Innovations

Green Human Resource Management Practices, Employees' Behaviour and Environmental Sustainability of Manufacturing Companies in Nigeria

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Abstract

Environmental issues have become an issue of concern all over the world as our environment has deteriorated over the past centuries, creating threats to humanity itself. This unsafe position can be attributed to the unsustainable industrial activities of humans. The Manufacturing sector is believed to be one of the largest contributors of waste and emissions which impedes the attainment of sustainable development goals. In order to address the various issues associated with environmental challenges, green human resource management (GHRM) practices are an alternative approach for manufacturing companies that allows the organisation to have more sustainable operations. The study hereby examined the role of green human resource management (GHRM) practices on environmental sustainability with employee behaviour as a mediating variable. The data was collected from 362 employees in 3 manufacturing companies in Nigeria. The data were analysed using structural equations modelling (SEM). The study concludes that green recruitment and selection and employee behaviour positively influence environmental sustainability also green employee relations positively influence employee behaviour in manufacturing companies in Nigeria. However, employee behaviour does not mediate the relationship between GHRM practices and environmental sustainability.

Keywords: 1.Green Human Resource Management (GHRM) Practices, 2.Environmental Sustainability, 3.Employees' Behaviour, 4.Green Recruitment and Selection (GRS), 5.Green Training and Development (GTD), 6.Green Employee Relations (GER), 7.Manufacturing, Nigeria.

Introduction

Environmental challenges have become a major issue all over the world making it necessary for policy makers as well as organisations to look into their mode of operations and address environmental problems brought about by the nature of their activities. Today's organisations are faced with pressure to improve their environment by adopting environmentally friendly business practices and this has led to various organisations all over the world gradually

implementing environmental sustainability initiatives in a bid to sustain the organisation as well as the society(Mousa and Othman, 2020).All over the world environmental issues have grown to a grave situation and organisations are becoming more conscious of how their practices affect the environment, therefore, there is a need for organisations and environmental safety organisations to link sustainable development, environmental management and Human Resource Management (HRM) practice, for the reason that human resource (HR) function will become the driver of environmental sustainability within the organisation by aligning its practices and policies with sustainability goals thereby reflecting an eco-focus organisation (Saleem, Qadeer, Mahmood and Han, 2021). In this respect, the human resource (HR) functions should aim at increasing the employee's environmental awareness as well as their technical and managerial skills and competence to foster environmental awareness in organisations (Arzaman, Omar and Khalid, 2018).

There are various elements in the external environment that are essential in the operation of an organisation and for an organisation to continue to operate it has to put into consideration the external environment, because as the environment is beneficial to the operations of an organisation, the environment is also expected to benefit from the actions of the organisation (Adebayo, Worlu, Moses and Ogunnaike, 2020). According to Adimuthu, Ishmael and Richard, (2017), organisations are believed to have the ability and power to effect the essential changes posed by environmental problems by equipping employees with appropriate knowledge and skills concerning the going green concept which makes their response to challenges of environmental sustainability very crucial. This study therefore aims to examine the influence of green human resource management (GHRM) practices on environmental sustainability while putting in consideration the mediating role of employees' behaviour.

Statement of the Problem
Nigeria is blessed with both human and material resources that can assure the nation's sustainable economic development and growth in the coming years (UNDP, 2012). Notwithstanding, environmental challenges, such as degradation of the environment, depletion of natural resources, waste management problems, and water, land and air pollution, is still prevalent in the country (National policy on the environment, 2016), preventing the country from achieving sustainable development. Programs that were designed to tackle these environmental issues have proven inefficient and inadequate (Pona, H. T., Xiaoli, D., Ayantobo, O. O., and Tetteh, 2021). As environmental challengeshave increased environmental disease and poverty in the nation, which are threats to humanity itself, preventing the country from achieving sustainable development (Mbang, Ogbo, Emeh, Gabriel, Iheonkan and Afolabi, 2020).

The practices of the manufacturing industry, both product-related practices and process-related practices, are not environmentally friendly and this can be traced to their mode of operations which has caused several environmental issues such as carbon emissions, land crises, material shortages, water crises, ecological problems and waste problems in form of toxic chemicals, non-biodegradable solids and poisonous liquids, identified to be caused by the exploitation of raw materials unsustainably and the use of a lot of fuel as a source of manufacturing energy to meet the increasing demand in production(Ercantan and Eyupoglu, 2022). Therefore, the important role human resources play in organisational pursuit of sustainability makes it necessary for green practices to be incorporated into the HR functions.

Research Questions
1. How does green human resource management practices influence employee behaviour in manufacturing companies in Nigeria.
2. To what extent does human resource management practices influence environmental sustainability in manufacturing companies in Nigeria.
3. How doesemployee behaviour mediate the relationship between green human resource management practices and environmental sustainability in manufacturing companies in Nigeria.

Research Objections
To investigate the influence of green human resource management (GHRM) practices on environmental sustainability with the mediating role of employee behaviour.

Hypotheses

H01: Green human resource management (GHRM) practices do not significantly influence employee behaviour in manufacturing companies in Nigeria.

H02: Green human resource management (GHRM) practices do not significantly influence environmental sustainability in manufacturing companies in Nigeria.

H03: Employee behaviour does not significantly mediate the relationship between green human resource management (GHRM) practices and environmental sustainability in manufacturing companies in Nigeria.

Literature review

Green Recruitment and Selection

Recruitment and selection are essential aspects in any organisation and it is the centre of every human resource operation, without which, getting the right staff using the right method and other functions of human resources will cease to operate efficiently (Mwita and Kinemo, 2018). The importance of green human resources (GHR) practices is increasing daily as many employers are starting to recognise that having green programs in the organisation can help promote social responsibility among the employees and help retain top talents (Mohammed, 2020). Thus, the need for employees who are environmentally aware, concerned and knowledgeable is gradually increasing. Green recruitment and selection(GRS) are HR processes aimed at attracting job seekers who are dedicated and show competence in contributing to environmental challenges that are related to the organisation (Jamal, Zahid, Martins, Mata, Rahman and Mata, 2021). It is the process of hiring and attracting candidates whose attitudes, knowledge, skills and behaviour conform to the environmental management system of the organisation and who can identify environmental management systems (Don-Baridam and Diri, 2021). Thus, for an organisation to establish environmental policies, it will require having environmentally oriented employees which can be achieved either through recruitment or by providing environmental awareness through training, education, and development of the existing workforce (Arulrajah, Opatha and Nawaratne, 2015).

Green Employee Relation

The concept of GHRM has entered into the employee relations and activities of the organisation (Arulrajah, et al 2015). Green employee relations (GER) promote eco-behaviour that promotes adding value to organisation product and service while utilizing existing financial, human and natural resources (Hewapathirana, Opatha and Prasdini, 2020). GER involve employee involvement and participation in green initiative development, developing training to improve employee skills and knowledge on environmental management and cooperating with stakeholders in all environmental issues (Ahmed, Guo, Qureshi, Raza, Khan and Salam 2021). It centres on providing an environment in which employees impact the decisions and the activities that influence their duties (Shoeb, and Tahir, 2015). It includes employee's participation in environmental responsibility activities such as participating in green suggestion schemes and problem-solving teams, involvement in green decision activities, employees independence to form and work with green ideas, giving direction in green matters, negotiating to achieve green workplace agreements, developing training courses on environmental management, training the workforce to make use of green form of transportation, providing consultation in tackling environmental challenges and working with stakeholders or consumers in all environmental issues (Renwick, Redman and Maguire, 2013).Employee participation in environmental management is crucial to the achievement of environmental success and employee involvement in environmental management has been reported to improve the outcomes of environmental management systems including the efficient usage of resources, reduce waste and the reduction of pollution workplaces (Paille, and Francoeur, 2022).

Green Training and Development

Training and development is essential to any organisation's performance. Organisations aspiring to achieve high performance needs to provide training and developments to its employees which is one of the essential processes of HRM (Adimuthu, et al 2017). When proper training and a good working condition is made available, employees'

performance will be more enhanced and the employees will experience more satisfaction with their jobs. The HRM of any organization is saddled with the responsibility of ensuring that employees get the necessary training, development, relevant skill and knowledge needed to gain and remain at a competitive advantage in the job market (Adimuthu, et al 2017). Green training and development (GTD) is considered to be one of the most important GHRM process that influences the green creativity of the employees and a tool needed by organisations to achieve a successful green management practice (Rawashdeh, 2018). It is a practice that allows employees to acquire environmental management competences and environmental protection skills, which are both critical to attaining environmental objectives (Ercantan, and Eyupoglu, 2020). Green training, compared with traditional training improves employee's productivity in the workplace and enhances employee's responsibilities by considering the environmental impacts of the product life cycle (Xie, Zhu, and Qi, 2020).

Employee Pro-Environmental Behaviour

Employee performance is critical to any organisation's performance; therefore, it is essential for management to have a better understanding of employee behaviour and how crucial and effective it is to organisational management (Laszlo, Dalia and Ojaras, 2020). Employees are the agents that implement the policies the organisation set to achieve; therefore, it is essential for organisations to promote employee pro environmental behaviour, and align such behaviour with organisational green goals and objectives (Shen, Dumont and Deng, 2016). Therefore, employees need to incorporate a green behaviour to achieve the organisation's environmental goal. Having employees with green behaviour is essential to achieving a green organisation, therefore it is important for organisations to hire employees interested in environmental issues, who can help the organisation achieve its environmental goal (Johan and Seyto, 2020).

Environmental Sustainability

The gradual growth in demography, technology, global economic and the misuse of natural resources has led to a rise in environmental problems, which is believed to be a major factor limiting sustainable economic development, which has become an issue of concern to the society (Gracia-Machado and Martinez-Avila, 2019). Awareness of the environment is essential in today's society, it implies that people are not only gradually gaining knowledge about the environment but they are getting acquainted with the sets of values, attitudes, and the skills needed to address problems that are related to the environment (Risvi and Garg, 2020). Sustainable development is not an identical term to environmental development, but a newer concept of economic growth where trades and policies, economic and fiscal policies, agricultural and industrial policies, all aim to inspire development path that are economically, environmentally and socially friendly (Cabral and Lochan-Dhar, 2019). Hence, for manufacturing companies to be environmentally sustained it is essential for the organisation to be pro-environmental.

Methodology

The study adopts descriptive survey research to examine the influence of green human resource management practices on environmental sustainability, with the mediating role of employee behaviour.The variables for GHRM practices are green recruitment and selection, green training and development and green employee relations. The data was obtained through self-administered questionnaires from 362 employees from 3 manufacturing company in Nigeria. 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 respondent. Structural equation model (SEM) was used to measure the relationship between the independent variable, mediating variable and the dependent variable.

Findings

HO1: The results of the structural equation model for the influence of green human resource management practices on employee behaviour showed that coefficients of the independent variables were –0.0135, 0.0844, 0.3966 and 6.073 for GRS, GTD, and GER. Based on the resultant coefficients, the model of GHRM practices, that is, GRS, GTD and GER in influencing employees' behaviour is given below as:

$$\text{emb} = \beta_0 + \beta_1 \text{grs} + \beta_2 \text{gtd} + \beta_3 \text{er} + e \qquad \ldots (4.3).$$

That is, EMB $= 6.073\ 0.0135\ \text{grs} - 0.0844\ \text{gtd}\ 0.3966\ \text{ger} + e \qquad . . (4.4).$

The implication of 4.4 is that a unit change in GRS will lead to a 1.3% change in employee behaviour, a unit change in GTD will lead to 8.44%, change in employee behaviour, while a unit change in GER will lead to 39.66% change in employee behaviour (see Table 1). The computed Z and the associated asymptotic significant probabilities were 0.23 (0.815), 1.40 (0.160) and 8.67 ($p < 0.001$). The implication is that GRS and GTD has no significant influence on employee behaviour since the asymptotic significant probability associated with the tests was not less than five percent (0.05). However, GER have positive significant influence on employee behaviour at a one percent level since the asymptotic significant probability associated with the tests is less than one percent (0.01) the assumed level of significant. Consequently, we reject the null hypotheses (see table 1). The likelihood ration test versus saturated had a computed Chi-square of 0.00. Suggest that the model is good since the model is not different from the saturated model.

Table 1 Structural equation model of the influence of green human resource management practices on employee behaviour.

Number of obs   =   362
Estimation method = ml
Log likelihood   = -1874.479

HO2: The result of the structural equations model (direct effects) showed that coefficients of the independent variables were .2306, .0139,-.1179 and 6.5223 for GRS, GTD and GEM. Based on the resultant coefficients, the model of the variables of GHRM practices, that is, GRS, GTD and GER and constant, in influencing environmental sustainability is given below:

$$\text{ens} = \lambda_0 + \lambda_1 \text{grs} + \lambda_2 \text{gtd} + \lambda_3 \text{ger} + e \qquad \ldots (4.3)$$

Thus: ens $= 6.5223 + .2306\ \text{grs} + .0139\ \text{gtd} + -.1179\ \text{ger} + e. . . (4.4).$

The implication of 4.2 is that a unit change in GRS will cause 23.06% change in environmental sustainability, a unit change in GTD will cause 1.91% change in environmental sustainability and a unit change in GER will cause 11.80% change in environmental sustainability (see Table 2). The computed Z and the associated asymptotic significant probabilities were 3.87 ($p < 0.001$), 0.22 (0.828), 2.20 (0.028) for the influence of GRS, GTD and GER on environmental sustainability. The implication is that GTD has no significant relationship with environmental sustainability since the asymptotic significant probability associated with these tests were not less than five per cent (0.05). However, GRS and GER have positive significant influences on environmental sustainability since the asymptotic significant probability associated with the tests are all less than five percent (0.05) the assumed level of significant. However, while GRS were significant at the one percent level, GER were significant at the five per cent level (see Table 2). Furthermore, GTD and GER were negatively related to the enhancement of environmental sustainability in manufacturing companies in southwest Nigeria.

The likelihood ration test of the model versus saturated had a computed Chi-square of 0.00. Suggesting that the model is good since the model is not different from the saturated model.

Table 2 Structural Equations Model on the Significant Influence of Green Human Resource Management (GHRM) Practices on Environmental Sustainability (Direct Effect)

Number of obs   =   362
Estimation method = ml
Log likelihood   = -1874.479

HO3: The structural equations model for the mediating role of employees' behaviour in the relationship between GHRM practices and environmental sustainability presents the total effects of the influence of GHRM practices, that is, GRS, GTD and GER on employees' behaviour as well as the influence of GHRM practices, that is, GRS, GTD and GER on environmental sustainability.

The influence of the independent variable, that is, GRS, GTD and GERtargeted at employee behaviour showed that coefficients of the independent variables were 0, 0, 0, 0 and 0 for the influence of GHRM practices, that is,GRS, GTD and GER on employee behaviour and constant. Based on the resultant coefficients show that there is no path from GHRM to environmental sustainability through employee behaviour (see table 4.3).

The model of GHRM practices, that is, GRS, GTD and GERand employees' behaviour on environmental sustainability showed that coefficients of the independent variables were 0, -0.0031, 0.02072, and 0.1540 for employees' behaviour, GRS, GTD and GER. Based on the resultant coefficients, the model of GHRM practices, that is, GRS, GTD, GEM and EMB constant, in influencing environmental sustainability is given below:

The model is: $envs = \lambda_0 + \lambda_1 emb + \lambda_2 grs + \lambda_3 gtd + \lambda_6 ger + ens + e$ . . . (4.3)

Thus:$envs = 0\, emb - 0.0031\, grs + 0.0207\, gtd + 0.1540\, ger + e$ . . . (4.4)

The implication of equation 4.4 is that a unit change in employee behaviour will not cause any change in environmental sustainability, a unit change in GRS will lead to a0.31% change in environmental sustainability, a unit change in GTD will lead to a 2.07% change in environmental sustainability and a unit change inGER will lead to a 15.40% change in environmental sustainability (see Table 3).

The computed z statistics and their associated significant probabilities are -0.23 (0.815), 1.38 (0.169), 1.04 (0.299), -0.75 (0.455) and 5.42 ($p < 0.001$) for GRS, GTD, and GER respectively. The implication is that a unit change in only green employee relations is significant in the mediation model. It is significant at the one per cent level while the othervariables, GRS and GTD are not significant since their asymptotic significant probability values are not less than five per cent (0.05). A comparison of the direct effect of GHRM on environmental sustainability and the effects with employee behaviouras the mediator reveals that in the direct effect GRS and GER have significant influences on environmental sustainability while in the mediated effect only GER has a significant influence on environmental sustainability (see Table 3). This means that employee behaviour does not mediate the relationship between green human resource practices and environmental sustainability rather, it has a negative mediating influence on the relationship between GRS and environmental sustainability and environmental sustainability. Consequently, we do not reject the third hypotheses (see Table 3). The likelihood ratio test of the model versus saturated had a computed Chi-square of 0.00. This value was very insignificant. The implication is that the model is not different from the saturated model. This suggest that the model is good fit.

Table 3 Structural equation model of indirect effect of green human resource management practices, employee behaviour and environmental sustainability of manufacturing companies in southwest Nigeria

The equation level goodness of fit, wald's test for equations and stability analysis were employed in this study. The equation level goodness of fit test shows the fitted and predicted variances for employee behaviour to be 0.1519 and 0.0266 respectively resulting in a residual of 0.1253. The correlation between the dependent variables employed and the prediction (mc) was found to be 0.4181 while the Bentler-Rakov squared multiple correlation coefficient was 0.1748. While the the equation level goodness of fit test also show that for environmental sustainabilitythe fitted and predicted variances were 0.1969 and 0.0387 respectively resulting in a residual of 0.1582. The correlation between the dependent variables employed and the prediction (mc) was found to be 0.4433 while the Bentler-Rakov squared multiple correlation coefficient was 0.1965. This value is the same as the overall goodness of fit of the structural equation model. Thus, 17.48% and 19.65% of the variation in the dependent variable, mediating variable and environmental sustainability, is explained by the independent variables, green human resource management practices (see Table 4)

Table 4: Equation-level goodness of fit

mc = correlation between depvar and its prediction
mc2 = mc^2 is the Bentler-Raykov squared multiple correlation coefficient

Table 5 presents the results of the wald's test for equations. The results indicate a computed Chi-square of 88.53 with an associated asymptotic significant probability of $p < 0.001$, indicating that the test is significant and the model is a good fit (see Table 5).

Table 5 Wald tests for equations
Structural equations model
The stability analysis of simultaneous equations indicates that with eigenvalue and modulus values of zero, the stability index is 0 which means that all the eigenvalues lie inside the unit circle. Thus, the model satisfies the stability condition (see Table 6).

Table 6   Stability analysis of simultaneous equation systems
 Eigenvalue stability condition

Structural Equations Model, (2022)
 stability index =   0
 All the eigenvalues lie inside the unit circle.
 SEM satisfies stability condition.

Discussion of Findings
The result of the structural equation model revealed that green recruitment and selection have a positive significant influence on the environmental sustainability of manufacturing companies in Nigeria. This finding is in line with the study carried out by Jeronimo, et al, (2019) on the influence of green HR practices on the organizational rationale for sustainability.They concluded that organisations should recruit employees who are environmentally aware to achieve environmental sustainability. In another study by Renwick, et al (2013), the result show that green recruitment and selection enhances environmental sustainability. Studies by Edeh and Okwurume, (2019) and Rawashdeh, (2018) also indicated that green recruitment and selection are positively associated with environmental sustainability. This result supports the belief that organisation that put into consideration candidates' green awareness and knowledge are likely to attract and hire individuals who are more skilled, competent and knowledgeable in environmental management which will enable the organisation achieve its environmental goals and objectives (Mwita and Kinemo, 2018). The result of this study therefore implies that the organisation put in consideration individuals who are environmentally aware during the recruitment and selection processes of the organisation. However, other practices are not put in place to enhance the behaviour of the employee towards achieving environmental sustainability. The result of the findings also shows that green training and development practices does not influence employee behaviour and environmental sustainability of manufacturing companies in Nigeria. The findings are in line with the study by Rawashdeh, (2018) which shows that green training and development have a weak correlation with environmental sustainability. The result shows that there is a lack of awareness of green training and development and organisations that are aware of green training and development are yet to practice it. The result also indicates that the organisation is not contributing enough towards ensuring that the employees acquire the skills and competencies needed to achieve environmental sustainability. However, Bashirun and Noranee (2020) point out that organisations need to promote environmental sustainability among their employees and ensure that they educate and train their employees on the importance of environmental sustainability to the performance of the organisation. examine the role of green employee relation practices on employee behaviour and environmental sustainability of manufacturing companies in southwest Nigeria. The findings also indicates that green employee relations positively influence employee behaviour. This hypothesis was achieved in hypothesis one as the result of the structural equation model indicates that green human resource management practices influence employee behaviour in manufacturing companies in Nigeria through green employee relations. This result emphasises that employees are the most important asset in any organisation and in other to achieve the environmental goal and objective of the organisation, the organisation needs to involve and engage its employees. In any organisation it is the employees that would drive the green initiative of the organisation. This is consistent with

a study by Karatepe, Hsieh and Aboramadan (2022) that indicated that GHRM enhances employees' perception of organisational support for the environment which in turn fosters employee pro-environmental behaviour. A study by Muisyo and Qin (2021) also supports that employee involvement and engagement have a significant impact on employee pro-environmental behaviour and organisational environmental performance. Finally, the study indicates that employee behaviour has a positive and direct influence on environmental sustainability in manufacturing companies in southwest Nigeria. The findings are consistent with a study by Kim, Kim, Choi and Phetvaroon, (2019) thought that employee's eco-friendly behaviour positively influences organisational environmental performance. Renwick, Jabbour, Muller-Camen, Redman and Wilkinson (2016) were also of the opinion that employee pro-environmental behaviour contributes to organisational environmental performance. Although the findings of the result show that employee behaviour has a positive significant influence on environmental sustainability, there is no indirect path between GHRM, employee behaviour and environmental sustainability. This shows that employee behaviour does not mediate the relationship between GHRM and environmental sustainability in manufacturing companies in Nigeria. However, the organisations can leverage on the good relationship with their employees since green employee relations influence employee behaviour. Therefore, if the organisation incorporates and formulates a GHRM policy, it will influence pro-environmental behaviour in the employees.

Conclusion

In conclusion, a combination of GHRM practices will yield positive environmental results for organisations that aims to address the environmental issues their organisation is faced with. Nevertheless, manufacturing companies in Nigeria are yet to achieve environmental sustainability and from our findings, factors that aid environmental sustainability are yet to be put in place in manufacturing companies in Nigeria. This study, therefore concludes that manufacturing companies in Nigeria should put in place GHRM practices in other to be environmentally sustained.

Recommendation

a) The study recommends that organisations, and not only the manufacturing sector should put in place GHRM practices to improve their environmental performance.

b) Policies geared towards promoting pro-environmental workplace behaviours should be put in place which will encourage employee environmentally friendly behaviour

c) Finally, the government should also take it further to enforce the implementation of environmental policies by putting in place various regulatory policies and formulating a framework that requires not only the manufacturing companies but the corporate world to comply with GHRM.

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Tables

Table 1 Structural equation model of the influence of green human resource management practices on employee behaviour.

Standardized Structural	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
emb <-						
grs	-.0135153	.0577084	-0.23	0.815	-.1266216	.099591
gtd	.0844313	.0601522	1.40	0.160	-.0334649	.2023275
ger	.3965505	.0457636	8.67	0.000	.3068555	.4862454
_cons	6.072958	.7205974	8.43	0.000	4.660613	7.485303
Variance						
e.emb	. 825185	.034669			.7599574	.8960112

Source: Structural Equations Model, (2022)

Table 2 Structural Equations Model on the Significant Influence of Green Human Resource Management (GHRM) Practices on Environmental Sustainability (Direct Effect)

	OIM					
Standardized	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
Structural						
envs <-						
grs	.2306419	.0596131	3.87	0.000	.1138024	.3474814
gtd	.0139139	.064054	0.22	0.828	-.1116297	.1394575
ger	-.1179315	.0536517	2.20	0.028	.0127762	.2230868
_cons	6.522251	.7388418	8.83	0.000	5.074147	7.970354
Variance						
e.envs	.9299771	.0255243			.8812722	.9813738

Source: Structural Equations Model, (2022)

Table 3 Structural equation model of indirect effect of green human resource management practices, employee behaviour and environmental sustainability of manufacturing companies in southwest Nigeria

	OIM					
	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
Structural						
eb <-						
grs	0 (no path)					
gtd	0 (no path)					
ger	0 (no path)					
envs <-						
eb	0 (no path)					
grs	-.0030889	.0131965	-0.23	0.815	-.0289534	.0227757
gtd	.0207194	.0150603	1.38	0.169	-.0087982	.050237
ger	.1539					

Structural equations model.

Table 4: Equation-level goodness of fit

	Variance					
depvars	fitted	predicted	residual	R-squared	mc	mc2
observed						
emb	.1518793	.0265508	.1253286	.174815	.4181088	.174815
envs	.1969479	.0387022	.1582457	.19651	.4432944	.19651
overall			.2296935			

Table 5 Wald tests for equations

	chi2	df	p
observed			
eb	76.69	5	0.0000
envs	88.53	6	0.0000

Structural equations model

Table 6   Stability analysis of simultaneous equation systems

Eigenvalue stability condition

Eigenvalue	Modulus
0	0
0	0

Structural Equations Model, (2022)