GREEN ORGANIZATIONAL CULTURE AND COMPETITIVE ADVANTAGE OF BREWERIES IN SOUTH-EAST NIGERIA

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Abstract

As sustainability becomes an increasingly critical factor in business strategy, organizations are adopting green practices to not only contribute to environmental conservation but also enhance their competitive advantage. The study assessed the impact of green organizational practices on competitive advantage in South-East Nigeria. This study employed a cross-sectional survey research design. The study targeted a population of 453 employees, from which a sample of 205 participants was selected using Krejcie and Morgan's sample size determination formula. Data was collected through a structured questionnaire, using a five-point Likert scale. Data analysis involved both descriptive statistics and multiple regression analysis. Findings showed that green orientation and training has the strongest effect, with a standardized coefficient of 0.529, followed by green performance appraisal (0.314) and green rewards and compensation (0.130). One implication of the study is that firms that integrate green practices into their core strategy are likely to gain a competitive edge, attracting eco-conscious consumers and improving employee performance. The integration of green practices into organizational culture significantly contributes to competitive advantage, positioning organizations for long-term sustainability and growth. Organizations should implement green rewards and compensation structures that not only incentivize environmental performance but also enhance employee satisfaction and engagement in green practices.

Keyword: Green organizational culture, competitive advantage, breweries

Introduction

The industrial revolution introduced several transformations to human civilisation across various regions of the globe. Industry and technology have become essential elements of contemporary human existence. In addition to the numerous conveniences provided, the environmental impact has emerged as an indisputable consequence of the elevated level of industrial activity (Rosyanti et al., 2023). This syndrome is increasingly alarming and lethal, posing a direct or indirect threat to human survival if not addressed judiciously (Yasir et al., 2020). Instances of environmental degradation have generated significant global public concern, prompting numerous countries to urge company owners to swiftly embrace eco-friendly practices and pursue sustainable development (Umrani et al., 2020). The beverage industry is among the sectors with the most substantial environmental impact.Different operational management decisions significantly affect the environment, including regulations for packaging, waste management, and the use of raw materials. This industry experiences substantial market demand, leading to significant growth through annual product diversification. This industry is asserted to be an industry that generates substantial waste and consumes significant energy (Junsheng et al., 2020). Consequently, the beverage industrymust

implement strategies that effectively promote environmental protection. The organisation mandates that all staff engage in ecologically sustainable practices (Sharma et al., 2021).

Recognising their obligation to reduce the adverse effects of their operations, socially responsible enterprises are implementing strategies to enhance sustainability, environmental well-being, and safety (Kleindorfer et al., 2005; Porter & Kramer, 2006). Implementing environmentally sustainable practices may be perceived as a financial encumbrance, and green investments frequently entail risk and prolonged maturation (Agyabeng-Mensah et al., 2021; Farahani et al., 2018). To attain their environmental goals and foster a sustainable culture, organisations have adopted green organisational culture, which includes practices such as green recruitment, green training, and green performance management. A green organizational culture is the organization's shared values, beliefs, and practices that prioritize environmental sustainability across its operations, employee behaviours, and corporate social responsibility initiatives. The goal of fostering a green culture is not only to meet environmental goals but also to gain a competitive advantage in the market. By recruiting environmentally conscious personnel possessing requisite abilities, companies can advance their sustainability projects.

Furthermore, providing staff with environmental training has proven advantageous in attaining ecological goals by recognising their commitment to sustainability. Prior research indicates that green training positively influences environmental performance by assisting organisations in attaining their ecological goals through incentivising employees for their commitment to sustainability (Farahani et al., 2018). Incorporating environmental performance indicators into the performance management system promotes environmentally responsible conduct among employees (Renwick et al., 2013).

The link between green orientation, training, and green performance appraisal indicates that organisations that provide their employees with training on environmental sustainability, alongside technical skills, are more likely to enhance both work performance and adherence to organisational environmental initiatives during employee evaluations (Kissi et al., 2024). It indicates that employees exposed to green environmental issues during training and orientations will perform better on these concerns in performance evaluations than those who were not exposed.

The brewing industry in South East Nigeria is increasingly facing pressure to adopt environmentally sustainable practices due to rising concerns about environmental impact and regulatory compliance. However, there is limited empirical research on how green organizational culture influences competitive advantage in this industry. While many breweries are implementing green initiatives, the specific impact of green orientation and training, green performance appraisal, and green rewards and compensation on competitive advantage remains underexplored. This study aims to examine how these elements of green organizational culture affect the competitive advantage of breweries in South East Nigeria, providing insights into how environmentally sustainable practices can contribute to enhanced operational efficiency, brand reputation, and overall business success in the region.

The general objective of the study is to examine the effect of green organizational culture on competitive advantage of breweries in South East Nigeria. The specific objectives are to; determine the effect of green orientation and training on competitive advantage of breweries in South East Nigeria; explore the effect of green performance appraisal on competitive advantage of breweries in South East Nigeria and to ascertain the effect of green rewards and compensation on competitive advantage of breweries in South East Nigeria.

Literature Review

Theoretical Review

Theory of Planned Behaviour (TPB)

One theory that reflects green organizational culture is the Theory of Planned Behaviour (TPB), developed by Icek Ajzen in 1985. This theory posits that an individual's behavior is influenced by their intentions,

which are shaped by three key factors: attitudes, subjective norms, and perceived behavioral control. In the context of green organizational culture, TPB can explain how employees and managers are likely to adopt environmentally sustainable practices. When an organization promotes sustainability and eco-friendly initiatives, employees' attitudes toward green behaviors, such as recycling or energy conservation, become more positive, leading to higher engagement with these practices. A positive attitude towards sustainability is a crucial driver for employees to act in alignment with green organizational values.

Furthermore, TPB emphasizes the role of subjective norms, which are the social pressures to engage in certain behaviors. In a green organizational culture, employees are influenced by organizational policies and leadership promoting environmentally friendly practices. If peers and leaders emphasize sustainability, employees are more likely to adopt green behaviors to conform to these expectations. Additionally, perceived behavioral control refers to an individual's belief in their ability to perform a behavior. When employees feel supported by the organization—through training, resources, and clear guidance on how to implement green initiatives—they are more likely to engage in sustainable actions. Therefore, TPB provides valuable insights into how organizations can build a culture of sustainability by shaping employees' attitudes, fostering positive norms, and ensuring they have the necessary resources to act sustainably.

Green Organizational Culture

A green organisational culture encompasses a collection of beliefs, concepts, and assumptions pertaining to the environment, which manifest in the behaviours of its members (Hadjri et al., 2019). They deemed that human resource management plays a crucial role in embracing this culture and reinforcing its principles. Green culture is regarded as an environmental ideology shaped by the efforts of organisations based on their views of economic and sustainable development (Chandra et al., 2021).

Green culture is the whole perspective of an organisation that considers its social and ecological surroundings. The green organisational culture comprises assumptions, attitudes, symbols, and other elements that embody the commitment to sustainable practices (Sharma et al., 2021). Tahir et al. (2019) expanded the concept to include environmental culture, friendly culture, green consciousness, and sustainable culture. The organisation is striving for environmental sustainability.

Organizations that embrace sustainability and environmental consciousness are often better positioned to differentiate themselves, attract environmentally conscious customers, and reduce operational costs. Moreover, the commitment to sustainability often leads to innovations in product development, process improvements, and operational efficiencies. These factors can enhance long-term profitability, improve brand reputation, and attract top talent, thus giving firms a competitive edge.

The contemporary environmental concerns and risks compel us to consider strategies for survival and the conservation of remaining natural resources for ourselves and future generations. This issue is not the sole responsibility of one societal entity; sustainable development difficulties necessitate collaborative efforts from both the public and commercial sectors (Park & Li, 2021). Organisations recognise that integrating sustainability into HR operations can mitigate environmental risks (Aggarwal & Agarwala, 2023). The green culture is arguably a lifestyle adopted out of necessity, since it encompasses new behaviours and ideals aimed at fostering harmony and coexistence with the environment, while also seeking to conserve and enhance it.

Green Orientation and Training

Green orientation refers to the strategic focus an organization places on adopting sustainable practices and environmental goals. This might include initiatives like reducing carbon footprints, implementing renewable energy solutions, and creating eco-friendly products. Training is a key element in instilling this orientation in employees at all levels. Proper training programs ensure that employees understand the significance of green practices and how they can contribute to the company's sustainability objectives.

Omune and Nyangau (2021) characterised green training and development as the process of enhancing employees' skills in work methodologies, encompassing optimal resource utilisation, energy conservation, waste reduction, and mitigation of environmental damage. Elrehail et al. (2019) elucidated that training and development facilitate the integration of human capital and the accumulation of knowledge, which eventually influences employee well-being and happiness, hence enabling employees to do their responsibilities effortlessly and without impediments. Sareen (2018) elucidated that green training and development constitute an effective and dynamic technique that enhances employee retention and augments job satisfaction. Moreover, Renwick et al. (2013) argued that green training and development foster environmental awareness and boost motivation via organisational support, hence augmenting employee happiness and subsequently improving the execution of green activities.

Martins et al. (2021) similarly discovered that green training enhances job satisfaction and promotes environmentally conscious employee behaviours. Consequently, Pinzone et al. (2019) determined that green training enhances employee job satisfaction, as employees view this training as a manifestation of organisational support. Employee orientation and training programs can be associated with firms' environmental sustainability initiatives (Green Orientation and Training - GOT) (Shah, 2019). The primary objectives of green HRM practices in orientation and training (GOT) are to enhance employee awareness and equip them with the skills and knowledge necessary for engagement in sustainable activities (Renwick et al., 2013). Sharma et al. (2022) assert that organisations investing in green training programs demonstrate superior environmental performance. Employees engaged in training programs possess enhanced awareness of sustainability issues and can significantly contribute to environmental sustainability initiatives.

By fostering a green orientation through employee training, companies can create a workforce that is more aligned with the organization's sustainability goals. This in turn can enhance competitive advantage by improving operational efficiencies, reducing waste, and meeting the growing consumer demand for environmentally conscious products. Moreover, training employees in green practices can help create innovative solutions that differentiate the company from competitors in the marketplace.

Green Performance Appraisal

Performance appraisals are critical for assessing employees' effectiveness and determining rewards or areas for improvement. When a company integrates green practices into its performance appraisal system, it signals the importance of sustainability to its workforce. A green performance appraisal system might evaluate employees on their efforts to reduce environmental impact, such as minimizing waste, reducing energy consumption, or contributing to the company's sustainability initiatives.

Performance appraisal, orientation, and training are essential practices in human resource management (Sathasivam et al., 2023; Segbenya et al., 2023). The former guarantees the enhancement of employees' competencies via on-the-job or off-the-job methods to facilitate their current and future job performance, whereas the latter pertains to the continuous monitoring and assessment of worker performance to ascertain the necessity for additional training, promotions, and salary increases, among other factors (Shah, 2019). A further human resource functional domain associated with environmental sustainability initiatives is performance appraisal (Mensah et al., 2023). Green performance assessment involves assessing employee performance based on environmental objectives and metrics (Mensah et al., 2023). Organisations with performance management systems aligned with environmental objectives demonstrate superior environmental performance (Delgado-Ceballos et al., 2012).

Organisations can motivate employees to integrate sustainable practices into their daily work routines by linking performance assessments to sustainability goals (Aftab et al., 2023; Aftab et al., 2022). Elrehail et al. (2019) elucidated that the objective is to attain equilibrium among economic, social, and environmental sustainability, which might yield enduring advantages for a company. The same author further illustrates that offering constructive feedback to employees correlates positively with perceived career chances and respect, which subsequently enhances job satisfaction. Moin et al. (2021) identified a positive correlation

between performance appraisal and overall job satisfaction. Sareen (2018) elucidated that green training and development, along with green performance appraisal, constitutes an effective and dynamic approach that enhances staff retention and elevates job satisfaction.

This approach can lead to a competitive advantage in several ways. First, it aligns employees' individual goals with organizational sustainability goals, fostering a sense of ownership and responsibility. Second, it can encourage continuous improvements in environmental performance, which may translate to cost savings, operational efficiencies, and enhanced brand image. In competitive industries, such an orientation may set a company apart as a leader in sustainability, attracting customers and partners who prioritize green practices.

Green Rewards and Compensation

Green rewards and compensation systems refer to the incentives and benefits offered to employees for their contributions to sustainability goals. These rewards could include bonuses for meeting energy-saving targets, recognition for innovation in eco-friendly product design, or even providing employees with green benefits such as subsidized eco-friendly transportation or gym memberships that encourage a healthy lifestyle aligned with sustainability.

Rewards and compensations may also pertain to the environmental sustainability initiatives of organisations (Green Rewards and Compensation - GRC). Green HRM encompasses the identification and remuneration of employees who engage in environmentally sustainable practices. Paille et al. (2014) assert that employee enthusiasm and engagement in sustainability projects are heightened in organisations with environmentally friendly remuneration structures. Employers can assist employees in recognising the significance of environmental sustainability by promoting eco-friendly practices and incentivising such behaviours.

Green pleasure arises when a company successfully aligns its procedures and plans with ecologically sustainable practices (Ahakwa et al., 2021a). This is beneficial for enhancing performance, as these activities aim to mitigate undesirable behaviour and promote ecologically sustainable practices. Consequently, the compensation system should be structured to demonstrate management's dedication to sustainable practices and motivate employees to engage in environmentally friendly behaviours (Hadjri et al., 2020). Adequate remuneration is the primary motivator for employees to attain optimal performance, fostering a favourable correlation between the rewards received and the ensuing outcomes (Ahmad et al., 2023).

The effect on competitive advantage is evident when companies recognize and reward environmentally responsible behaviors. It not only motivates employees to actively engage in sustainability efforts but also creates a strong corporate culture that attracts talent with similar values. In turn, the company can reduce its environmental impact while benefiting from the innovation and improved performance of its employees. A strong green rewards and compensation system enhances a company's reputation, making it more attractive to consumers who prefer businesses with sustainable practices. Moreover, it fosters a sense of loyalty and commitment among employees, which can lead to better productivity and lower turnover rates.

Review of Empirical Studies

Saputri et al. (2024) examined the effects of green compensation, green assessment, and green satisfaction on employee performance within Indonesian construction firms. The research, utilising a sample of 204 participants, revealed that green compensation did not affect staff performance but had a favourable impact on green satisfaction. Moreover, green assessment has a beneficial effect on both green satisfaction and employee performance.

Zhang and Sun (2024) examined the impact of organisational green compensation (OGC) and employee green conscientiousness (EGC) on pro-environmental behaviour (EPEB) in China. Two investigations revealed that both OGC and EGC independently facilitated EPEB, while congruence between OGC and EGC resulted in elevated EPEB relative to incongruence. The research indicated that employee

environmental commitment (EEC) served as a mediator in the association between organisational green culture-environmental green culture (OGC-EGC) and employee pro-environmental behaviour (EPEB). These findings underscore the importance of synchronising OGC and EGC for improved environmental results.

Kissi et al. (2024) investigated the influence of green human resource management (HRM) practices on fostering environmental sustainability (ES) among employees in Ghana. The research identified a direct correlation between green human resource management and environmental sustainability behaviour, with employees from many sectors demonstrating a favourable reaction to sustainable HR practices. This study, utilising value alignment theory, provides novel insights into the integration of environmentally sustainable practices within HR strategies in Ghanaian organisations, thereby advancing both national and global sustainability objectives.

Rosyanti et al. (2023) investigated the impact of green culture and employee motivation on sustainable workplace practices within Indonesia's food and beverage sector. The study sample comprised 67 individuals, selected through purposive sampling and analysed using structural equation modelling based on partial least squares. This study showed that green motivation can substantially affect green workplace practices, and that green organisational culture moderates the relationship between green motivation and these activities.

Shaukat and Ali (2023) examined the influence of environmental organisational culture on green innovation, mediated by green behavioural intention, inside Pakistan's textile sector. Furthermore, the investigator employs a sample size of 300. The results demonstrate a favourable and strong correlation between environmental organisational culture and both organisational culture and green inventiveness. Moreover, green behavioural intention serves as a mediator factor between environmental organisational culture and green innovation.

Ben et al. (2023) investigated the role of green cultural practices in attaining sustainable performance in Algeria. The findings indicated that the green organisational culture in the LPG area of Djelfa influences sustainable performance; a more robust green culture correlates with enhanced sustainability performance.

Onputtha et al. (2023) examined the influence of green organisational culture on green transportation and sustainable performance. The samples comprised 400 personnel from the Thai automobile sector. The purposive sampling strategy was utilised to gather data, employing a questionnaire as the study instrument. The findings demonstrate that a green organisational culture directly enhances green transportation and sustainable performance, whereas green transportation directly improves sustainable performance. Moreover, a green organisational culture exerts an indirect positive influence on sustainable performance via green transportation.

Abdelhamied et al. (2023) examined the mediating roles of job satisfaction and green motivation in the relationship between green human resource practices and sustainable performance within the hotel sector. The research examined 333 employees from 18 five- and four-star hotels in Greater Cairo, Egypt, utilising a questionnaire and analysed the data through Partial Least Squares Structural Equation Modelling (PLS-SEM). The results validated that environmentally sustainable human resource strategies significantly affect job satisfaction, which subsequently improves sustainable performance. Moreover, job satisfaction was identified as both a partial and complete mediator between green human resource practices and sustainable performance. The research highlights the significance of incorporating sustainable practices in human resources to enhance employee happiness and advance sustainability objectives in the hotel industry.

Barakat et al. (2023) investigated the influence of green training on sustainable competitive advantage, emphasising the mediating role of green supply chain practices in this relationship. The research, which examined data from 583 Saudi manufacturing contract workers via IBM SPSS Amos, determined that green training augments sustainable business advantage by enhancing operational efficiency, resource utilisation, and environmental performance. The study indicates that green supply chain practices, including

environmentally conscious sourcing and production, mediate the connection between green training and sustainable company results. The results indicate that organisations can get a competitive advantage by integrating their goals with environmental sustainability, hence promoting long-term success in the changing business climate.

Ardiza et al. (2021) examined the influence of green performance appraisal and green remuneration on employee performance via Organisational Citizenship Behaviour for the Environment (OCBE). The research, derived from a survey of 76 employees, employed Structural Equation Modelling (SEM) with Smart PLS for data analysis. The findings indicated that OCBE did not mitigate the influence of green compensation and green performance appraisal on employee performance for individuals with fewer than five years of service. Nonetheless, for employees with over five years of service, OCBE did buffer the impact of green compensation on employee performance.

Methodology

Research Design

This study adopted a cross-sectional survey research design. This design was selected because it allows the researcher to collect data from respondents at a specific point in time, providing insights into the current status of green practices within organizations and their perceived impact on competitive advantage. A cross-sectional survey design is particularly effective for studying the relationship between variables in real-world contexts, making it suitable for this research.

Population of the Study

The population for this study consists of staff members from five organizations in South-East Nigeria that have embraced green organizational practices. The study targeted 453 employees across these organizations, representing the population from which the findings were generalized. These employees were chosen because they are directly involved in or affected by the implementation of green initiatives, and their responses provide valuable insights into how such practices influence competitive advantage.

Sample Size

The sample size for this study was determined using the sample size determination table by Krejcie and Morgan (1970), which provides a scientifically backed method for calculating a representative sample. From the population of 453 employees, a sample of 205 participants was selected to ensure the data accurately represents the population under study. This sample size provides a balance between statistical power and resource constraints.

Method of Data Collection

A structured questionnaire was the primary tool used for data collection. The questionnaire included items designed to assess respondents' perceptions of various aspects of green organizational culture—such as green orientation and training, green performance appraisal, and green rewards and compensation—and their impact on competitive advantage. The responses were measured on a five-point Likert scale, ranging from "Strongly Disagree" to "Strongly Agree."

The questionnaires were hand-delivered to respondents, accompanied by a covering letter outlining the purpose of the study and emphasizing the importance of honest and accurate responses. This letter was designed to ensure that participants understood the relevance of the survey to their workplace practices and felt encouraged to contribute thoughtfully. The questionnaire was divided into two sections: Section A, which collected demographic data about the respondents, and Section B, which focused on the core research questions regarding green organizational culture and competitive advantage.The completed questionnaires were retrieved after one week for analysis.

Validity of Instrument

To ensure the validity of the research instrument, content validity was used. Content validity refers to the extent to which the items on the questionnaire represent all relevant aspects of the green organizational culture variables under study. The questionnaire was reviewed by experts in the fields of Business Administration and Marketing to ensure that the questions adequately covered the subject matter. Feedback from these experts led to necessary revisions, improving the questionnaire's ability to capture accurate and relevant data.

Reliability of Instrument

The reliability of the questionnaire was assessed using the test-retest method. To evaluate internal consistency, the Cronbach Alpha coefficient was calculated. A Cronbach Alpha value greater than 0.7 is generally considered acceptable for ensuring reliability. The table below shows the Cronbach Alpha values for the different dimensions measured by the questionnaire, all of which exceeded the threshold of 0.7, confirming the reliability of the instrument.

Table 1: Reliability Test for All Items in the Questionnaire

S/N	Dimensions	Number of Items	Alpha (α) Value
1	Green Orientation and Training	4	0.77
2	Green Performance Appraisal	4	0.75
3	Green Rewards and Compensation	4	0.78
4	Competitive Advantage	4	0.76

Source: Output of pilot survey data, 2025.

Data Analyses

Data collected from the questionnaires were analyzed using both descriptive and inferential statistical methods. Descriptive statistics, including simple percentages, were used to summarize the respondents' background information and the pattern of responses to the survey questions. This helped to identify general trends and patterns in the data.

Inferential statistics, specifically multiple regression analysis, were used to examine the relationships between the dimensions of green organizational culture (such as green orientation, performance appraisal, and rewards) and competitive advantage. This technique helped assess the strength and significance of these relationships, allowing the researcher to draw conclusions about the impact of green practices on organizational performance. The SPSS for Windows software was employed to perform the statistical analysis.

The statistical model used to test these relationships is given by the following equation:

$$CA = F(GOT, GPA, GRC) \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots.(i)$$

$$CA = \beta_0 + \beta_1 GOT + \beta_2 GPA + \beta_3 GRC + \varepsilon \dots\dots\dots\dots\dots\dots\dots.(ii)$$

Where:

CA = Competitive Advantage

GOT = Green Orientation and Training

GPA = Green Performance Appraisal

GRC = Green Rewards and Compensation

β_0 = Constant (intercept)

β_1, β_2, β_3 = Regression coefficients for green orientation and training, green performance appraisal, and green rewards and compensation, respectively.

ε = Error term

Results and Discussions

A total of 205 copies of the questionnaire were distributed; 200 of them were returned, 1 was incomplete, and 199 copies were put to good use. As a result, the study in this section was predicated on the 97% useable response rate sample size.

Table 2: The Demographic Profile of the Respondents

Demographic Variable	Categories	Frequencies	Percentages
Age	18-25	40	20.1%
	26-35	60	30.2%
	36-45	50	25.1%
	46-55	35	17.6%
	56+	14	7.0%
Gender	Male	120	60.3%
	Female	79	39.7%
Level of Education	Secondary School	50	25.1%
	B.Sc or HND	130	65.3%
	Master's Degree	19	9.5%
Job Position	Management	10	5%
	Supervisory	20	10%
	Technical Staff	130	65.3%
	Administrative Staff	39	19.6%
Years of Work Experience	1-5 years	70	35.2%
	6-10 years	50	25.1%
	11-15 years	50	25.1%
	16+ years	29	14.6%

The demographic profile of the respondents in Table 2 shows that the majority are aged between 26-35 years (30.2%), followed by those aged 36-45 years (25.1%). A significant proportion of respondents are male (60.3%), while females make up 39.7%. Regarding education, most respondents hold a B.Sc or HND (65.3%), followed by those with secondary school education (25.1%) and a small number with a Master's degree (9.5%). In terms of job position, the majority are technical staff (65.3%), with smaller proportions in supervisory roles (10%), administrative staff (19.6%), and management (5%). Regarding years of work experience, the largest group has 1-5 years of experience (35.2%), followed by those with 6-10 years (25.1%) and 11-15 years (25.1%). The smallest group has over 16 years of experience (14.6%). This demographic profile indicates a relatively young, predominantly male workforce with a high level of technical expertise and a significant proportion of employees in the early stages of their careers.

Table 3. Green Organizational Culture and Competitive Advantage

Coefficientsª

Model	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.	Collinearity Statistics Tolerance	VIF
1 (Constant)	1.020	1.006		1.014	.312		
Green orientation and training	.481	.052	.529	9.329	.000	.483	2.069
Green performance appraisal	.319	.059	.314	5.372	.000	.455	2.199
Green rewards and compensation	.148	.048	.130	3.097	.002	.884	1.132

a. Dependent Variable: Competitive advantage

The results in Table 3 show that all three dimensions of green organizational culture—green orientation and training, green performance appraisal, and green rewards and compensation—positively influence competitive advantage. Specifically, green orientation and training has the strongest effect, with a standardized coefficient of 0.529, followed by green performance appraisal (0.314) and green rewards and compensation (0.130). All variables are statistically significant, with p-values well below the 0.05 threshold (p = 0.000 for green orientation and training, p = 0.000 for green performance appraisal, and p = 0.002 for green rewards and compensation), indicating that these factors reliably contribute to competitive advantage. The VIF values (ranging from 1.132 to 2.199) and Tolerance values (ranging from 0.483 to 0.884) suggest that multicollinearity is not a concern in the model. This means that the green practices assessed in the study independently and significantly affect competitive advantage in the organizations.

Table 4 Analysis of Variance

ANOVAª

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	235.853	3	78.618	149.274	.000ᵇ
	Residual	102.700	195	.527		
	Total	338.553	198			

a. Dependent Variable: Competitive advantage

b. Predictors: (Constant), Green rewards and compensation , Green orientation and training, Green performance appraisal

The results in Table 4 indicate that the overall regression model is statistically significant in predicting competitive advantage. The F-statistic is 149.274, with a corresponding p-value of 0.000, which is well below the 0.05 threshold, suggesting that the model explains a significant portion of the variance in competitive advantage.

Table 5 Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.835ª	.697	.692	.726

a. Predictors: (Constant), Green rewards and compensation , Green orientation and training, Green performance appraisal

The results in Table5 reveal that the regression model has a strong explanatory power. The R-squared value is 0.697, meaning that approximately 69.7% of the variance in competitive advantage is explained by the model.

Discussion of Results

The findings showed that green orientation and training had the strongest positive effect on competitive advantage. This result aligns with the study by Barakat et al. (2023), which indicates that green training augments sustainable business advantage by enhancing operational efficiency, resource utilization, and environmental performance. Similarly, Martins et al. (2021) discovered that green training enhances job satisfaction and promotes environmentally conscious employee behaviors. These findings imply that organizations with a strong green orientation and well-structured training programs can significantly improve their competitive advantage by fostering a workforce that is both environmentally aware and efficient. This, in turn, can lead to improved operational outcomes and a more sustainable business model.

The findings also showed that green performance appraisal has an effect on competitive advantage. A study by Saputri et al. (2024) revealed that green assessment positively influences both green satisfaction and employee performance. Moreover, organizations with performance management systems aligned with environmental objectives tend to demonstrate superior environmental performance (Delgado-Ceballos et al., 2012). This implies that integrating green criteria into performance appraisals can enhance employee motivation to adopt environmentally friendly practices, thus improving the organization's overall competitive advantage. Organizations that focus on assessing and rewarding green performance are more likely to experience improvements in environmental sustainability and operational performance.

Additionally, the findings indicated that green rewards and compensation positively affected competitive advantage. However, this result disagreed with the study by Saputri et al. (2024), which found that while green compensation did not directly affect staff performance, it had a favorable impact on green satisfaction. In contrast, Rosyanti et al. (2023) found that green motivation could substantially affect green workplace practices. This implies that while direct financial rewards may not always improve performance, other forms of green motivation, such as recognition or intrinsic rewards, could be more effective in promoting sustainable behaviors among employees. Organizations should carefully consider how they structure their green rewards programs to ensure they are aligned with both employee satisfaction and the organization's sustainability goals.

Conclusion and Recommendations

In conclusion, a green organizational culture has the potential to significantly impact a company's competitive advantage by aligning sustainability with business strategy, reflecting the Theory of Planned Behaviour. This theory posits that an individual's behaviour is influenced by attitudes, subjective norms, and perceived behavioral control. Similarly, by integrating green orientation and training, performance appraisal systems, and green rewards and compensation into the organizational culture, companies can foster innovation, improve operational efficiencies, and enhance brand loyalty, ultimately shaping employee behaviours toward sustainable practices. As environmental concerns continue to grow, firms that embed green practices into their core business strategies are likely to be better positioned to compete in the marketplace, attract eco-conscious consumers, and meet the demands of a more sustainable economy.

A limitation of this study is its focus on only five breweries in South-East Nigeria, which may not fully represent the diversity of green practices across different industries or regions. Future research could explore a broader sample, including organizations from different sectors and geographic locations, to

provide a more comprehensive understanding of the impact of green practices on competitive advantage. The study made the following recommendations:

1. Organizations should prioritize green orientation and training as part of their employee development programs to enhance sustainability awareness and foster environmentally conscious behaviors.

2. Performance management systems should incorporate green performance appraisals to motivate employees and ensure alignment with sustainability objectives.

3. Organizations should implement green rewards and compensation structures that not only incentivize environmental performance but also enhance employee satisfaction and engagement in green practices.

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