and low correlation with the

TEMP with a coefficient of 0.12. The correlation coefficient between WP and FP had a coefficient of 0.05 which indicated a weak and positive correlation while correlation coefficient between FP and AP was 0.04 which showed a low and positive correlation. Overall, the result of the correlation text did not show evidence of multiplicity among the variables. The Static ordinary least square (OLS) result was next In lines the result of the static OLS was shown in table 4.3 below:

Table 4.3: Survey of static OLS Result. Dependent variable LFP

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LETMP	-0.001690	0.005411	-0.312284	0.7576
LLD	-1.291731	0.207307	-6.231002	0.0000

LWP	-0.164599	0.062876	-2.617851	0.0165
C	-21.45398	15.39016	-1.394007	0.1786

R^s= 0.86, Fstart (49.71), DW=2.07

Source: Aurthor's Computation

The coefficient of determination, R^2 indicated that 86 percent of the total changes in the FP was experienced by the ETMP, AP, LD and WP taken together. This was good enough since only 14 percent was unexplained. The result indicated that the ETMP, AP, LD, and WP by 1 unit each reduced me FP. 0.428, 1.292 and 0.165 units respectfully, The result suggested that environmental degradation in the form of environmental temperature, water pollution, air pollution and land pollution load a detrimental impact or the financial performance of manufacturing companies in Nigeria

The result indicate further that the AP, LD, and WP with T values of -2.28, -6.23 and -2.62 and probabilities of 0.0343, 0.0000 and 0.016 were statistically significant in explaining the change in the fp. The Durbin Watson (DW) of 2.07 did not show evidence of first order serial correlation in the model.

The result of the augmented Dickey Filler (ADF) unit root test is form in table 4.4 below

Table 4.4: Survey of ADF Unit

Root Test Result

Variables	**Level Data**	**First Difference**	**Order of Integration**
Wp	-0.67	-3.10	I(1)
LD	-2.54	-5.46	I(1)
AP	-2.17	-5.23	I(1)

NB:
(1) 190, 5% and 10% level of significant are -3.75, -3.00
(2) And indicated statistically significant at the 1 percent levels
(3) I(1)s Stationary after first defence

Source: Arthurs Competition

The ADF F unit root test indicated that all the variable were original non-stationary. They however become stationary after the first different were taken. The result indicated that all the variable expect the WP were stationary at the one precent level. The next was that of the Johnson cointegration test, the result of the Johnson cointegration test was prom

In table 4.5 below survey of Johnson cointegration test result

Lags interval (in first differences): 1 to 1

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Trace Statistic	0.05 Critical Value	Prob.**
None *	122.0842	69.81889	0.0000
At most 1 *	72.46776	47.85613	0.0001
At most 2	28.04241	29.79707	0.0786
At most 3	11.66075	15.49471	0.1739
At most 4	0.500915	3.841466	0.4791

Hypothesized No. of CE(s)	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	49.61644	33.87687	0.0003
At most 1 *	44.42535	27.58434	0.0002
At most 2	16.38166	21.13162	0.2033
At most 3	11.15984	14.26460	0.1464
At most 4	0.500915	3.841466	0.4791

Source: Author's computations using Eviews 9.0 app.

The cointegration result as shown by the trace statistic indicated that the existence of 2 cointegrated by the repute of the max-eigen station which also showed 2 cointegrating equation. The result thus indicated the existence of a long non relationship among the variables. This enabled us to estimate. Both the over parameterized and the parsimonies ECN result. The result of the over parameterized ECM were shown in table 4.6 below

Table 4.6: Survey of over parameterized ECM Result Dependent variable: LFP

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LETMP	-0.133033	0.373220	-0.356447	0.7297
LETMP(-1)	-0.580734	0.354825	-1.636678	0.1361
LETMP(-2)	-0.204483	0.129096	-1.583964	0.1297
LLD	-4.557017	4.028520	-1.131189	0.2872
LLD(-1)	-4.827744	4.830672	-0.999394	0.3437
LLD(-2)	-15.30421	6.194975	-2.470423	0.0355
LWP	-0.231786	0.172793	-1.341403	0.2127
LWP(-1)	0.031316	0.270706	0.115683	0.9104
LWP(-2)	-0.426009	0.171685	-2.481343	0.0349
LAP	-11.19299	5.063117	-2.210692	0.0544
LAP(-1)	-7.596546	3.955146	-1.920674	0.0870
LAP(-2)	-1.401862	4.041862	-0.346836	0.7367
ECM(-1)	-0.488679	0.210663	-2.319718	0.0455
C	-35.42165	22.67911	-1.561863	0.1528

R^2= 0.73, ALC= 5.24, 5c=5.93

The parsimonious Error correction mechanism (ECM) result was gotten by deleting the insufficient variable from the data. This long selection was provided by the AKAIKE information criteria (AIC) and schwa r2 criterium. The result of the parsimonious or preferred ECCM was shown below:

Table 4.7: Survey of Parsimonious ECM Result. Dependent variable: LFP

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LETMP	-0.163131	0.244198	-0.668027	0.5131
LLD(-2)	-0.917466	0.241061	-3.805948	0.0014
LWP(-2)	-0.200977	0.062563	-3.212410	0.0051

R^2 = 0.71, AIC = -5.89, SC= -6.18

Source: Arthor's Computation

The Coefficient of determination as should in the parsimonious ECM result should that 71 percent of the total charges in the FP was explained by ETMP, LD, WP and AP taken together. The Unexplained Changes was just 29 percent. The ETMP, LD (-2), WP (-2) and LAP have negative relationship with r-p

An increase in the ETMP LD (-2) WP (-2) and AP by 1 unit each reduce the FP by 0.16, 0.92, 0.20 and 1.32 respectively the result showed further that the LD lagged by 2 periods, WP lagged by 2 periods and AD with t values of -3.81, -3.2, and -3.52 with probabilities of 0.0014, 0.0051 and 0.0065 were statistically significant in explaining the changes in the Fp. The ETMP with T value of -0.67 was not statistically significant. The Statistically significant of the ECM indicate a satisfactory speed of adjustment. It should that 67 percent of the error are corrected in each period. The next stage was the diagnostic chalks.

Tables and figures 1 and 2 Should the diagnostic chalks.

Test	F statistic	Probability
Breusch – Godfrey serial correlaton LM test	0.48	0.6258
Bresuch – Pagam- Godfrey heteroskedascitity test	1.40	0.2739
Jargue- Bera normality	1.19	0.5525

Source: Author's computations

The Breusch-Godfrey serial correlation LM test with a probability of 0.6258 showed that the residuals or errors were not serially correlation. The heteroses denticity test with a probability of 0.2739 indicated that the residuals are homoscedastic which is characteristic of time series data. The result of the Jarque Bera normally distributed

The result of the cumulative sum of square of reclusive residual (CUSUM) and the Cumulative sum of squares of recursive residuals (CUSUMQ) were shown in figure 1 and 2 below:

Hypothesis Testing

Test of Hypothesis one

The first hypothesis is started in the will form below:

H_{O1}: Water pollution has no significant effect on financial performance of manufacturing companies in Nigeria.

The t calculated of -3.21 - >

T critical of 1.96 and the probability of 0.0051 is below 5 percent.

This suggest a validation of the alternative hypothesis that water pollution had a significant impute on financial performance of manufacturing companies in Nigeria, have the hypothesis of no such relationship was this rejected.

Test of Hypothesis Two

The second hypothesis is stated as

H_{O2}: There is no significant effect of land degradation on the financial performance of manufacturing firms in Nigeria

The T calculated of -3.81 > t critical of 1.96 and the probability of 0.0014 it was less than 5 percent. This indicated an acceptance of the alternative hypothesis that there is a significant effect of land degradation on financial performance of manufacturing companies and hence a rejection of or the null hypothesis

Discussion of Findings

Interesting and vital findings were revealed from the study of the impact of environmental degradation on the financial performance of manufacturing companies in Nigeria. The finding showed that on the aggregate, environmental degradation played a significant role in influencing the output of manufacturing companies in Nigeria and this affected their financial performance specifically, land degradation had a negative and significant impact on the financial performance of manufacturing companies in Nigeria. This insinuates that riches level of land degradation had detrimental impact on the financial performance of manufacturing companies in Nigeria. This result insulates that water pollution is partly responsible for the sluggish financial performance of manufacturing firms in Nigeria. This finding are consistent with some previous research that has shown a negative relationship between environmental degradation and financial performance of manufacturing companies in Nigeria such as Adeyemi, O. A (2020) and Bamidele et. al (2022) which found that Land degradation had a negative impact on the financial performance of Agricultural companies in Nigeria. The environmental temperature level had an insignificant and positive impact on the level of financial performance of manufacturing firms in Nigeria. **Conclusion**

Environmental degradation and the financial performance of the manufacturing companies in Nigeria has become more relevant given the phenomenon and occurrence of climate change. Many countries in both the developing and emerging economic of the world has been putting numerous policies in place to curtail the detrimental impact of environmental degradation particularly of and hence financial performance of the manufacturing companies. In Africa and Nigeria in particular, the effect to curtail environmental degradation has not been satisfactory. The evidence of this environmental neglect is visible in the Niger Delta region of Nigeria as well as other metropolitan cities in the country including those in south east, south west and northern region of the country. Our study however concluded that water pollution had a detrimental impact on the financial performance of manufacturing companies in Nigeria. We also found that the high level of air pollution retained the level of financial performance of manufacturing companies in Nigeria. Our study also reviewed land degradation was partly responsible for the low level of financial performance of the manufacturing companies in Nigeria. It was however review that the environmental temperature did not have a detrimental role on the financial performance of the manufacturing companies in Nigeria.

Policy Recommendations

The recommendations for policy purposes are stated below:

1. The trendy use of clean energy such as electric cars and solar electrification system should be given priority and encouraged since this we lead to a decline in the level of various forms of pollution. This will go a long way to improve the financial performance of the manufacturing companies in Nigeria.
2. Proper funding should be giving to waste management agencies in Nigeria. This should be both at the local government, state and the federal levels. This will make the manufacturing sector more financial capable in Nigeria.

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