

GREEN TRAINING AND DEVELOPMENT: MEDIATING ROLE OF EMPLOYEE PRO-ENVIRONMENTAL BEHAVIOUR IN ACHIEVING ENVIRONMENTAL SUSTAINABILITY IN A SELECTED MANUFACTURING COMPANY IN NIGERIA

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ABSTRACT

The world is faced with various environmental challenges brought about by the unsustainable production processes of manufacturing companies. The paper investigates the influence of green training and development on environmental sustainability in manufacturing companies in Nigeria, while considering the mediating role of employee pro-environmental behavior. Data was collected from 127 employees from a manufacturing company in Lagos Nigeria. A regression analysis was used to test the hypotheses. The result shows that green training and development, influence environmental sustainability. The findings also show that employee pro-environmental behavior mediates the relationship between green training and development and environmental sustainability.

Keywords: “Green training and development; employee pro-environmental behavior; environmental sustainability; green skills; green awareness; green competencies”

INTRODUCTION

Employees are essential resources to any organization and developing the competences and skills of the employee is essential to any organization achieving its set goals and objectives. Effective utilizing human resources is a requirement to any organization therefore training and development of employees is crucial. The belief that organizations are motivated only by economic activities is fast changing as today’s organizations and business bodies in general have understood that without the environment and the people the organization cannot achieve or attain success (Jamal, et al, 2021). Gaining competitive advantage in today’s corporate world requires competent and skilled employees to help achieve organizational goals and objectives. Hence training and development of employees is paramount in achieving organizational success. In recent years policymakers, corporate bodies and governments all over the world have shown great concerns for environmental problems which has led to the development of stringent environmental regulations prompting organizations to go green. Organizations are now faced with pressure to improve their environmental sustainability and this has led to various organizations all over the world gradually implementing environmental sustainability initiatives in a bid to sustain the organization thereby urging employees to develop their skills and competencies in regards to green practice (Xie, et al, 2020).

Environmental protection has gradually found its way into the organization because of the believe that the activities of today's organization are not environmentally friendly and this can be traced to organizations trying to meet the high rate of demand from their customers. The environment can create threats or opportunities for both organization and the society and growing evidences have suggested that climatic changes and environmental degradation are serious threats to environmental, societal and economic health of a society which has urged organizations to find ways to address environmental issue as well as dealing with the economic issues, as attaining success within the business community now requires organizations to focus on sustaining the environment making it necessary for policy makers to put in consideration the environment in their pursuit of industrial growth (Shoeb, and Tahir, 2015).

Training and development are essential in improving the competence and skills of the employees. It is essential for employers whose focus is on achieving competitive advantage to make available proper training to their employees so as to acquire the needed competence to achieve organizational success. The human resources are the agents for achieving the desired goals of the organization. Therefore, proper training enables the employee to develop the skills needed to tackle tasks and achieve high performance and productivity in their jobs. This notion has led to the belief that to achieve environmental sustainability within the organization, organizations need to provide their employees with the needed training in environmental management so as to develop the environmental skills and competencies needed to achieve the organizations environmental goals. Green training according to Xie, et al (2020) is training linked to pertinent environmental topics which allow employees to fit in the organizational performance with environmental issues. Therefore, it is essential for manufacturing companies to implement corporate environmental management initiatives requiring a high technical and managerial skill among employees. In this respect, the training and development process of the organization should aim at increasing the employee's environmental awareness as well as their technical and managerial competence in order to foster environmental awareness in (Piwowar-Sulej, 2021). Therefore, to promote human development, the organization has to provide its employees with the necessary training, skills development and professional development through a sustainable plan that becomes a long-term employee strategy (Alolayyan, et al, 2021).

Statement of the Problem

The Nigerian manufacturing sector is the major waste producer in the country that affect the balance of the environment (National policy on the environment, 2016). Behavior of employees in the manufacturing industry are not environmentally friendly and this can be traced to their mode of operations which has caused a number of environmental issues such as carbon emissions, land crises, material shortages, water crises, ecological problems and waste problems. These wastes pollute the environment, waste resources and make operations costly (Mburu, et al, 2018). All these challenges have led to a rise in environmental disease and poverty, which are threats to humanity itself, preventing the country from attaining sustainable development and might create major problems that will damage the manufacturing sector, the economy and the environment if not properly managed (Mbang, et al, 2020). However, faced

with stringent environmental regulations and the urgent need to go green, the lack of skilled, competent and knowledgeable employees with the capability of improving the quality of organizational products and processes tends to hinder the organization's capability to efficiently implement green practices (Xie, et al, 2020). GHRM practices focus on hiring and retaining environmentally friendly employee and making available adequate environmental training for the employees (Eko, et al, 2022) but these practices are rare in manufacturing companies in Nigeria. It is therefore necessary for Nigeria manufacturing companies to address environmental issues brought about by their activities by ensuring that employees adopt environmentally friendly behavior by training and educating the employees on environmental management.

Research Questions

- a. how will green training and development influence pro-environmental behavior within manufacturing companies in Nigeria?
- b. what extent does green training and development influence environmental sustainability within manufacturing companies in Nigeria?
- c. what role will employee pro-environmental behavior have as a moderating variable between green training and development and environmental sustainability in manufacturing companies in Nigeria?

Research Objective

The objective of this study is examining the influence of training and development on employee pro-environmental behavior so as to as to achieve environmental sustainability in manufacturing companies in Nigeria.

Research Hypothesis

HQ1: Green training and development do not significantly influence environmental sustainability of manufacturing companies in Nigeria?

HQ2: Green training and development do not significantly influence employee's pro-environmental behavior of manufacturing companies in Nigeria?

HQ3: Employee pro-environmental behavior plays no significant mediating role between green training and development and environmental sustainability of manufacturing companies in Nigeria?

LITERATURE REVIEW

Employee Pro-Environmental Behavior

The concept of pro-environmental behavior came into light from the works of various scholars on environmental problems in the 1960's and can be said to be an individual's voluntary behavior towards contributing to organizational sustainability which has always been an issue over the years compelling people to consider the effect of human activities on the ecological

environment and reflect on the effect of their activities on the ecological environment (Omarova and Jo, 2022). Employee pro-environmental behavior refers to behaviors within the workplace that are linked to environmental sustainability and promote environmental sustainability within the organization (Yujing, et al, 2019). Stern (2000) cited in Felipe, (2014) define pro-environmental behavior as a behavior that deliberately focuses on the reductions of the negative influence of human actions on the natural world. In other for environmental sustainability to be successful in organizations, all members of the organization are required to display a positive behavioral change, believed to be a critical green resource requirement referred to as green behavior.

Employees are the agents that implements the green policies the organization set to achieve; therefore, it is essential for organizations to promote employee pro environmental behavior, and align such behavior with organizational green goals and objectives (Shen, et al, 2016). If the human resources policies and practices are aligned with environmental and sustainable behaviors, organizations will enjoy organizational sustainability and positive employee performance (Rawashdeh, 2018). Organizations who do not involve their employees in the greening activities of the organization will find it impossible to achieve efficiency in environmental performance since employees are the major change agents in any organization (Renwick, et al, 2013). Encouraging employee green behavior in the workplace is believed to be one of the factors that can help handle environmental issues, as pro-environmental behavior is carried out in relations to the employees' job, making them inclined in environmental-friendly behavior at the workplace, which will eventually become an organizational culture that focuses on environmental awareness, boosting green behavior at work (Bashirun and Noranee, 2020). When employees become green, they will be willing to contribute significantly to protect, converse and preserve the natural environment (Arulrajah and Opatha, 2016). Having employees with green behavior is essential to achieving a green organization, therefore it is important for organizations to train its employees on environmental management to help the organization achieve its environmental goal. It is therefore impossible to make an organization green without making its employee green and in order for an employee to become a green employee the organization needs to train and educate the employees on environmental management.

Green Awareness

Green awareness is knowing the impact employee behavior have on the environment which would likely influence an employee's self-consciousness as the employee becomes interested in protecting the environment and perceive it as essential to their job. Green awareness is seen as internal factors that influence employee behavior and employees who are environmentally aware would display positive environmental behavior which would impact an environmentally friendly way of doing things both at home and at work (Bashirun and Noranee, 2020).

Green Skills

Green skills are very essential and are an underlying variable that contributes to employee's pro-environmental behavior. Green skills are the skills that's needed to reduce environmental

impact to achieve a cleaner environment. Green skills are the knowledge, values and attitudes needed to support a sustainable environment. It also promotes and supports green employment.

Green Competencies

Green competencies are the expertise employees need to tackle environmental problems and challenges. It is important for the employee to have the right amount of knowledge and skills in greening, without these competencies the employee cannot become a green employee and HRM has to provide the competencies that is needed for the improvement of organizational environmental performance (Opatha and Arulrajah, 2014).

Green Training and Development and Green Employee Behavior

One of the functions of Human resource management (HRM) is Human Resource Development which centers on developing human capital. Human resource development is the use of various combinations of HRM functions such as training and development, organizational behavior and career path to develop and improve both organization and individual capabilities and effectiveness (Piwowar-Sulej, 2021). Training and development are essential to any organization's performance. Organizations aspiring to achieve high performance needs to provide training and developments to its employees which is one of the essential functions of HRM (Adimuthu, et al, 2017). The HRM of any organization is saddled with the responsibility of ensuring that employees get the necessary training and development, relevant skill and the knowledge needed to gain and remain at a competitive advantage in the job market (Adimuthu, et al, 2017) therefore organizations that are concerned with achieving environmental sustainability should be concerned with influencing pro-environmental behavior in their employees which can be achieved through green training and development. Due to the pressure for sustainability, employees are being admonished to improve their skills so as to match their jobs with their particular strength (Xie, et al, 2020). Green training is an essential HR process that influences and improves the green creativity of the employees (Gunjan and Rajib, 2020) and ensures that employees adopt pro-environment behaviors. It is considered to be one of the most important green HRM practices needed by organizations to achieve a successful green management practice (Rawashdeh, 2018). Green training and development is an essential function of the green human resource management (GHRM) practice. Its main purpose is directing people's attention and knowledge towards environmental issues and creating environmentally friendly behavior in the employees by bringing to light the importance of protecting the environment by identifying the sources of pollutions in the organization and taking a proactive approach towards greening initiatives and building employees competencies in environmental activities such as waste reduction and energy saving thereby making employees more environmental aware and conscious (Rawashdeh, 2018 ; Guiyao, et al, 2017).

It is therefore important to note that organizations that aim to achieve environmental sustainability require employees who are knowledgeable of environmental management process. Although some employees may already possess the skills and knowledge of environmental management upon their entry into the organization while others may not, but

regardless of whether the employees are knowledgeable about environmental management or not, it is the responsibility of the organization to train its employees on environmental protection and to also improve the knowledge and skills of the employees who are already familiar with sustainability process as well as environmental management techniques (Adimuthu, et al, 2017). However, there are employees whose duties are directly linked with environmental administration, nevertheless, not only employees whose duties are directly linked with environmental administration should be trained on environmental matters but environmental training as well as educational programs should be initiated and made available to all the members of the organization regardless of employee department or duties (Guiyao, et al, 2017). And by creating environmental awareness among both new and existing members of the organization through environmental training, the organization is bound to improve the environmental skills and knowledge of the employees thereby achieve an environmentally sustained organization.

The Environment as a Source of Sustainable Development

The term Environment can be described as the study of processes in water, soil, land, atmosphere, air and organisms. It involves all the elements which forms the basis, setting and living conditions for human beings, by their existence or their impacts (Larsson and Assia, 2019). The environment is both the physical and social circumstances which includes landmass, water bodies, grassland, deserts, and animals and man himself and everything that affects and influences man (Leke and Leke, 2019). The environment consists of both living organisms and their environment. There are various functions the environment plays. According to De Groot, the functions of the environment include making use of natural methods and mechanisms to make goods and services that will directly or indirectly meet the needs of humans. He believed that the goods are the resources provided by the ecosystem mechanisms such as plants, animals, minerals and other natural resources, while services include waste recycling, provided by ecosystem processes of biogeochemical cycling (Chen, et al, 2021).

Nigerian Outlook on Environmental Sustainability

Nigeria is a nation blessed with immense natural resources, despite its vast resources the world bank specifies that majority of its people suffer from abject poverty, living below \$2 per day placing Nigeria amongst the 47th poorest countries of the world (WBDI, 2012 cited in Afolabi and Laseinde, 2019). Over the years, the Nigerian environment continues to experience a degradation and an increase exposure in environmental diseases, which were some of the concerns of the Nigerian government in the wake of the covid-19 pandemic, because about 90 million people live in extreme poverty and poor living conditions, viewed as catalyst of possible high transmission rate of the pandemic in the country (PwC, 2021). Although poverty has been argued to be a reason for people's crude way of exploiting natural resources which can lead to excessive and indiscriminate deforestation, bush burning, overgrazing among others, nevertheless, even in developed countries with all their scientific and technological advancement, industrial activities has led to pollution and degradation of the environment (Wonah, 2017). Economic development has been seen as the central task for growing the

Nigerian economy by the Nigerian government, creating series of environmental and social problem (Erhun, 2015). However, if properly managed the environment can be a productive resource to meet the socio-economic needs for today and future generations otherwise it will become hazardous and a threat to the country's survival (National policy on the environment, 2016).

Environmental management in Nigeria has remained constantly bad over the years and difficult to solve and in spite of efforts made by the government to tackle the environmental issues the environment continues to degenerate while environmental related diseases continue to provoke poverty. The underutilization of its endowed natural resources has created a series of problem for the Nigeria economy, blamed for the extreme poverty evident in its economy, specifically in the manufacturing sector that has the capacity of enhancing employment opportunities and Nigeria's economic development (Afolabi and Laseinde, 2019). The growth in a nation's manufacturing sector drives the economy of that nation in the direction of positive and sustained growth because of its contribution to the GDP of the nation (Afolabi and Laseinde, 2019). This has caused the Nigerian government to work towards quickening sustainability in the economy and prevent or stop more damages done to the environment by igniting a transition in the manufacturing sector through the use of natural resources for industrial production, while stressing a "shift from the linear economic model of manufacturing to a circular and sustainable industrial model that uses raw materials more efficiently and reduces waste" (This Day, 2021). Therefore, there is a need for manufacturing companies to ensure a sustainable utilization of natural resources so as to sustain the industry. Recognizing the relationship between manufacturing processes and natural environment is now a major factor in the decision making of manufacturing companies (Mbang, et al, 2020).

The country has limited capacity to handle its environmental issues and has not been able to minimize its high rate of land, water and air pollution. This emphasizes that Nigeria still has a lot to do in order to achieve the sustainable development goals (SDG) associated to the preservation and sustainable use of its natural resources for meaningful socio-economic development (National policy on the environment, 2016). Today's organizations are increasingly becoming aware of the impact their activities have on the natural environment and this has led to some organizations initiating green training and development practices in order to improve employee's skills and competencies in environmental management and limit the damages to the environment as a result of organizational activities and also to reduce environmental footprints. However, green training and development function is still a new concept that has started gaining grounds in today's organizations. While some organizations have fully comprehended the need for green training and development practice and have initiated the practice in their organization, some are still not aware or are still struggling with understanding the importance of green training and development or its benefits to the organization. This shows that green training and development practice are essential to achieving environmental sustainability and in order to prevent further degradation of the environment and limit harm to the environment, green training and development practice needs to be adopted and initiated in Nigeria manufacturing industries. Some areas in which employees need to train include areas such as utilization of raw materials, waste management,

energy consumption, reducing industrial emissions, prevention of pollution and product processing.

Utilisation of Raw Material

Manufacturing companies should purchase only needed pro-environmental raw materials, manufacture only environmentally friendly products, distribute in an environmentally friendly manner and recycle used materials or destroy in a safe manner (Chkwuemeka, 2020). Utilizing raw materials unsustainable results into degradation of natural resources and results into waste.

Waste Production

Waste management is a serious challenge in Nigeria and it is important that wastes are properly managed. Its importance can be seen through its clear intrusion in the daily lives of the people (Chkwuemeka, 2020) and a failing waste management system leading to both soil and water contamination, air pollution, green-house gas emission and a deteriorating biodiversity, having an overall social impact (PwC, 2021).

Energy Consumption

One of the major challenges organizations are facing in the area of energy consumption is the lack of corporate leadership monitoring of the proper utilization of energy sources and usage within the organization (Adimuthu, et al, 2017). Manufacturing companies use a lot of energy so as to meet the increasing demand for goods and services. They make use of generators and fossil fuels, which emits a high volume of carbon into the atmosphere, as sources of energy. Developing alternate energy to reduce the use of finite natural resources could help prevent environmental decline (Sowajanya, 2019).

Reducing Industrial Emission

Industrial emissions are the gas pollutants released into the air during manufacturing activities which can result into global warming. There is a global agreement that climate change is occurring caused by human-induced greenhouse gas emission cause from fossil fuel combustion and the change in land use (Eyraud, et al, 2011). To reduce gas pollution, green HRM practices are important beginning from purchasing of raw materials, manufacturing of products, distributing products, selling products to disposing products (Ahmed, et al, 2021). The adoption of green HRM will help influence pro-environmental behavior in employee, ensuring that while producing goods they purchase only the needed environmentally friendly products, manufacture eco-friendly products, distribute the good in an environmentally friendly way and dispose used products either by recycling or destroying the used products in an environmentally way to reduce the possibility of gas pollution.

Products Processes

To preserve the natural resources there is a need for organizations to manage product processing, packaging and materials to ensure a proper and safe utilization of natural resources. Going green in manufacturing companies includes recycling of used products, conservation of resources, waste management, environmental protection and pollution control (Ahmed, et al,

2021). Developing products that are harmless and cause less pollution to the environment, such as biotech products, can help minimize environmental impact (Sowjanya, 2019) and can get the job done at the same cut cost. Therefore, raw materials can be gotten in an eco-friendly manner such as sourcing from waste streams, construction waste, and post-consumer waste and renewable agricultural sources.

Theoretical Review

This study was anchored on the natural resource-based view theory and the resource based-view theory.

The Natural Resource Based Theory (NRBV)

The natural resource-based (NRBV) theory was introduced by Hart (1995) as an expansion of the existing resource-based view theory propounded by Wernerfeldt (1984) by including the natural environment in the theory. This was aimed at developing a link between pollution prevention and organizations profitability (Azila and Nazimah, 2019). The Natural Resource based (NRBV) theory, unlike the resource-based view theory puts in consideration the environmental impact of an organization activities while explaining organizational outcome (Andersen, 2021). It is believed that the natural environment can create serious constraint to organization's achieving sustainable advantage (Hart and Dowell, 2011). The theory argues that the exploitation of existing natural resources and developing new resources is the best opportunity of competitiveness. According to Hart (1995) organizations can get resources form both ecological and societal issues which can result into gain for the organization. The natural resource-based view (NRBV) consists of three stages of strategic compatibility which are pollution prevention, product stewardship and sustainable development (Azila, and Nazimah, 2019).

Pollution prevention emerged as a result of a lot of pressure on organizations to prevent emissions and reduce waste that emanate as a result of their production activities (Azila and Nazimah, 2019). The pollution prevention stage emphasizes that when organizations shift their attention towards waste prevention rather than waste control the organization will benefit from improved productivity, efficiency and lower cost (Hart and Dowell, 2011). The product stewardship stage focuses on prioritizing the natural environmental throughout the stages of product-life-circle or during its supply chain (Andersen, 2021). It allows for environmental management to be included into the product design which allows access to green materials and the establishment of standards that are beneficial to the organization (Hart and Dowell, 2011). The third stage of NRBV strategy focuses on sustainable development which includes environmental, economic and societal issues globally. The sustainable development stage is aimed at minimizing harm and improving environmental conditions by prioritizing food security, global populations and ecological resources (Shrivastava and Hart, 1995).

These three stages help the organization build three key resources which are; continuous development, stakeholder integrating and a shared vision, each leading to competitive advantage in form of low cost, pre-empting competitors and establishing a future position (Hart, 1995). The NRBV theory is based on the ideology that an organization's competitive

advantage is dependent on the organization's relationship with the natural environment. The theory proposes that an organization can achieve competitive advantage based on adopting strategies that supports environmental sustainability (Andersen, 2021).

The Resource-Based View Theory

The resource-based theory is derived from the work of economist Edith Penrose 1959, published in different literatures during the 50's reviewed by Lockett (2005) as an approach focused on strategic management (Cabrera-Moya and Reyes, 2018). For Penrose, individual behavior and learning are important functions in the growth process of the firm, but managerial limitation is viewed as a constraint to a firm growth (Hansson, 2015). It argues that there is a link between competitiveness and resources, in which the success and the growth of firms is connected to the effective and efficient utilization of these resources (McDougall, et al, 2019). Today's organizations are faced with diverse challenges and just obtaining competitive advantage is not just enough anymore but to obtain sustainable competitive advantage (Cabrera-Moya and Reyes, 2018). "The basis of the resource-based view theory is that successful firms will find their future competitiveness on the development of distinctive and unique capabilities, which may often be implicit or intangible in nature" (Teece et al 1991, cited in Theriou, et al, 2009).

The resource-based view theory asserts that firms possess resources that allows them to achieve competitive advantage leading towards a higher long-term performance (Wade and Hulland, 2004). The theory centers on the internal resources of the organization, viewed as the principal factor for obtaining competitive advantage, and the internal resources is the employees who are the product of HR system geared towards sustaining a strategically relevant organizational behavior (Wright, et al, 2001). Through proper rationalization process an organization can gain competitive advantage which suggests that, organizations are capable of generating more output from their existing resources and also improve the way the resources are utilized (Hamel and Prahalad, 1993). This implies that, even with the same standards in an industry, the way the resources are utilized is the foundation upon which competitive advantage is created rather than the differences between organizations. Therefore, the resource-based theory does not universally believe that the possession of a resource will yield competitive advantage, but that the effective utilization of the right resources might deliver competitive benefits (McDougall, et al, 2019).

Reviewing the two theories, the natural resource-based theory and the resource-based theory, show that the application of the right resources is what allows an organization gain competitive advantage. While the natural-based view argues that including the natural environment in organizational activities will enable the organization gain competitive advantage while the resource-based view argues that having employees with the right skills and competencies will enable the organization gain competitive advantage. However, this study argues that both the natural resources and the human resources are essential and needed to gain competitive advantage. Environmental policies in the organization will not drive itself but the employees will be the driver of such policies. Also, if attention is not given to the preservation of the environment, then the organization will not achieve its sustainable development goals which

can hinder them from achieving the competitive advantage it needs to survive in the corporate world. Therefore, employees need to incorporate environmental management into their activities in the organization. And since the HR are the sole custodians of the employees, the HR need to initiate best practices to ensure that the behavior of the employee is in line with organizations green goals and this can be achieved through the application of green training and development. That is training employees to adopt pro-environmental behaviors, enabling the employees to be environmentally friendly.

Materials and Method

The study adopts descriptive survey research to investigate green training and development, employee behavior and environmental sustainability. Data was collected from 127 employees from a manufacturing company in Lagos Nigeria. Convenience sampling technique was used to collect the data. The data was obtained through self-administered questionnaires and constitutes semi-structured questions. The questions adopted the 5-point Likert scale where questions are used to solicit responses related to the objective of the study from the respondents. A regression analysis was done and the Statistical Package for Social Science (SPSS) was used to measure the relationship between the independent variable, mediating variable and the dependent variable. A pilot test was done to ensure the reliability of the research instrument. The research instrument was done using Cronbach-Alphas.

Reliability Coefficient

Table 1 represents the overall reliability scale used to measure the variables. All the items returned a Cronbach alpha coefficient of 0.7. Therefore, they are considered reliable for the study. The individual items in the instruments measures a single construct and gave a highly correlated result, average of 0.839.

Result

HQ1: The relationship between the independent variables, green skills, green competence and green awareness, and the dependent variable, environmental sustainability was tested. The Pearson correlation shows that green awareness has a stronger correlation with environmental sustainability. The findings show a significant correlation between green awareness and environmental sustainability ($R = 0.849$), which indicates a strong relationship between green training and development and environmental sustainability (see Table 2). This shows that the model is a good predictor of the outcome. The findings also show an R square of 0.720. This result indicates that 72% of the dependent variable can be predicted by the independent variable (see Table 3). Analysis of variance was used to test whether the model is a predictor of the outcome variable. The result shows that the significance of the value is less than $p=0.05$. This shows that green awareness predicts environmental sustainability. The model for the test is= $F(\text{Regression df, Residual df}) = F.\text{Ratio}, p=\text{sig}$. The result indicates that the model was a significant predictor of environmental sustainability. $F(1,125) = 321.8, P = .000$ (see Table 4). Therefore, the first hypothesis is rejected. The multiple regression was carried out to examine whether the independent variable, green training and development significantly influence the dependent variable, environmental sustainability. The result of the regression show that the

model significantly explained 72% of the variance and the model significantly predicts environmental sustainability.

HQ2: The relationship between the independent variables, green skills, green competence and green awareness, and mediating variable, employee behavior was tested. The Pearson correlation shows that green awareness has a stronger correlation with employee behavior. The result of the findings shows a significant correlation between green awareness and employee pro-environmental behavior ($R = 0.877$), which indicates a strong relationship between green training and development and employee pro-environmental behavior (see Table 5). This shows that the model is a good predictor of the outcome. The findings also show an R square of (0.769), this result indicates that 76.9% of the dependent variable can be predicted by the independent variable. Analysis of variance was used to test whether the model is a predictor of the outcome variable. The result shows that the significance of the value is less than $p = 0.05$ (see Table 6). This shows that green awareness employee pro-environmental behavior. The model for the test is F (Regression df, Residual df) = F .Ratio, $p = \text{sig}$. The result indicates that the model was a significant predictor of employee behavior. $F(1,125) = 415.2$, $P = .000$ (see Table 7). Therefore, the second hypothesis is rejected. The multiple regression was carried out to examine whether the independent variable, green training and development significantly influence the mediating variable, employee pro-environmental behavior. The result of the regression show that the model significantly explained 76.9% of the variance and the model significantly predicts employee pro-environmental behavior.

HQ3: The mediating role of employee pro-environmental behavior was tested. The Pearson correlation shows that employee pro-environmental behavior influences environmental sustainability. The result of the findings shows a correlation between employee pro-environmental behavior and environmental sustainability ($R = 0.987$) which indicates a strong relationship between green training and development and employee pro-environmental behavior (see Table 8). This shows that the model is a good predictor of the outcome. The findings also show an R square of 0.975. This result indicates that 97.5% of the dependent variable can be predicted by the independent variable. Analysis of variance was used to test whether the model is a predictor of the outcome variable. The result shows that the significance of the value is less than $p = 0.05$ (see Table 9). This shows that green awareness employee pro-environmental behavior. The model for the test is F (Regression df, Residual df) = F .Ratio, $p = \text{sig}$. The result indicates that the model was a significant predictor of employee behaviour. $F(1,125) = 4828.2$, $P = .000$ (see Table 10). Therefore, the third hypothesis is rejected. The multiple regression was carried out to examine whether the mediating variable, employee pro-environmental behavior significantly influences the dependent variable, environmental sustainability. The result of the regression show that the model significantly explained 97.5% of the variance and the model significantly predicts environmental sustainability.

Discussion

It was expected that the dimensions of green training for this study, green awareness, green skills and green competencies will strongly predict employee pro-environmental behavior. However, the result show that green awareness predicts green skills and green competencies which altogether influence employee pro-environmental behavior. Nevertheless, green awareness can only be achieved through green training and development. The results of this study, therefore shows that green training and development significantly influence environmental sustainability thorough employees' pro-environmental behavior. This is consistent with the study of Al-Juboory and Eydan (2019) who investigated green training and its impact on the sustainability of the health organization. The study shows that there is an awareness and willingness by employees to build an effective sustainable healthy organization which is evident in the aspiration of the workforce to participate in the training program to bridge the gap between planning and implementation. Similarly, a study by Farid and El-Sawalhy, (2016) evaluated the awareness and implementation of green human resource management, and the findings show that green training and development is adopted in order to achieve environmental sustainability. Also, study by Pham, Hooang and Phan, (2019) conclude that employee environmental commitment is expected to be influenced by HRM practices such as green training. A study by Yafi, Tehseen and Haider, (2021) studied the impact of green training on environmental performance. The study concludes that green training has significant impact on green environmental performance as well as employee green skills and green competencies.

This implies that when employees are environmentally aware they tend to achieve the organization's environmental goals and objectives. Also, employees that are trained in environmental management tend to develop environmental awareness, skills and competencies which makes them more environmental conscious. The findings also show that green training and development also significantly influence employee pro-environmental behavior. This result indicates that, when employees are trained on environmental management, they tend to exhibit a pro-environmental behavior. This result is in line with the study of Jehan, Hussai, Batool and Imran, (2020) the study indicate that green training and development shows a direct relationship with both employee pro-environmental behavior and sustainable environment. These findings prove that green training and development is able to influence employee pro-environmental behavior. The result also show that employee pro-environmental behavior influences environmental sustainability.

Finally, the result indicates that employee pro-environmental behavior is a significant mediating mechanism between green training and development and environmental sustainability. This implies that the relationship between green training and development may not only be direct but green training and development affects workplace environmental outcome through a particular mechanism, (Yafi, Tehseen and Haider, 2021) in this case, employee pro-environmental behavior.

Conclusion

The study examined the influence of green training and development outcomes, namely green awareness, green skills and green competencies on environmental sustainability through the mediating role of employee pro-environmental behavior. The data showed that green training and development outcomes have positive significant on environmental sustainability of manufacturing companies in Nigeria. Employee pro-environmental behavior was also found to significantly mediate the relationship between green training and development and environmental sustainability. This study will add to our understanding on the influence of green training and development on employee pro-environmental behavior. It will also contribute to literature on the mediating role of employee pro-environmental behavior.

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Declaration of Interest

I hereby write that the information disclosed in this article is correct and no other situation of potential conflict of interest is known to me.

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Table: 1: Reliability Coefficient

Variables	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	Number of Items
Green Training and Development (Green awareness, green skills and green competencies)	.705	.718	30
Employee Pro-Environmental Behaviour	.882	.883	10
Environmental Sustainability	.887	.915	10
		.839	

Table 2: Correlation of Green Training and Development Variables and Environmental Sustainability

		Environmental Sustainability	Green Competencies	Green Skills	Green Awareness
Pearson Correlation	Environmental_Sustainability	1.000	.735	.841	.849
	Green_Competencies	.735	1.000	.837	.840
	Green_Skills	.841	.837	1.000	.970
	Green_Awareness	.849	.840	.970	1.000
Sig. (1-tailed)	Environmental_Sustainability	.	.000	.000	.000
	Green_Competencies	.000	.	.000	.000
	Green_Skills	.000	.000	.	.000
	Green_Awareness	.000	.000	.000	.
N	Environmental_Sustainability	127	127	127	127
	Green_Competencies	127	127	127	127
	Green_Skills	127	127	127	127
	Green_Awareness	127	127	127	127

Table 3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.849(a)	.720	.718	.35207	1.380

a. Predictors: (Constant), Green_Awareness

b. Dependent Variable: Environmental_Sustainability

Table 4: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	39.889	1	39.889	321.801	.000(a)
	Residual	15.494	125	.124		
	Total	55.383	126			

a. Predictors: (Constant), Green_Awareness

b. Dependent Variable: Environmental_Sustainability

Table 5: Correlations between Green Training and Development Variables and Employee Pro-Environmental Behaviour

		Employee pro-environmental behaviour	Green Competencies	Green Skills	Green Awareness
Pearson Correlation	Employee_proenvironmental_behaviour	1.000	.744	.867	.877
	Green_Competencies	.744	1.000	.837	.840
	Green_Skills	.867	.837	1.000	.970
	Green_Awareness	.877	.840	.970	1.000
Sig. (1-tailed)	Employee_proenvironmental_behaviour	.	.000	.000	.000
	Green_Competencies	.000	.	.000	.000
	Green_Skills	.000	.000	.	.000
	Green_Awareness	.000	.000	.000	.
N	Employee_proenvironmental_behaviour	127	127	127	127
	Green_Competencies	127	127	127	127
	Green_Skills	127	127	127	127
	Green_Awareness	127	127	127	127

Table 6: Model Summary (b)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.877(a)	.769	.767	.31540	1.298

- a. Predictors: (Constant), Green_Awareness
 b. Dependent Variable: Employee_proenvironmental_behaviour

Table 7: ANOVA (b)

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	41.303	1	41.303	415.198	.000(a)
	Residual	12.435	125	.099		
	Total	53.738	126			

- a. Predictors: (Constant), Green_Awareness
 b. Dependent Variable: Employee_proenvironmental_behaviour

Table 8: Correlations between Environmental Sustainability and Employee Pro-Environmental Behaviour

		Environmental Sustainability	Employee_proenvironmental behaviour
Pearson Correlation	Environmental_Sustainability	1.000	.987
	Employee_proenvironmental behaviour	.987	1.000
Sig. (1-tailed)	Environmental_Sustainability	.	.000
	Employee_proenvironmental behaviour	.000	.
N	Environmental_Sustainability	127	127
	Employee_proenvironmental behaviour	127	127

Table 9: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.987(a)	.975	.975	.10574	1.180

- a. Predictors: (Constant), Employee_proenvironmental_behaviour
 b. Dependent Variable: Environmental_Sustainability

Table 10: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	53.985	1	53.985	4828.176	.000(a)
	Residual	1.398	125	.011		
	Total	55.383	126			

- a. Predictors: (Constant), Employee_proenvironmental_behaviour
 b. Dependent Variable: Environmental_Sustainability

Word Count: 8021