



Green human resource planning and organizational performance of plastic manufacturing firms in South-East, Nigeria

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Abstract: The study investigated the green human resource planning and organizational performance of plastic manufacturing firms in South-East, Nigeria. Specifically, the study has two objectives and two hypotheses. Relevant conceptual, theoretical and empirical literature were reviewed taking into cognizance problem and the hypotheses of the study. Anchored on Resource-Based Theory, this descriptive study conducted in South-East, Nigeria, utilized data from primary and secondary sources to study a population of 1929 employees from Plastic Manufacturing Firms. A sample size of 371 was determined using the Borg and Gall formula, and data was collected via a questionnaire whose validity was ensured through face and content validity, and whose reliability was established using the test-retest method and Cronbach's Alpha, prior to testing the hypotheses with Linear Regression Analysis. Green training and development had a positive significant effect on operational performance of plastic manufacturing firms ($\beta = .243$, $t = 4.699$, $p=0.000<0.05$). Green culture practices had a positive significant effect on environmental performance of plastic manufacturing firms. ($\beta = .164$, $t = 4.163$, $p=0.001<0.05$) and green recruitment had a positive significant effect on product performance of plastic manufacturing firms in South-East, Nigeria. ($\beta = .178$, $t = -3.120$, $p=0.000<0.05$). The study concluded that green human resources planning had a positive significant effect on organizational performance of plastic manufacturing firms in South-East, Nigeria. Plastic firms must adopt green training, focusing on emission control to enhance sustainability and operational performance. A strong pro-environmental culture is essential for success.

Keywords: *Green HR Planning, Plastic Manufacturers, Organizational Performance, Sustainable Operations, Environmental Culture.*

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Introduction

The plastic production sector in South-East Nigeria is a key industry that is environmentally contentious though also produces an enormous amount of plastic waste and pollution. Given increasing environmental pressures, regulatory requirements and changing stakeholder demands, the use of green practices is now a strategic need. Green Human Resource Management (GHRM) is a paradigm shift to consider environmental issues in the HRM context, as the objective to manage environmental issues within its HR activities like hiring, training, performance, and compensation (Ahmad, 2015). In this framework, GHRP acts as a proactive (futuristic) process for aligning human capital with sustainability goals. Despite the increased global attention to GHRM, the practical implementation, and the importance of strategic green HR planning, has not been thoroughly researched in the case of Nigeria's plastic manufacturing industry. This type of sector is governed by a particular socio-economic, regulatory framework with infrastructural limitations, informal waste management systems, and evolving national policies on extended producer

responsibility. An understanding of how GHRP is conceived and implemented in these companies is crucial to evaluate the extent to which it is driving environmental and operational gain (Opata & Arulrajah, 2014).

Several studies suggest that an organization's environmental and pro-sustainability initiatives hinge on its human resource planning, environmental awareness, and the presence of specified green competencies that support value creation. Subsequently we argue that the implementation of organizational planning to go green and manage environmental performance depends largely upon human resources across functions doubling with greater alliance with human resource planning system, processes and procurements to effectively implement, manage and evaluate the employees (Jabbour, 2023; Tang et al., 2018). Green practices, GHRM, green management, and green values have become topics of choice for organizations, their mechanisms, and practitioners. Many organizations are fostering improved cultures of diligence, commitment, and accountability towards the consumers, the external environment, and shareholders (Renwick et al., 2016). This trend has prompted international groups to press firms on

environmental agendas by highlighting resource depletion and advocating for positive impacts. Over the past 20 years, there has been a greater consensus in Nigeria on the need for organizational sustainability through environmental management. With the corporate environment evolving, the requirement for green human resource planning has emerged as one of the corporate organizations' main tactical maneuvers in transforming to be pro-environmental (Renwick et al., 2016). Organizations today receive enhanced stakeholder pressure to ensure sustainable practices beyond regulatory adherence. As a result, studies demonstrate that performance through green HR planning is considered a crucial factor for competitive advantage (Daily & Huang, 2001; Jackson et al., 2021). The challenges to human resource planning (HRP) are profound, given uncertain future context, business strategy change, and a lack of precision, making forecasting of future workforce requirements more difficult (Cascio & Boudreau, 2016). A primary obstacle is the unpredictable nature of business environments, where economic shifts and market changes can rapidly alter workforce requirements. Furthermore, frequent changes in organizational strategy can disrupt the alignment between HRP and business objectives (Wright & Snell, 2021). The process is also hindered by insufficient data, leading to flawed forecasts. Simultaneously, rapid technological advancements continuously alter skill demands, making it difficult for organizations to identify future skill gaps, while globalization adds another layer of complexity to workforce planning (Bondarouk et al., 2017).

The adoption of green human resource planning (GHRP) promises diverse advantages, leading to a "green and competitive" mantra through improved operational performance and the promotion of teamwork (Renwick et al., 2016; Roscoe et al., 2019). However, the realities of business practice reveal significant uncertainty and debate surrounding GHRP principles (Jackson et al., 2021). Key challenges include a lack of synchronization with overall management strategy, and a failure to adapt GHRP principles to core HR functions like recruitment, training, and reward systems (Haddock-Millar et al., 2016). These implementation problems have contributed to the low adoption of green practices, particularly within the manufacturing sector (Masri & Jaaron, 2017), resulting in a persistent gap between GHRM theory and practice.

The theoretical, practical and policy implications of this study are significant. Theoretically, it bridges the gap between GHRM and its contemporary application since it explores the role of green human resource planning, a less-researched subdimension, in a high-impact industrial setting in a developing economy. It tests, and perhaps expands, frameworks connecting strategic green HR alignment with organizational performance results, providing context in ways that may differ from Western paradigms. In practical terms, the results of the study will provide the plastic manufacturing firms in South-East Nigeria with evidence-based guidance on how they may introduce sustainability as part of labor strategic planning from a systematic approach. The objective of this study is to evaluate the impact of GHRP on organizational performance of plastic manufacturing firms in South-East, Nigeria; as stated in the objective section, in order to ascertain the specific objectives of the study are: 1) To study the influence of green training practices on operational performance of plastic manufacturing companies in South-East, Nigeria. (2) To the degree, the role of green culture practices on the environmental performance of plastic manufacturing companies in South-East, Nigeria. The null hypotheses described below were developed with regard to the purpose of the research which will be tested for significance at 0.05. Ho: Green training and development activities

has no significant influence on the operational performance from plastic factories in South-East, Nigeria. Ho1: Green culture practices have no significant effect on the environmental performance of plastic manufacturing firms in South-East, Nigeria.

Review of related literature

Conceptual Review

1. Green Human Resource Planning

Under new millennium, a forward-looking corporate response to environmental concerns was developed which could address the extent of pollution as well as mitigate negative environmental impacts (Renwick et al., 2016). In the modern strategic approach, companies incorporate corporate goals with environmental and social goals (Eccles et al., 2014). This combination is informed by the Triple Bottom Line thinking that the success of companies will continue to depend upon the combination of economic, social and environmental performance. Furthermore, institutional and stakeholder pressures are key drivers compelling organizations to respond to these environmental imperatives (Bansal & Roth, 2000). Environmental performance is intrinsically linked to human resource planning, as the HR function is the organization's lifeblood and is essential for the successful integration of environmental management practices (Renwick et al., 2016). Universal environmental concern compels organizations to adopt green human resource planning (GHRP) practices, in order to promote employee pro-environmental behavior. Renwick et al. (2016) define GHRP as human resource planning activities that suggest possible positive environmental outcomes. It utilizes the workforce to implement eco-friendly changes, aiming to achieve environmental performance, waste reduction, social responsibility, and a competitive advantage through continuous learning, development, and the integration of ecological goals with core organizational strategies.

HRP can measure and influence employees' environmentally-related behavior, attitudes, knowledge, and motivation. Therefore, organizations should deploy human resource planning to effectively implement and execute eco-friendly policies (Jabbour, 2023). Following that, pro-environmental behaviors are required, including shareholders' and/or stakeholders' commitment, internal organizational and supervisory support, and HR practices, as well as general creativity and innovation (Provasnek et al., 2017). Green human resource planning is the use of environmental planning, procedures, nonfinancial principles and theories for the processing, management and use of human resources. The meaning of green human resource planning may vary among individuals. For example, Shah (2019) conceptualizes green human planning as the practice initiated by management to reduce or remove the pollutants from factory or household premises, as well as to enhance energy effectiveness and efficiency. In a similar perspective, Mwita (2019) says that green human resource planning is the activities of human resource planning policies and practices to improve organizational environmental performance and sustain organizational behavior by minimizing carbon footprint.

2. Green Training

Green training and development are a scheme that aims to foster employees' acquisition of environmental protection skills and environmental issues, aiming, in turn, to understand and harmonize the competing interests of the different policy makers and shareholders, through a common commitment to green planning, policies and decisions. Green training can improve the awareness,

attitude, knowledge and skills of employees in environmental activities (Sammalisto & Brorson, 2018), and Green training should be offered along with other education programs to all members of the organization, not only those linked with environmental departments. Green training will enhance employees' interest, zeal and awareness of environmental activities in the workplace. Green education initiatives assist employees in understanding the fundamental nature of environmental protection.

3. Green Culture Practices

Green culture refers to the lifestyle of mankind where people make intentional choices about how they use their resources in order to reduce consumption including green and recycled materials as noted by Howard-Grenville et al. (2021). Green culture promotes recycled paper, biodegradable products and discourages single-use plastics and harmful chemicals. In the context of this study, green culture stands for those practices which business organizations should adopt in the course of their business operations that are environmentally friendly, reduce wastage, and be less harmful to the society (Scherbaum et al., 2018).

4. Organizational Performance

Managers have had to know how to initiate them properly, which factors are affecting the performance of an organization. However, researchers have conflicting viewpoints towards performance in organizational research, a matter of contention among organizational researchers (Barney, 2019). Still, as outlined by Daft (2019), organizational performance is the degree to which a firm is able to reach its objectives, through efficient and effective use of resources. Heffernan & Flood (2000) observed that in terms of a 'modern' framework to performance management, organizational performance was confronted with multiple issues of conceptual clarity. For years, management scholars have maintained that performance management must be a strategic process that connects measurable objectives to human resources processes that foster employee ability. This could mean a coupling of performance appraisals with development practices like coaching, training, leadership programs, in order to develop the skills and behaviors that are needed (DeNisi & Smith, 2014). Performance can be understood in both quantitative and qualitative terms so a holistic dimension of effectiveness, efficiency, economy, and equity, commonly known as the "4 E's" of performance measurement (Poister, 2003), can be integrated into performance measurement strategies. Thus, organizational performance can be defined as the measurement of a company's performance using both monetary and non-monetary performance indicators. Organizational performance covers the aspects of strategic planning, operations, financial, legal, and organizational development. When there is role clarity for employees in an organization and regular communication with management and staff for planning and assessment performance expectations, employees are more apt to accomplish the goals they seek. Goal-setting theory (Locke & Latham, 2002) underpins this fundamental management concept, serving as a key mediator between HR practices and organizational performance (Katou, 2017).

5. Operational Performance

Organizational operational performance is concerned with objective indicators, specifically customer satisfaction and loyalty, where firm's social capital and competitive advantage, determined by ability and assets of the organization, is concerned with observable measures, such as customer satisfaction and loyalty which are derived from firms social capital of the enterprises and competitive edge that derive from their resources and capabilities

as well as their resource-based advantage over other organizations. Operational Performance: a measure of performance of an organization against agreed or preferred performance and/or standard targets including cycle time, productivity, waste reduction, and regulatory compliance. (Voss et al., 2017)

6. Environmental Performance.

Environmental performance is the term used to describe the way business success metrics, including both financial (profitability, return on investment (ROI)) and the environmental and social aspects of performance, measure business as well. Economic Performance means addressing the needs of today without compromising future needs, emphasizing intergenerational equity. This includes individual agency – the way in which countries and policies can shape their performance in the face of large external forces (Elkington, 1997). It is a well-defined set of social values and goals through which governments, businesses, and individuals can achieve maximum advantage. Green planning for our next generation avoids short-term presentism and future-harming to both our collective future and those tomorrows still to come. The highest inertia of Human Resource planning for integrating Environmental Performance into the organization's area of seeking prosperity is found in Human Resource planning. Environmental performance principles are reflected within Human Resource Planning systems tailored to create and implement the sustaining and promoting the long-term economic, physical, and social well-being of the workforce in the organization, a foundational concept in the Sustainable Human Resource Management paradigm (Ehnert et al., 2014).

Theoretical Framework

Many theories and models have been improved due to the quest of green human resource planning practices. So, the study is based on the theory of Green Human Resource Management viz the Resource based view theory (Barney 1991).

1. Resource Based View Theory

To first advocate Resource Based View (RBV), Penrose (1959) stated that performance is higher in companies that have resources in control of the firm. (Wernerfelt, 1984), how a firm controls key resources will determine its performance. RBV emphasizes the characteristics of internal resources and capabilities of the firm and describes the internal resources and capabilities as the essential contributors to heterogeneity, long-term competitive advantage and/or long-term performance (Barney, 1991). Collis & Montgomery (1995) contend that in a competitive marketplace, the strategy of the firm needs to be fundamentally rooted in its unique bundle of resources. Because sustainable advantage cannot just be obtained by having a resource, but a firm's ability to choose, organize and apply it in a manner that is valuable, rare and challenging for rivals to imitate or replace. The RBV proposes that each firm is endowed with a particular and diverse bundle of tangible but also intangible resources (Barney & Hesterly, 2019). The initial contribution to the VRIN theory came from Jay B. Barney (1991) who developed the VRIN criteria along with the identification criteria was the determination of how these firm-specific resources can contribute to better performance and sustainable competitive advantage. Based on RBV theory, people are driven to optimally use economic resources and all rational and appropriate choices made by an economic framework that affect the economic status of the firm are guided by the economic resources (Barney, 1991). By reference to this research, Resource Based View theory has been used to an analysis and explanation of

the resources and capabilities of organization which could facilitate and preserve a firm's advantage and thus perform well.

Ability-Motivation-Opportunity Theory

The influence of Green Human resource planning on Environmental Performance in relation with stakeholders can be analyzed from an ability-motivation opportunity theory (AMO) viewpoint. According to the AMO theory, we could consider the Green human resource planning considering Green training, Green employee's motivation, and Green employee involvement which are three practices related to human resource planning. The impact Human Resource Planning can have on Environmental performance through Green employee ability, Green selecting and training high functioning employees and improving them; Green employee "motivation"(M) can promote participation, commitment through green programmes and offer opportunities for employees and stakeholders to contribute to environmental management initiatives (Renwick et al., 2016). Green Training is required for effective employees to integrate and collaborate with stakeholders, suppliers and customers. However, training can raise commitment level (Haddock-Millar et al., 2016). Green training is frequently not enough to promote pro-environmental behaviors on its own. Training, in order to generate motivation and engagement, needs to be accompanied by positive motivational interventions like eco-oriented performance appraisal and the creation of conditions which enable job-based behavior to flourish, with motivation as such managerial inducement, and the perceived ease of engaging in green tasks (Bos-Nehles et al., 2017). Green human resource planning takes importance in the context of a theoretical framework that considers its impact on environmental productivity.

AMO permits us to include three key Green Human Resource Planning factors by putting them into one composite construct: it is significantly distinct from all the existing literature relating to one particular Green Human Resource Planning factor (that is Green training) (Jabbour, 2023). AMO position about green human resource planning assumes having some unit of measurement that connects the ability, motivation and opportunity dimensions; dividing AMO factors into a number of constructs in an analysis model will lead to an incorrect answer about the impact of their influence on employees' role in environmental performance initiatives (Renwick et al., 2016). Based on the Resource based view theory, we adopted the theory of AMO and we used it to analyze the Human Resource Planning Link which means that the employee's abilities, motivations, interests, and opportunities enhance organization performance; this is a fusion based view which explains how and why shareholder Leaders and Strategic Human Resource Planning Practices promote Organization Performance (Appelbaum et al., 2000). Ability- Motivation-

Opportunity AMO is often used in the Human Resource Planning Performance studies.

Still, Ability-Motivation-Opportunity theory, Human Resource Planning practices influence the ability of employees (recruitment/selection, training/development), motivation (rewards, incentive, and compensation), and opportunity (teamwork, empowerment) for contributing to Organization's performance (Lopez, 2016). Recently we applied ability motivation opportunity theory selectively rather than emphasis on employee's job attitudes and behavior from introduction of Human Resource Planning Practices (Guest, 2021) we observed shareholders / production manager's ability, motivation and opportunity will influence link between Human Resource Planning innovation-performance. Therefore, AMO theory as per an examination suggests that Green Human Resource Planning Practices in Organizations is to attract, motivate, reward and maintain employee job behavior relating environment Performance goals and objectives and objectives through the Green Planning, Green initiatives, Green process and Green product innovation towards the superior green economic performance of the organization (Boselie et al., 2005). Based on the Ability Motivation Opportunity theory, green human resource planning assists organizations with a complex architecture through its Green recruitment/selection, Green training and development, performance based rewards, employee empowerment practices, etc. Thus, this will make the firms to implement green human resource planning practices to keep their operations on their toes and enhance the performance of their organizations from green economic performance. to attract, train, motivate, and retain green human talent for enhancing green firm performance through continuous eco innovations in principles, process, procedures, products and service (Lopez, 2016).

Methodology

Research Design

The descriptive survey research design was adopted in this study. Research design is the plan and structure of investigation so conceived as to obtain answers to research questions. The plan is the overall scheme or program of the research. Descriptive research portrays an accurate profile of persons, events, or situations. Descriptive research design is deemed fit for this study since it allowed the collection of data from a sizable population in a highly economical way.

Population of the Study

The population for study is the list of all elements or objects of a well-defined group being studied (Olannye, 2017). The population of this study consist of the 25 selected plastic manufacturing firms in South-East Nigeria.

Table 3.1 Population Distribution of the Select

S/ N	Manufacturing Firms	Number of Employees
ANAMBRA STATE		
1.	Ocean Plastics Industries Ltd	240
2.	Dozzy Plastics Industrial Layout, Onitsha,	125
3	Obike Basic Plastic Industries Ltd, Onitsha	110
4	Syndivel Plastic Industries Nigeria Ltd, Onitsha	122
5	Silas Polyplastic International Ltd,Onitsha	114
ABIA STATE		

6	Double Diamond Plastic Company, Ltd Aba	89
7	Eagle Star Plastics Ltd Aba	92
8	Mikko Plastics Ltd Aba Aba	105
9	Ceeplast Industries Limited Aba	87
10	Aku Plastics Industries Ltd Aba	142
	EBONYI STATE	
11	Onyekaokwu Plastics Enterprises Nig Abakaliki.	116
12	Jovic Plastic Company Abakaliki.	80
13	Goodluck Plastic Industry LTD, Abakaliki.	125
14	Best Plastic Enterprises Ltd Abakaliki.	101
15	Big brother Plastics, Abakaliki.	64
	ENUGU STATE	
16	Riveroak Plastics	45
17	Eastern Plastics Ltd	102
18	Jonabon Plastics & Allied Products Ltd.	60
19	Quantum Plastic Nigeria Limited	72
20	Innopack Plastics Ltd	62
	IMO STATE	
21	Adanna Plastic Industries.	54
22	Ekeoma Iwufiy Plastic Nig Ltd	92
23	Mario Plastics Limited	84
24	Reliable Steel & Plastic Industries Limited	65
25	Akunex Plastic Industries Limited	51
	Total	1929

Sources: Personal Department of Each Plastics Industry (2025)

Determination of Sample Size

The sample size for this study was calculated by using a formula given by Borg and Gall, which reads:

$n = (2a x)2 (e) [N]$ where:

n = sample size to be obtained

$2(ax)$ = confidence level (1.960) at 0.05

e = error margin (0.05)

N = Population of interest (1929)

a = level of significance

Consequently, $n = (1.960)^2 (0.05) [1929]$

$n = 370.5 = 371$

Therefore the sample size becomes 371. Data was collected from both primary and secondary sources by the researcher. They used

structured questionnaire as primary sources, then textbooks, published journals and company bulletin as secondary sources.

Results and discussion

Data generated from the sampled of plastic firms in South-East, Nigeria were presented, analyzed and interpreted. 371 questionnaire was distributed but 350 came back and that was used for the analysis. 21 was missing, some mutilated others not retrieved

Testing of hypotheses

Hypotheses testing is performed to determine the authenticity or negativity of the assumption or claims made by the researcher before the actual investigation was carried out, the statistical tool adopted for testing the hypothesis formulated for the study is Linear Regression Analysis.

Test of hypothesis one

Table 1: Test of significance of simple regression analysis on the effect of green training and development on operational performance of plastic manufacturing firms in southeast, Nigeria

Predictor	B	SE B	B	t	p-value	Decision
Operational Performance	176	.052				

Green Training and Development	243		243	4.699	.000	Significant
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Table 1 shows the unstandardized beta coefficient of .243 and a standardized of .052 for the simple regression model on the effect of green training and development on operational performance. These values show that a unit increase in green training and development leads to .243 increase in operational performance or .176 standard deviation units increase in operational. These values were statistically significant, $t = 4.699$, $p=0.000 < 0.05$. Since the p-value was less than 0.05, the null hypothesis was rejected. This implies that green training and development had a positive significant effect on operational performance of plastic manufacturing firms in South-East, Nigeria. The result of the first hypothesis revealed that green training and development had a positive significant effect on operational performance of plastic manufacturing firms in South-East, Nigeria. The result was in line with the findings of Zaid et al., (2018), who found green training had a positive influence on operational performance. Consequently, green training will upgrade operational performance of employees, encourage their environmental intuition and awareness, compel their intuition initiatives and pro-activeness for green innovation, and imbibe positive operational commitment, transcending to the upgrade of operational performance.

Table 2: Test of Significance of Simple Regression Analysis on the effect of Green culture practices on environmental performance of plastic firms in South East, Nigeria

Variable	B	SE B	B	t	p-value	Decision
Environmental Performance	.243	.075	.164			
				4.163	.001	Significant
Green Culture Practices	.261	.076	.180			

Table 2. Demonstrates that, for green culture practices, the unstandardized of .243 and standardized beta coefficient (β) of .164 were statistically significant, $t = 4.163$, $p=0.001 < 0.05$. Similarly, for the environmental performance, the unstandardized and standardized beta coefficients of .261 and .171 were statistically significant, $t = 4.163$, $p=0.001 < 0.05$. Hence the null hypothesis was rejected since the p-values were less than 0.05. In this respect, it shows that Green culture practices positively significantly had an impact on environmental performance of plastic manufacturing firms in South-East Nigeria. Result for hypothesis two showed that green culture practices had a positive significant effect on environmental performance of plastic manufacturing firms in South-East Nigeria. Tang et al., (2018) confirmed the results in their work and as did Dubey et al., (2022).

A regression analysis reveals significant and positive associations with environmental performance ($\beta = .164$, $B = .243$, $t = 4.163$, $p = .001$) that resonates with more general empirical evidence that demonstrates the translation of green HRM and operational strategy into measurable environmental outcomes from an embedded green organizational culture. Positive green culture contributes to common values, routines, and managerial cues which facilitate employees' proactive environmental behaviors and facilitate the spread of green innovations — aspects that account for the fact that firms with a strong green culture perform better on criteria for waste reduction, emissions control, and compliance metrics (Fang et al., 2022). In application, then, your significance of coefficients is a matter of statistical significance, but more significantly, of organizational processes whereby culture

Furthermore, the significant positive impact of green training and development on operational performance found in this study corresponds to the empirical evidence that investing in employee environmental skills boosts various facets of firm performance. Green training programs help employees become proficient in the application of sustainable practices, which not only achieve environmental improvements but also enhance operational processes through waste reduction, resource efficiency, and increased employee engagement (Aremu & Adepoju, 2024). These improvements in operational efficiency are consistent with research done in the manufacturing context where environmental and green HRM practices were associated with improved performance metrics such as quality, flexibility, and cost effectiveness (Aremu & Adepoju, 2024). Consequently, the significant beta in your regression not only confirms a statistical relationship but also reflects practical organizational gains associated with embedding green training into human resource development strategies.

translates into policy and subsequently in-practice changes to environmental performance.

Conclusion

Green human resources planning is a new trend which is effective with a cost-free proposition. This research has proven that corporate companies are beginning to align their mission, aims, strategies, and tactics with the function of green human resource planning. These green human resources planning process cooperates with the organizations through the process, describes the talents, skills, knowledge, and abilities of top performers and manages the process from start to finish and also applies in our daily to today life so that its importance in the upcoming future is ensured. Reducing ongoing energy expenses and costs for other non-renewable resources. To make the company more sustainable. Consequently, the study investigates the green human resource planning on organizational performance in plastic manufacturing enterprises of South-East, Nigeria. Data used for analysis was identified from primary and secondary sources, while Linear Regression Analysis was conducted to test hypotheses. Results indicate that green training and development had positive significant effect on operational performance while green culture practices had a positive significant effect on environmental performance. Therefore, this study concluded that green human resource planning had a positive significant effect on organizational performance of plastic manufacturing firms in South-East, Nigeria.

Recommendations

Based on the findings of the study, the following recommendations are put forward:

1. Plastic manufacturing firms in Southeast, Nigeria should adopt a green training and development where the emission control of business sustainability is also a significant variable; the emission control as a green training and development variable contributes to the operational performance of manufacturing firms
2. Management of plastic manufacturing firms in Southeast, Nigeria should employ the usage of green culture practices as an avenue for enhancing environmental performance and finally, government through her various regulatory agencies should formulate a policy for manufacturing firms to comply with green culture practices by presenting the gains inherent in adhering to culture practices of the environment which the company is operating in order to foster environment sustainable development.

Competing interests' statement

The authors declare there are no competing interests.

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