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Effect of Green Reward Management Practices and Employee Performance in Food and Beverages Manufacturing Firms in South East Nigeria

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Background

The origin of Green Human Resource Management is linked to the Brundtland Commission which was held in Brazil, Rio de Janeiro, in 1987, and organized to help battle issues surrounding climate change, global warming, and environmental degradation. The aim of the deliberations was on sustainable development and environmental sustainability, for the preservation of limited natural resources for future generations, even while meeting the needs of the present generation. Green Reward Management Practices can be traced to the broader evolution of corporate sustainability and the recognition that organizations have a responsibility to address environmental concerns. The idea of "green human resource management," or "GHRM," arose in reaction to the green movement, which emphasizes social justice, environmentalism, sustainability, and nonviolence. By encouraging and supporting environmentally friendly efforts within firms, GHRM practices seek to foster a green and environmentally conscious mindset among employees. Studies have indicated that GHRM policies improve a company's environmental performance by reducing costs, using less energy, and leaving fewer carbon imprints. Our knowledge of the causes and effects of GHRM is still lacking, especially when it comes to senior managers' eco-innovation and environmental entrepreneurial orientation. To show how GHRM affects performance on an individual, group, and organizational level and to give commercial organizations a long-term financial advantage, a comprehensive model of GHRM is required. All things considered, the increased emphasis on environmental sustainability and the requirement that businesses use green practices has made GHRM more significant in recent years.

ABSTRACT

The study examined the effect of Green Reward Management Practices and Employee Performance in Food and Beverages Manufacturing Firms in Southeast Nigeria. Specifically, the study sought to; examine the effect of green financial reward management on employee output, and evaluate the effect of non-financial reward management on employee satisfaction, of food and beverages manufacturing firms in Southeast Nigeria. A descriptive survey design was utilized for the study. A well-structured questionnaire was used to collect primary data for the study. The questions were designed to be answered in a five-point Likert scale format. The data were analyzed using Statistical Package for Social Sciences (SPSS) version 16.0 to aid in coding, entry, and analysis of quantitative data obtained from the closed-ended questions. Regression relationships among variables of this study were investigated by standardized coefficients and provided significance levels in SPSS software by which the hypothesis is rejected or accepted. ANOVA was used to study. The study revealed shows that at a 5% level of significance, green financial reward management has a statistically significant effect on the employee output of food and beverage manufacturing firms in southeast, Nigeria given that $\beta_1=0.580$; $p<0.05$., non-financial reward management has a statistically significant effect on the employee satisfaction of food and beverage manufacturing firms in southeast, Nigeria given that $\beta_1=0.615$; $p<0.05$. We concluded that the findings underscored the significant influence of Green Reward Management Practices on various dimensions of employee performance within the Food and Beverages Manufacturing Firms in Southeast Nigeria. It was recommended that the intersection of green practices, reward management, and employee performance within the context of the food and beverages manufacturing industry presents an intriguing area for research in Southeast Nigeria that is strongly required because of the significant effect green reward management practice has on employee performance.

Keywords: Green Reward Management Practices; Employee Performance; Food and Beverages Manufacturing Firms; South East Nigeria

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Reward management refers to a company's overall strategy for its payment and reward system for its employees. Rewards from a company can be both monetary and non-monetary. A properly implemented reward management system is generally an important factor in the recruitment and retaining of talented employees. Reward management can encompass salary, bonus pay, benefits, and performance management. A clear reward system within a company also can help motivate existing employees to improve their performance. Positive recognition for their work can help improve both the performance and morale of employees, leading to higher productivity. Reward policies also should be communicated to employees to ensure they are understood and implemented.

Employees are the key resources for any organization. The success or failure of the organization mostly depends on its employees. To be successful or to get well-performed tasks or achieve the desired goals of the company, Employees will be motivated, attracted, and retained in the organization. The key tools or instruments for these are reward management systems of the Organization. Desired performance can only be achieved efficiently and effectively, if an employee gets a sense of mutual gain for the organization as well as for himself, with the attainment of that defined target or goal. Organizations must carefully set the rewards system to evaluate the employee's performance at all levels and reward them whether visible pay for performance or invisible satisfaction. The concept of performance management has given a reward system that contains; needs and goals alignment between the organization and employees, rewarding employees both extrinsically and intrinsically (Armstrong, 2010).

Statement of the Problem

The dynamic state of global business greatly influences how organizations position themselves for performance and profitability. An organization's success is highly dependent on the performance of its employees. Poor employee performance is detrimental to any organization while effective employee performance is a great source of organizational success. In most organizations, rewards are directly linked to employee performance. Employee rewards have been used for decades to recognize, and appreciate employees as a way of enhancing their performance. One of the primary expectations is that the study will reveal a positive correlation between green reward management practices and increased environmental responsibility within food and beverage manufacturing firms. By tying rewards to sustainable behaviors, organizations are likely to adopt and promote eco-friendly practices, such as waste reduction, energy efficiency, and responsible resource management.

As employees become more engaged in their work due to green reward practices and feel a stronger connection to their organization's sustainability goals, it is anticipated that turnover rates will decrease. Satisfied employees are more likely to remain with their current employers, leading to cost savings associated with recruitment and training.

Objective of the Study

The main objective of the study is to examine the effect of Green Reward Management Practices and Employee Performance in Food and Beverages Manufacturing Firms in Southeast Nigeria. The specific objectives sought to;

- i. Examine the effect of financial reward management on the employee output of Food and Beverages Manufacturing Firms in Southeast Nigeria
- ii. Evaluate the effect of non-financial reward management on employee satisfaction of Food and Beverages Manufacturing Firms in Southeast Nigeria

Statement of Hypotheses

The following hypotheses were formulated to guide this study.

- i. Financial reward management does not affect employee output of Food and Beverages Manufacturing Firms in Southeast Nigeria.
- ii. Non-financial reward management does not affect employee satisfaction in Food and Beverages Manufacturing Firms in Southeast Nigeria.

Review of Related Literature

Conceptual Review

Green Reward Management

Green Reward Management is an emerging concept that aims to align sustainability objectives with compensation strategies, fostering environmentally conscious behavior within organizations while rewarding employees for their contributions to sustainability goals. Green Reward Management is rooted in the idea that employees can be incentivized to adopt environmentally friendly practices through the structure of compensation packages. Traditional reward management often revolves around financial incentives and benefits such as salary, bonuses, and promotions. However, as the global community grapples with climate change and resource depletion, companies are recognizing the need to create a more sustainable work environment. The concept of Green Reward Management encompasses a range of strategies that connect employee rewards with environmentally responsible behavior. This can include:

- i. **Performance Metrics:** Introducing sustainability-related performance metrics and targets as a part of an employee's key performance indicators (KPIs). These metrics could involve energy and resource conservation, waste reduction, and contribution to sustainable innovation.
- ii. **Recognition and Rewards:** Acknowledging and rewarding individuals or teams for their sustainable initiatives and accomplishments. This can involve both monetary rewards and non-monetary recognition, such as certificates or additional time off.
- iii. **Skill Development:** Offering opportunities for employees to enhance their sustainability-related skills and knowledge, with the promise of career advancement or increased compensation upon completion.
- iv. **Green Bonuses:** Providing bonuses or incentives tied to achieving specific sustainability milestones or targets, fostering a sense of collective responsibility among employees.
- v. **Sustainable Compensation Structures:** Developing compensation structures that reflect an employee's commitment to sustainability. For instance, employees who consistently contribute to green initiatives could be eligible for increased pay raises or accelerated career progression.
- vi. **Employee Participation:** Involving employees in the decision-making process regarding sustainability goals and the design of green reward initiatives, which can increase engagement and ownership.

Benefits of Green Reward Management:

- i. **Improved Environmental Impact:** By linking rewards to sustainable actions, organizations can encourage employees to adopt environmentally friendly practices both at work and in their personal lives, collectively contributing to a reduced carbon footprint.
- ii. **Enhanced Employee Engagement:** Employees often find purpose and motivation in contributing to causes greater than themselves. Green Reward Management aligns personal values with workplace objectives, leading to increased job satisfaction and engagement.
- iii. **Attracting and Retaining Talent:** As the workforce becomes more environmentally conscious, companies that prioritize sustainability are more appealing to prospective employees. Green Reward Management can serve as a competitive advantage in attracting top talent.
- iv. **Innovation and Efficiency:** Encouraging employees to think creatively about sustainability can lead to innovative solutions for operational efficiency, cost reduction, and the development of environmentally friendly products and services.
- v. **Positive Corporate Image:** Organizations that actively promote sustainable practices through their reward management strategies can enhance their reputation, appealing to environmentally conscious consumers and investors.

- vi. **Long-Term Perspective:** Green Reward Management promotes a long-term view of business success by aligning short-term incentives with the organization's broader sustainability goals.

Benefits of Green Reward Management

- i. **Alignment with Organizational Values:** Green Reward Management reinforces the organization's commitment to sustainability and environmental stewardship. It ensures that employees' actions and contributions are in line with the company's values and long-term goals.
- ii. **Enhanced Employee Engagement:** Recognizing and rewarding employees for their contributions towards sustainability fosters a sense of purpose and engagement. Employees are more likely to feel motivated when they see their efforts making a positive impact on the environment and society.
- iii. **Talent Attraction and Retention:** In an era where individuals increasingly seek purpose-driven work, organizations that prioritize sustainability are more attractive to potential employees. Moreover, employees are more likely to stay with a company that values their efforts towards a better world.
- iv. **Innovation and Creativity:** Green Reward Management encourages employees to think innovatively about sustainable solutions, leading to a culture of creativity and problem-solving that extends beyond environmental concerns.
- v. **Positive Public Image:** Organizations that implement sustainable practices, including Green Reward Management, often enjoy a better public image. This can lead to increased customer loyalty and stakeholder support.
- vi. **Cost Savings:** Many sustainable practices directly contribute to cost savings in the long run. Rewarding employees for their efforts in these areas not only motivates them but also contributes to the organization's bottom line.

Implementing Green Reward Management

- i. **Define Sustainability Goals:** Clearly articulate the sustainability objectives that the organization aims to achieve. These goals will serve as a foundation for aligning the reward system with the larger mission.
- ii. **Incorporate Sustainability Metrics:** Integrate sustainability metrics into employee performance evaluations. This could include criteria related to resource conservation, waste reduction, and participation in sustainability initiatives.
- iii. **Communication and Training:** Educate employees about the new Green Reward Management approach, its objectives, and how their contributions will be assessed. Provide training on sustainable practices to empower employees to actively participate.
- iv. **Regular Assessment and Feedback:** Continuously monitor and assess the effectiveness of the Green Reward Management program. Gather feedback from employees to make improvements and adjustments as needed.
- v. **Recognition Variety:** Implement a range of rewards, including monetary incentives, additional time off, career advancement opportunities, and public recognition. This ensures that various employee preferences are catered to.
- vi. **Transparency and Fairness:** Ensure that the reward system is transparent, consistent, and fair. Employees should understand how their sustainability contributions are being evaluated and rewarded.

Green Reward Management represents a forward-thinking approach to aligning organizational goals with sustainability imperatives. By integrating environmentally and socially responsible practices into the reward structure, organizations can create a culture that prioritizes both employee recognition and the well-being of the planet. This approach not only strengthens employee engagement and commitment but also positions the organization as a responsible corporate citizen in the eyes of stakeholders. As organizations continue to navigate

the challenges of the 21st century, Green Reward Management stands out as a strategy that embodies progress, purpose, and positive impact.

The Significance Impact of Reward Management on Employee Performance

According to Baker (2002), the output or performance of an employee is a combination of effort, ability, and an error margin, providing for all uncontrollable factors, at least from the employee's perspective. He stated that given the employee's private information, the employer must depend on performance measures to estimate the effort the employee has put in. Performance measures are selected based on

- (a) strategically related to the organization's goal and,
- (b) controllability by the employee (Suri, 2016).

The performance measure is used to evaluate the performance of the employee, which forms the basis for determining the amount of variable monetary compensation an employee will receive and for making career decisions. According to Baker fixed compensation, as opposed to variable compensation, does not induce effort and its role is limited to attract and motivate. In practice, completely fixed compensation that is unrelated to performance is extremely rare, for instance, the probability of being fired creates an incentive to perform. Baker again identified two forms of fixed compensation primary compensation and secondary compensation. In primary compensation, he stated that it consists of monetary payments for employees whereas in secondary compensation, the non-monetary benefits such as a company car, cell phone, and pension benefits (Suri, 2016).

Financial Rewards

According to Armstrong (2012), financial rewards comprise all rewards that have a monetary value and add up to total remuneration. These rewards include base pay, merit pay, skills-based pay, incentives, and service-related pay, bonuses, financial recognition schemes, and benefits such as pensions, sick pay, and health insurance (Armstrong, 2010; Armstrong, 2012). Several arguments have been forwarded regarding the effect of financial rewards. Some authors think financial rewards work while others think that they do not achieve the intended results. Armstrong (2012) states that "a vociferous chorus of disapproval has been heard on the incentive effect," Kohn (1993) states that financial rewards are bribes in the workplace and they don't simply work." Sonawane (2008) in his research found that financial rewards had a short-lived effect on employee motivation.

Kohn (1993) even states that rewards undermine the processes they intend to enhance according to research findings. According to Kohn (1993), "research suggests that by and large rewards succeed at securing one thing only: temporary compliance" Accordingly rewards do not affect long-term changes. So, the argument is still on whether these rewards work. Accordingly, rewards do not create a lasting commitment, they merely and temporarily change what we do Kohn (1993). What Kohn (1993) observes is that "the more a manager stresses what an employee can earn for good work, the less interested that employees will be in the work itself." He also claims that studies have conclusively shown that if employees expect to get a reward for completing a task, they do not perform as well as those who don't expect a reward at all.

Non-financial Rewards

Non-financial Rewards Researchers like Daniel (2009) showed their apprehensions about financial rewards. Polemics of financial rewards pointed towards the negative effects of financial rewards like a decrease in intrinsic motivation as it can cause short-term thinking and more fraud (Morrell, 2011). Morrell (2011) added that the significance of both financial and non-financial rewards is imperative as there are diverse jobs in the industry where one kind of reward does not accomplish the purpose. Therefore, with time the prominence of non-financial rewards (also called relational, intangible, and/or non-monetary) is increasing. The early findings of Drucker (1954) about the significance of rewards are consistent with (Ryan & Deci, 2000). Drucker (1954) suggested that workers or managers, in business or outside need rewards for pride and prestige. Further upheld that financial benefits are not a single major source of optimistic motivation even though dissatisfaction with them inhibits performance conversely, nonfinancial incentives cannot compensate for displeasure with economic rewards (Drucker, 1954). Whilst proposing ingredients of effective performance Jensen, McMullen, and Stark (2007) regard non-financial rewards as crucial in helping an organization stand out as a top employer, and also have the dual impact of increasing engagement among

employees. Similarly, Brewster and Mayrhofer (2012) highlighted the importance of nonfinancial rewards by revealing their role in the enhancement of job satisfaction of employees, their commitment, and performance.

Employee Performance

Employee performance in the organizational context, performance is usually defined as the extent to which an organizational member contributes to achieving the goals of the organization. Employees are a primary source of competitive advantage in service-oriented organizations. In addition, a commitment performance approach views employees as resources or assets and values their voice. Employee performance plays an important role in organizational performance. Employee performance is originally what an employee does or does not do. Performance of employees could include quantity of output, quality of output, timeliness of output, presence at work, and cooperativeness (Güngör, 2011).

Employee satisfaction is one of the many factors in the organization which necessary to achieve good organizational performance. Deci and Ryan (2005) in the self-determination theory argue that financial incentives increase extrinsic motivation and reduce intrinsic motivation by undermining the need for autonomy and self-determination (Johnson, and Johnson, 2001) resulting in effective performance. Negative effects on intrinsic motivation only occur in confined conditions, for example when the reward is introduced once or has no relation to performance (Chin-Ju, 2010). Indeed, Eisenberger and Shanock (2003) reported that financial incentives can increase intrinsic motivation if it is instigated by arises from an interest in performing the task. On the other hand, non-financial rewards such as learning development and promotion have different effects on employee performance. Employees feel empowered when they get training support from the institutions they work for and this allows them to perform to be retained and enjoy the benefits. The link between employee training and improved performance on the job is, however, not automatic. It depends on how much of the skills acquired in training are applied on the job and how long this is sustained. Employee promotion influences employees' performances since promotions come with various benefits. Many previous studies have found that promotional opportunities have a significant positive effect on employee performance (Williamson et al 2009).

Employee Satisfaction

Tangthong, (2014) defined job satisfaction as one's feelings or mood regarding the nature of their work and is a positive emotional feeling, the result of one's evaluation of their work and work experience by comparing what you expect from your job and what you get from it, as well as a function of the range of specific satisfactions and dissatisfactions that he/she experiences concerning the various dimensions of the job. Reference (Fajana, 2002), refers to job satisfaction as the general job attitudes of employees. He divided job satisfaction into five major components including; attitude toward the workgroup, general working conditions, attitudes toward the organization, monetary benefits, and attitude toward supervision which he said is intricately connected with the individual's state of mind about the work itself and life in general. Robbins and Judge (2008) described job satisfaction as a positive feeling that an individual has about his/her job, based on the evaluation of the characteristics of the job. In most organizations, poor reward systems lead to less satisfaction and, in turn, produce a very low organizational commitment (Caruth, and Handlogten 2001). Increasingly, organizations are realizing that to take advantage of employee job satisfaction, they must establish a fair balance between the employee's contribution to the organization and the organization's contribution to the employee (Turinawe, 2011). Highlighting this point, Pratheepkanth, (2011), opines that employees cannot be satisfied with their jobs unless they are motivated by effective reward systems.

Financial Rewards and Employee Performance

Financial rewards are monetary incentives that an employee earns as a result of good performance. These rewards are aligned with organizational goals. When an employee helps an organization in the achievement of its goals, a reward often follows. All financial rewards are extrinsic. Extrinsic motivation is based on tangible rewards, such as pay raises, bonuses, and paid time off. Financial reward is considered the most functional tool for managers to motivate employees to move successfully and influence their behavior to achieve greater organizational goals. On the other hand, failure in financial rewards would influence the effectiveness of skilled employees to be limited if they are not motivated (Boselie et al., 2015).

Effect of Non-Financial Rewards on Employee Performance

The modern-day employee is no longer simply motivated by their salary and, for this reason, organizations regularly attempt to incentivize workers with non-financial methods. This rapidly evolving trend was described by the Hay Group as ‘the primary vehicle in attracting and retaining talent’ and a ‘key motivator and driver for employee engagement’ and hence any organization neglecting this motivation technique is failing to maximize their employee’s potential (Schlechter et al., 2015). Bessette (2014) argues that while employee pay and benefits are important and setting them at low levels can cause significant issues, research has consistently demonstrated that non-financial rewards can be just as important. While financial rewards are important as a means of providing substantial recognition of effort or contribution, numerous studies have concluded that for those with ‘satisfactory’ salaries, non-financial rewards are more effective than additional salary payments in supporting long-term Employee engagement (Vidal-Salazar et al., 2016). Indeed, a recent McKinsey Quarterly survey underlines this theme on ways to more effectively motivate and engage with Employees. Respondents to the survey indicated that non-cash rewards such as praise from an immediate Manager, additional time off, or an opportunity to lead a project were viewed as more effective motivators than the three highest-rated financial incentives listed: cash bonuses, increased base pay, and stock or stock options (Drewhurst, et al., 2009).

According to Adoko (2015), the global financial crisis left organizations with an unpleasant dilemma; they had to cut costs, i.e. reduce salaries/lay off workers, but also demand more work from their employees, to survive in a challenging environment. This led managers to pursue non-financial rewards to motivate their employees cost-effectively. Ajmal et al., (2015) opine that effective non-financial incentives for employees reach out and touch the emotions to make the employee feel welcomed, appreciated, and valued. Employees respond well to non-financial incentives but be careful that they do not come off as cheap or thoughtless. Companies need to remember that employees “get” why companies are cutting costs. That said, non-financial incentives for employees cannot feel or look cheap. If they do, they will be more detrimental than helpful because they breed resentment (Kathure, 2014).

Theoretical Review

Equity Theory

This theory was propounded by Adams in 1963. The Equity Theory proposes that individuals who perceive themselves as either under-rewarded or over-rewarded will experience distress and that this distress leads to efforts to restore equity within the relationship. The theory focuses on determining whether the distribution of resources is fair to both relational partners. In any organization, an employee wants to feel that their contributions and work performance are being rewarded. If an employee feels underpaid then it will result in the employee feeling hostile towards the organization and perhaps their co-workers, which may result in the employee not performing well at work anymore. It is the subtle variables that also play an important role in the feeling of equity. Just the idea of recognition for job performance and the mere act of thanking the employee will cause a feeling of satisfaction and therefore help the employee feel worthwhile and have better outcomes.

Equity theory consists of four propositions whereby; Individuals seek to maximize their outcomes. Groups can maximize collective rewards by developing accepted systems for equitably apportioning rewards and costs among members. Systems of equity will evolve within groups, and members will attempt to induce other members to accept and adhere to these systems. The only way groups can induce members to equitably behave is by making it more profitable to behave equitably than inequitably. Thus, groups will generally reward members who treat others equitably and generally punish members who treat others inequitably. When individuals find themselves participating in inequitable relationships, they become distressed. The more inequitable the relationship, the more distress individuals feel. According to equity theory, both the person who gets “too much” and the person who gets “too little” feel distressed. The person who gets too much may feel guilt or shame. The person who gets too little may feel angry or humiliated. Individuals who perceive that they are in an inequitable relationship attempt to eliminate their distress by restoring equity. The greater the inequity, the more distress people feel and the more they try to restore equity (Walster, Traupmann, and Walster, 1978).

Expectancy Theory

Vroom's (1964) Expectancy theory proposes that an individual will decide to behave or act in a certain way because they are motivated to select a specific behavior over other behaviors due to what they expect the result of that selected behavior will be. In essence, the motivation of the behavior selection is determined by the desirability of

the outcome. However, at the core of the theory is the cognitive process of how an individual processes the different motivational elements. This is done before making the ultimate choice. The outcome is not the sole determining factor in deciding how to behave. Expectancy theory is about the mental processes regarding choice, or choosing. It explains the processes that an individual undergoes to make choices. This theory emphasizes the need for organizations to relate rewards directly to performance and to ensure that the rewards provided are those rewards deserved and wanted by the recipients. Victor H. Vroom (1964) defines motivation as a process governing choice among alternative forms of voluntary activities, a process controlled by the individual. The individual makes choices based on estimates of how well the expected results of a given behavior are going to match up with or eventually lead to the desired results. Motivation is a product of the individual's expectancy that a certain effort will lead to the intended performance, the instrumentality of this performance to achieve a certain result, and the desirability of this result for the individual, known as valence.

Empirical Review

Victor and Kathaluwage (2019) conducted a study on the impact of Non-financial Rewards on Employee Performance in selected finance companies in Batticaloa District, Sri Lanka. Questionnaires and descriptive and inferential statistics were used. The results revealed that non-financial rewards including career advancement, recognition, and achievement had a significant positive impact on employee performance.

Zaha, et al. (2020) conducted a study on the impact of the rewards system on employee motivation in the Sultanate of Oman. A stratified sampling technique was used for this study. The results revealed that low motivation in the workplace is caused due to poor reward systems.

Bassey (2021) conducted a study on the effect of financial rewards on employee turnover and job performance in tertiary institutions in Cross River State, Nigeria. A survey-descriptive design was adopted for the study. The results revealed that there was an overall employee' better job performance as a result of financial rewards.

Chukwuma, et al. (2022) conducted a study on the effect of the reward system on employee performance in Oyi, Anambra State. A survey method was adopted for this research. The results revealed that the reward system also influences the motivation of employees which consistently has an impact on their productivity.

Methodology

The study adopted a survey research design. The data of the study are of two kinds; primary and secondary data. The study was located within the Southeastern part of Nigeria concerning seven manufacturing firms. A sample size of 236 was drawn from a population of 574 employees of the selected firms. A well-structured questionnaire was used to collect primary data. Tables, percentages, frequencies, and mean were used as the analytical tools; while regression analysis was used to test the formulated hypotheses at the alpha level set at 0.05.

Result

Multicollinearity

We looked at the variance inflation factor (VIF) for each variable in the CFA and regression findings to check for multicollinearity of employee engagement practices on customer loyalty mediated by employee satisfaction; in food and beverage companies in Southeast, Nigeria. The results show no multicollinearity issue in the current study because all the cut-off values are well below 10 (Hair et al., 2010). Thus, the initial screening tests confirm that there are no potential issues with data that may pose a threat to the validity and reliability of the model.

Confirmatory factor analysis (CFA)

The component structure was established, items with standardized factor loading below the suggested threshold were removed, and the measurement constructs' reliability and validity were evaluated using CFA in SmartPLS 4.0. First, the study assessed the measuring model to check the constructs' validity and reliability. The study established convergent and discriminant validity, which supported the measurement model's validity. The average variance extracted (AVE) was used to evaluate convergent validity. The study backs up the recommendation made by Hair et al. (2010) for AVE values above 0.05. If the AVE is more than 0.05, the variance of the relevant concept is greater than the variance of the error term. Similar to how the AVE values for the constructs are higher than the values of

the squared correlation of the constructs, the discriminant validity of the constructs is also supported (Hair et al., 2010). All items and constructions have Cronbach alpha values more than 0.7, as recommended by (Peterson 1994). Thus, satisfying the minimum criteria for the fitness of measures gives credibility to the results of this study.

Table 1: Validity and Reliability Test

Latent Variables	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Green Financial Reward Mgt	0.721	0.736	0.763	0.459
Employee Output	0.782	0.783	0.852	0.536
Non-financial reward mgt	0.654	0.726	0.772	0.426
Employee Satisfaction	0.705	0.762	0.799	0.416

Table 2: Validity of the construct items

Construct	Factor Loadings
Green Financial Reward Management	
GFR1	0.749
GFR2	0.841
Employee Output	
EO1	0.626
EO2	0.239
Non-Financial Reward Management	
NFR1	0.697
NFR2	0.854
Employee Satisfaction	
ES1	0.763
ES2	0.822

Discriminant Validity

For the purpose of this study, HTMT_{0.90} and Fornell Lacker was used to assess discriminant validity.

Table 3: Heterotrait-Monotrait Ratio (HTMT)

	GFR	EO	NFR	ES
GFR				
EO	0.813			
NFR	0.675	0.783		
ES	0.806	0.663	0.638	

GFR= Green financial Reward, EO = Employee Output, NFR = non-financial reward management, ES = Employee satisfaction

Table 4: Fornell Lacker

	GFR	EO	NFR	ES
GFR	0.678			
EO	0.655	0.732		
NFR	0.5605	0.556	0.652	
ES	0.529	0.521	0.397	0.645

Result of confirmatory factor analysis shown in table 3 supports the empirical evidence of the uniqueness of most of the variables. It is pertinent to state that the above table does not indicate discriminant validity problems according to HTMT_{0.9} criterion. This implies that the HTMT criterion did not detect collinearity problem among

latent construct. Table 3 also shows the relationships among the study variable as it regards each study research questions, obviously the result suggests a strong and positive relationship for all the research questions.

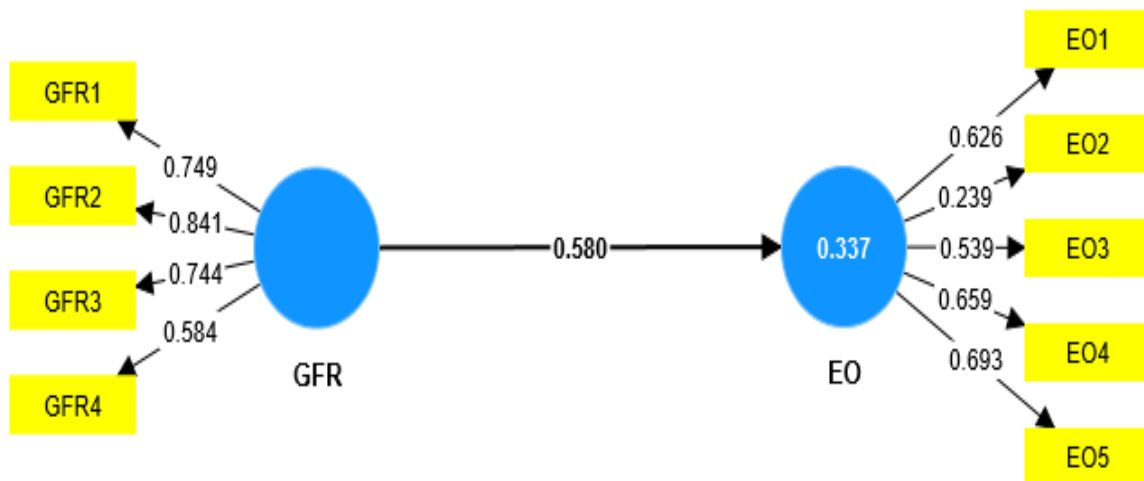


Fig 1: The Relationship between green financial reward management and employee output of food and beverages manufacturing firms in southeast, Nigeria.

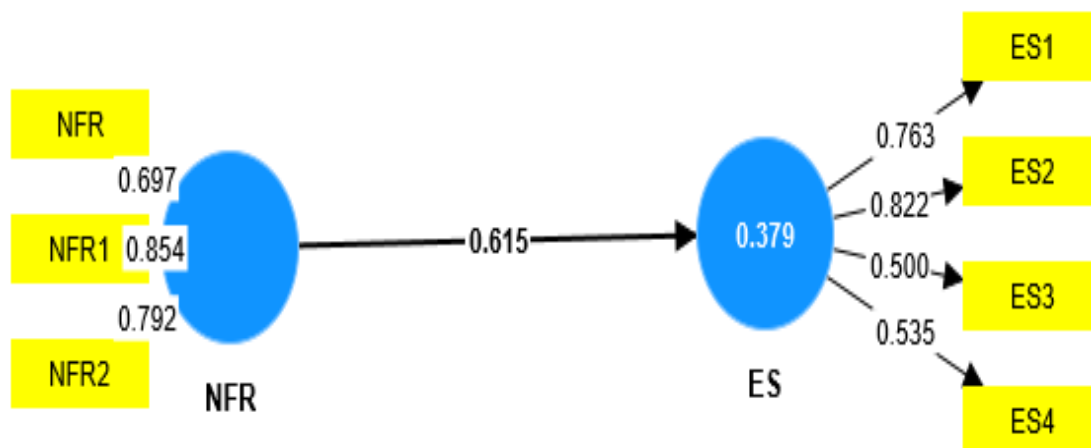


Fig 2: The Relationship between non- financial reward management and employee satisfaction of food and beverages manufacturing firms in southeast, Nigeria.

Structural models

In this work, structural models were used to examine a variety of hypotheses. Bootstrapping is advised to produce accurate and trustworthy results because this research's theoretical framework contains multiple independent variables. This study tested the hypotheses with bootstrapping 5000 at 95% bias-corrected confidence interval for a two-tailed significance p-value. Standard errors are estimated by testing for bootstrapping using resampling from the observed sample. According to (Cameron and Trivedi 2010), the main assumption is that a subsample obtained through bootstrapping from the observed sample (i.e., the original sample of the study) has the same relationship to the observed sample as the observed sample has with the entire population.

In Smart-PLS, to observe the effects of independent variables on the dependent variable, normally two steps followed are measurement model and structural model. Some of the criterions, such as construct validity and reliability already discussed above. In addition to that in the structural modelling equation, R square is also shown for the predictive ability of independent variables on the dependent variables. The value of R-Squared for the models

based on the objective are (0.306, and 0.433) indicates that 3% variation in Food and Beverages manufacturing firms, is caused by the relationship between financial reward and employee output given employee performance as the mediating variable. Similarly, 43.3% variation in Food and Beverages manufacturing firms is caused by the relationship between non-financial reward and employee satisfaction. The model fit was tested for the two models using SRMR value which is 0.07 and 0.011 respectively. This means that the model is a good fit.

Testing of Hypothesis

Hypothesis One

H₀₁: Green financial reward management does not have a significant effect on the employee output of Food and Beverages Manufacturing Firms in Southeast Nigeria

Table 5: The Direct effect of green financial reward management on employee output of food and beverage manufacturing firms in Southeast Nigeria

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T-statistics (O/STDEV)	P values
Green financial reward management -> Employee output.	0.580	0.602	0.093	6.262	0.000

Table 5 shows that at 5% level of significance, green financial reward management has a statistically significant effect on the employee output of food and beverage manufacturing firms in southeast, Nigeria given that $\beta_1 = 0.580$; $p < 0.05$.

Hypothesis Two

H₀₂: Non-financial reward management have no significant effect on employee satisfaction of Food and Beverages Manufacturing Firms in Southeast Nigeria.

Table 6: The Direct effect of non-financial reward management on employee satisfaction of food and beverages manufacturing firms in southeast, Nigeria

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T-statistics (O/STDEV)	P values
Non-financial reward management -> Employee satisfaction	0.615	0.638	0.074	8.326	0.000

Table 6 shows that at 5% level of significance, non-financial reward management has a statistically significant effect on the employee satisfaction of food and beverage manufacturing firms in southeast, Nigeria given that $\beta_1 = 0.615$; $p < 0.05$.

Discussion of Findings

The study aimed at investigating the effect of Green Reward Management Practices and Employee Performance in Food and Beverages Manufacturing Firms in Southeast Nigeria. The result of HTMT in table 3 indicates that the variables are correlated however there was no presence of multicollinearity within the variables. Tables 5 and 6 indicate that at 5% level of significance there is statistically significance positive effect of the dependent variable (green financial reward management and non-financial reward management) on the independent variable (employee output and employee satisfaction respectively) of food and beverages manufacturing firms in southeast, Nigeria. However, the result also indicated that at 5% level of significance, hypothesis four was not significant, which implies that pay structure has no significant effect on the employee turnover of food and beverages manufacturing firms in southeast, Nigeria.

Conclusion

In conclusion, the comprehensive analysis of the effect of Green Reward Management Practices on Employee Performance in Food and Beverages Manufacturing Firms in Southeast Nigeria reveals a multi-faceted relationship between sustainable reward strategies and various aspects of employee behavior and outcomes. The findings from this study shed light on the nuanced impacts of financial reward management and non-financial reward management, on employee performance and satisfaction within the context of the food and beverages manufacturing industry. Green financial rewards, including incentives for sustainable behavior and eco-friendly practices, have been shown to positively influence employee output. Secondly, the Non-Financial Reward Management on employee satisfaction was evident. This highlights the importance of a holistic approach to rewards, which encompasses both financial and non-financial elements, in fostering a positive work atmosphere.

Recommendation

Organization in south east and the entire manufacturing firms across Nigeria should endeavor to place concern on the green reward management practice since it has positive effect on employee performance. To investigate these dynamics comprehensively, the following research recommendations are proposed:

- i. Research should be conducted to empirically assess the impact of financial reward on employee productivity in food and beverages manufacturing firms. This could involve analyzing data from firms that have implemented green bonus structures or profit-sharing models based on environmental performance.
- ii. A qualitative exploration of the influence of non-financial rewards (e.g., recognition, flexible work arrangements, skill development opportunities) on employee satisfaction should be undertaken. This could involve in-depth interviews, focus groups, or surveys to understand how green-oriented non-financial rewards contribute to employees' overall job satisfaction and motivation.

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