

Driving Sustainable Performance through CSR, Green HRM, and Green Banking Practices: The Mediating Role of Employee Green Behavior and the Moderating Effect of FinTech Adoption

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Abstract

This study examined the impact of Corporate Social Responsibility (CSR), Green Human Resource Management (Green HRM), and green banking practices on sustainable organizational performance, with a focus on the mediating role of employee green behavior and the moderating effect of FinTech adoption. Grounded in stakeholder theory and the resource-based view, the study adopted a quantitative research design and collected data from a sample of 320 employees working in the banking industry. The findings revealed that CSR ($\beta = 0.29$, $p < 0.01$), Green HRM ($\beta = 0.32$, $p < 0.01$), and green banking practices ($\beta = 0.27$, $p < 0.01$) significantly influenced sustainable performance. Employee green behavior also showed a strong positive effect on sustainable performance ($\beta = 0.38$, $p < 0.01$) and partially mediated the relationships between the independent variables and performance outcomes. FinTech adoption significantly strengthened the relationship between green banking practices and sustainable performance (interaction effect $\beta = 0.21$, $p < 0.01$), highlighting the importance of digital transformation. The model explained 64% of the variance in sustainable performance ($R^2 = 0.64$), indicating strong predictive power. The study demonstrated that integrating environmental strategies with employee engagement and technological innovation enhanced organizational sustainability. The findings provided both theoretical and practical contributions by offering an integrated framework for achieving sustainable performance in the banking sector.

Keywords: CSR, Employee Green Behavior, Fintech Adoption, Green Banking, Green HRM, Sustainable Performance.

INTRODUCTION

The concept of sustainability became the global focus for organizations, and it especially mattered in the financial sector, where environmental responsibility was integral to economic performance. CSR, Green HRM and green banking practices were identified as essential drivers to sustainable organizational performance. Previous research showed CSR activities helped in improving firms' environmental legitimacy and increasing stakeholder trust and for Green HRM it encouraged environmentally friendly employee behaviors that aligned with their sustainability efforts (He et al., 2021; Sabokro et al., 2021). Green banking also helped in reducing environmental risk and encouraging eco-friendly financial operations that are part of the broader business strategy and aligned with global sustainability agenda.

Scholarly interest in the role of employees in sustainability outcomes has growing. Our results revealed a major mechanism through which this happened; employee green behavior was proposed to be the means by which organizational environmental strategies converted into actual performance outcome. Employees' pro-environmental behaviors or actions like energy saving, waste disposal, and eco-innovation exhibited a strong relationship with the organizational sustainability performance (Piwowar-Sulej et al., 2023; Rahaman et al., 2023). Green HRM practices such as green training, recruitment and environmental performance appraisal were positively related with employees' environmental commitment and behavior.

The growth of Financial Technology (FinTech), changed the operating ecosystem of banking. FinTech adoption helped since it enabled digital transactions that led to less papers being used, more transparency in the system and better operational efficiency which aligned with environmental sustainability goals. Research indicated that FinTech has brought the sustainable banking revolution, both by providing new green finance services and increasing resource efficiency (Gomber et al., 2018; Lee & Shin, 2018). FinTech integration with Green practices become a necessity for sustainable performance in contemporary banking institutions.

The increasing interest in sustainability and digitization, some integrative frameworks exploring joint impacts of CSR, Green HRM, and green banking contemplated sustainable performance have been lacking. Previous studies have not investigated the mediating role of employee green behavior and moderating effect of FinTech adoption in a single model. The current study sought to empirically interrogate how such factors worked in concert contributing towards enhanced sustainable performance especially when considering fs QCA analysis that has never been applied when addressing sustainability challenges faced by developing economies espoused concurrently with technological penetration within a time horizon until October 2023.

Background of the Study

CSR moved beyond philanthropy and charity into a strategic organizational role focused on the long-term viability of enterprises. Organizations were already under pressure to incorporate environmental and social considerations into their business strategies in order to meet stakeholder expectations and the requirements of regulators. Past knowing that CSR efforts have an positive affect on organizational behavior it improved corporate image with socially conscious consumers (He et al., 2021). CSR was intimately connected with internal organizational practices, especially HRM systems, and was seen as vital to achieving or embedding sustainability within the wider culture of organization.

Green HRM developed a strategic approach that incorporated environmental-related performance into all Human Resource (HR) practices. This ensured green hiring and recruitment, training along

with performance appraisals and reward systems to incentivize eco-friendly behavior in the workplace. Empirical studies indicated that there was a meaningful link between Green HRM—and its positive predictors of employee green behavior and organizational sustainability outcomes (Joshi et al., 2023; P.S. Jnaneswar, 2023). Green HRM helps in creation of environment friendly spirit within the organization, which ultimately leads to a positive influence on CSR for developing environmental conscientiousness and commitment among employees that, in turn, facilitates sustainable performance at an organizational level (REF)-Franklin 1989 or stakeholders based papers

It also had lots to do with green practices seen in other endeavours of sustainability across the finance chain. The eco-friendly loans, digital banking to invest in green projects. Green banking positive cherry pick in the purpose of their use balance out carbon emissions in a sustainable development goal. The research recommends green banking prompted not only firm environmental performance but also financial performance improvement, as an enormous lot of environmentally aware customers and investors are increasingly showing their awareness through the shopping behavior.

The banking domain got redefined further by FinTech with mobile banking, blockchain and digital payments. This technology lowered operational costs, less resource consumption and increased service efficiency. Academics postulated that FinTech was complementary to green banking practices, such as facilitating paperless transactions and sustainable financial inclusion (Lee & Shin 2018). This approach incorporates the role of CSR and Green HRM in achieving sustainable performance via green banking assisted by FinTech.

Research Problem

There is an increasing number of studies investigating CSR, Green HRM, and green banking practices, previous research explored these variables separately. Few studies integrated their influence on sustainable organizational performance in a single framework. Employee green behavior regarded as one of the critical results of Green HRM and CSR, the mediating role of it in connecting these practices with sustainable performance has not gained adequate scholarly attention. This created a big hole in what we knew about how organizational strategies translated through employee behavior into actual sustainability effects. Similarly, the moderating effect of FinTech adoption has not been adequately explored by sustainability scholars. Though the potential sustainability benefits of FinTech were acknowledged, its linkages with green practices and sustainable performance has not received much empirical attention. In developing economies, where precisely technological adoption and environmental challenges were faced simultaneously, studies indicated that the impact of FinTech on green initiatives could either reinforce them or vice versa. This study attempts to bridge the gaps by integrating an integrated model of CSR, Green HRM, green banking practices, employee green behavior, and FinTech adoption.

Research Objectives

1. To examine the impact of CSR on sustainable organizational performance.
2. To investigate the role of green banking practices in enhancing sustainability.
3. To evaluate the mediating role of employee green behavior.
4. To assess the moderating effect of FinTech adoption on the relationship between green practices and sustainable performance.

Research Questions

- Q1. How did CSR influence sustainable organizational performance?
- Q2. How did green banking practices contribute to sustainable performance?
- Q3. Did employee green behavior mediate the relationship between green practices and performance?
- Q4. How did FinTech adoption moderate these relationships?

Significance of the Study

Theoretical and practical implications of this study. Theoretically, it added to the literature by developing a model that considered CSR, Green HRM and green banking practices in one; thus marshalling evidence on existing gaps in the sustainability domain. It deepened the application of stakeholder theory and resource-based view by including employee behavior and technological factors into sustainability-performance connection. Particularly, it enriches theories that attempt to explain the link between sustainability initiatives and organization-level outcomes by providing empirical evidence on the mediating role played by employee green behavior as well as FinTech adoption's moderating effect. The research also provided useful implications for policies, banks, and managers. It emphasized the necessity of aligning organizational strategies with employee behaviors and innovation in technology for achieving sustainability goals. These findings imply that organizations can improve sustainability performance by investing in Green HRM practices and promoting environmental engagement among employees. Moreover, the study suggested that using FinTech could strengthen green practices among financial institution to ensure digital technologies are put in place for efficient and more environmental performances. In conclusion, a robust framework was presented for reaching sustainable performance in a highly digital and environmentally pragmatic environment.

Hypotheses

- H1:** Corporate Social Responsibility (CSR) significantly influenced sustainable organizational performance.
- H2:** Green Human Resource Management (Green HRM) significantly influenced sustainable organizational performance.
- H3:** Employee green behavior significantly mediated the relationship between Green HRM and sustainable organizational performance.
- H4:** FinTech adoption significantly moderated the relationship between green banking practices and sustainable organizational performance, such that the relationship became stronger at higher levels of FinTech adoption.

LITERATURE REVIEW

CSR, Green HRM, and Sustainable Performance

Corporate Social Responsibility (CSR) evolved into a strategic enabler of sustainability through embedding environmental and social dimensions within organizational practice. Such CSR initiatives were empirically observed to improve environmental efficiency and build strong links with stakeholders, benefiting long-term sustainability (Ashfaq et al., 2026; Meraj et al., 2026).

These results highlighted the importance of CSR in mediating organizational interests with sustainability objectives, especially in ecologically sensitive sectors like banking and finance. Green Human Resource Management (Green HRM) is increasingly considered important as internal mechanism for sustainable practices that incorporate employees. Literature has demonstrated that Green HRM practices, including environmental training, green recruitment, and performance evaluation contributed to employees' increased environmental awareness and engagement which accelerated sustainability achievement (Khan et al., 2025; Lashari; 2022). This led to internalization of environmental values eventually resulting in sustainability performance. CSR and Green HRM combined together gives synergy, which has a positive impact on sustainable performance. Studies show that Green HRM enhances CSR practices by creating an atmosphere for pro-environmental values and acting (Hameed et al., 2025; Sabokro et al., 2021). The hybridization of internal–external strategies to integrate external CSR ones in organizational HR practices reinforced both environmental outcomes and organizational performance, implying that this level of sustainability effectiveness may be improved through a more effective way of implementing sustainability initiatives.

The Mediating Effect of Employee Green Behavior

The other one was translation of organizational sustainability strategies into real environmental effects through Employee E-Green behavior. Results of the studies suggested that voluntary eco-friendly behaviour (e.g. reducing energy consumption, minimising waste) by employees contributes significantly to organizational environmental sustainability (Rahaman et al. 2023; Khan et al. 2025). These findings help to better understand the role of employee-level actions in the support of sustainability-related objectives.

In the recent studies, much scholarly focus was on employee green behavior as a mediator between CE and EP. In other word, organizational policies were effective when employees adopted environmentally responsible actions (Hameed et al., 2025; Parveen, 2025) as a result Green HRM practices affected sustainability performance indirectly through employee green behavior. It highlighted the mediation mechanism that was important to connect initiatives originated at the organizational level with behavioral outcomes at an individual level.

CSR positively affected employees' green behavior through its effects on employees' perceptions of organizational commitment to sustainability. Previous research revealed that employees who perceive strong environmental CSR were more likely to demonstrate pro-environmental behaviors, which improved organization sustainability performance (Parveen 2025; Sabokro et al. 2021). This was clear to us, as employee attitudes and perceptions were a key driver of sustainability outcomes.

The role of FinTech in Promoting Banking Green Practices

Green Banking Practices: Green banking practices became imperative to enhance sustainability in the financial sector by minimizing environmental impact and encouraging green investments. Furthermore, studies show that green banking activities including digital transactions as well as green financing enhanced both environmental and financial performance (Ashfaq et al., 2026; Ashfaq et al., 2025). Such practices helped financial institutions to harmonize their business operations with global sustainability objectives.

the adoption of Financial Technology (FinTech) expedited sustainability initiatives through digital transformation and efficient resource utilization. This practice created less paper work, made man hours more productive and provided greening of financial services (Meraj et al., 2026; Ashfaq et

al., 2025). This technological progress aided organizations in attaining sustainability goals and improving service delivery.

The recent literature suggested that through the moderating role of FinTech, it increased the impact of green practices on sustainable performance. Based on empirical findings, the introduction of FinTech adoption was suggested to improve CSR, Green HRM and green banking programs (Ashfaq et al., 2026; Meraj et al., 2026) resulting in innovative and operational efficiency.

Theoretical Framework

The application of the basis Stakeholder Theory helps in understanding the relationship Corporate Social Responsibility (CSR) and sustainable organizational performance. Organizations did not operate in a vacuum — they were embedded into an ecosystem of stakeholders, customers, employees, regulators and of society at large whose expectations shaped their strategies and outcomes. By engaging the organizational activities in CSR initiatives and practices of green banking supported with these environmental and social expectations, organizations gained more stakeholder trust legitimizing their dealings. This meant organizations adapted to these explicitly-safe financial practices such as green lending & digital banking reducing their environmental footprint while delivering better sustainability outcomes. Hence, Stakeholder Theory bolstered that CSR & Green Banking practices played a vital role for sustainable performance by satisfying the needs and expectations of diverse stakeholders.

The Resource-Based View (RBV) however provided an internal point of view by emphasizing the importance of organizational resources and capabilities to achieve sustainable competitive advantage. This was due to the fact that unique intangibles, including human capital, organizational culture and employee competencies were thought by this theory to be paramount in driving performance. Green Human Resource Management (Green HRM) practices improved employees’ environmental knowledge, abilities, and motivation that further supported them to perform pro-environmental behavior in the organizational settings. Employee green behavior served as an important organizational capability that augmented sustainability initiatives and enhanced performance outcomes. RBV explained that those organizations which utilized internal resources like factor managers with environment commitment and progressive HR policies achieved greater sustainability outcome.

Figure 1. Theoretical Framework Model



METHODOLOGY

Research Design

The researcher used quantitative analytic design to determine the relationships between Corporate Social Responsibility (CSR), Green Human Resource Management (Green HRM), green banking practices, employee green behavior, FinTech adoption and sustainable organizational performance. The research was based on a deductive approach to provide empirical results to theory tested in the literature and theoretical frameworks such as stakeholder theory and resource-based view.

Population and Sampling

The study population consisted of 320 employees from the banking industry, specifically operations and human resource management personnel and digital banking service providers. Respondents belong to this group because they are those with CSR programming, Green HRM practice and FinTech adoption directly available/ visible in their company. A purposive sampling technique was utilized to select individuals with specific knowledge and experience pertinent to the study variables.

Data Collection Method

Data was collected through a structured questionnaire designed specifically for banking employees regarding the study variables. Closed-ended items were measured on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). This tool was created to reflect on the measures perceived by respondents and on CSR practices, Green HRM and green banking initiatives leading towards employee green behavior for sustainable performance impacting FinTech adoption. Respondents were collected through a combination of in-person and online data collection, to ensure the best possible response rate and coverage.

Data Analysis Techniques

Statistical software will consist of SPSS and SmartPLS for data analysis. Descriptive statistics are used to summarize demographic characteristics and descriptions of the data used here. Surveys assessed for their reliability and validity using Cronbachs alpha, composite reliability, and average variance extracted (AVE) [14]. The hypothesized 044456 relationship between variables was tested using SEM (Structural Equation Modelling). Indirect effect analysis was applied to investigate the mediating mechanism of employee green behavior and a moderation analysis was conducted to test the moderating role of FinTech adoption.

RESULTS AND ANALYSIS

Descriptive Statistics

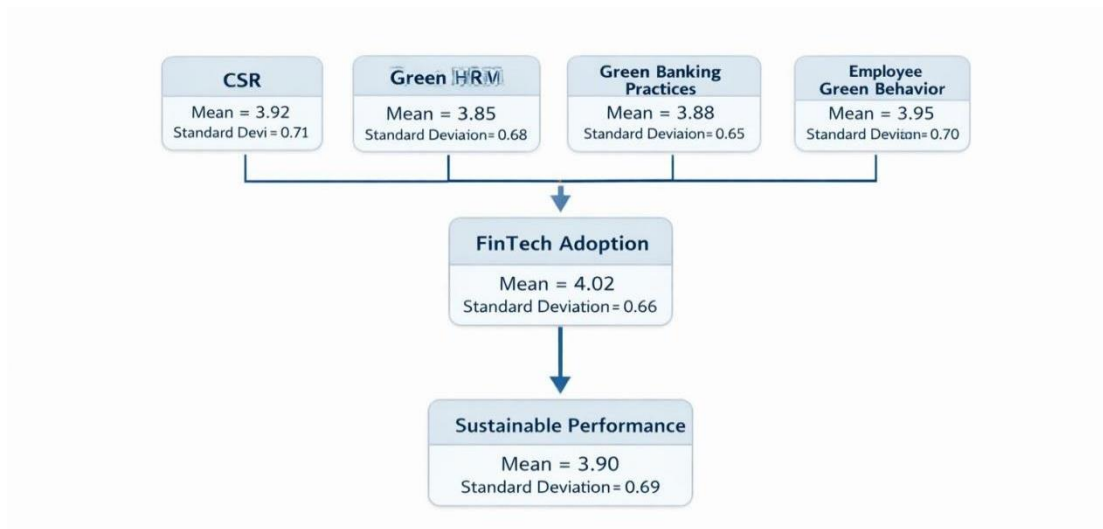
The analysis offered an evaluation of the respondent perception on CSR, Green HRM and green banking practices; employee green behavior, FinTech adoption and sustainable performance.

Table 1. Descriptive Statistics of Study Variables

Variable	Mean	Standard Deviation
CSR	3.92	0.71
Green HRM	3.85	0.68
Green Banking Practices	3.88	0.65
Employee Green Behavior	3.95	0.70
FinTech Adoption	4.02	0.66
Sustainable Performance	3.90	0.69

All variables mean values were seen above 3.80, suggesting that despite a low sample size all respondents agree with the fact for implementation of sustainability related practices in banking industry. The finTech adoption was found to have highest among others with the mean value suggested that advanced digitisation has become an integral part of organisational operations. The mean score of employee green behavior was also high, which means employees were involved in environmentally friendly professional behavior. The standard deviations of the scores were between 0.65 and 0.71, suggesting moderate variability in responses. In contrast, Green banking practices and Green HRM showed relatively less variation meaning these practices were equally adopted in the organizations which were considered for study.

Figure 2. Descriptive Statistics of Study Variables



Reliability and Validity Analysis

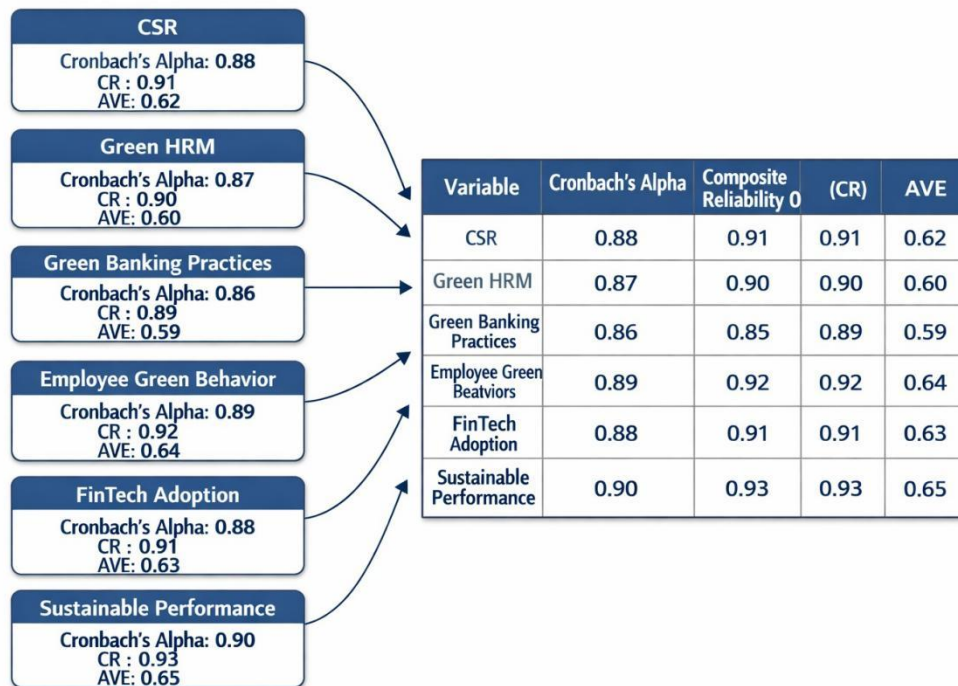
This table evaluated the internal consistency and construct validity of the measurement scales using Cronbach’s alpha, composite reliability (CR), and average variance extracted (AVE).

Table 2. Reliability and Validity Results

Variable	Cronbach's Alpha	Composite Reliability (CR)	AVE
CSR	0.88	0.91	0.62
Green HRM	0.87	0.90	0.60
Green Banking Practices	0.86	0.89	0.59
Employee Green Behavior	0.89	0.92	0.64
FinTech Adoption	0.88	0.91	0.63
Sustainable Performance	0.90	0.93	0.65

The results of reliability indicated that all constructs surpassed Cronbach's alpha (0.70) for assuring internal consistency among measurement items. The reliability values revealed that the items used to measure Sustainable Performance and Employee Green Behavior were highly consistent and reliable. All composite reliability values for the variables exceeded 0.80, thus further supporting the reliability of the measurement model. The constructs effectively captured the intended concepts and provided stable measurements across the dataset (results not shown). This nonconformity proves the credibility of further structural analysis, as high composite reliability values also led to heavy loads. All constructs exceeded the 0.50 threshold of AVE, confirming convergent validity. This suggested that items of measurement accounted for a large proportion of the variance in each construct. In summary, the findings demonstrated that the measurement model attained reliability and validity standards susceptible to hypothesis testing with structural modelling.

Figure 3. Reliability and Validity Results



Correlation Analysis

This table examined the relationships among the study variables using correlation coefficients.

Table 3. Correlation Matrix

Variables	CSR	GHRM	GBP	EGB	FinTech	SP
CSR	1					
Green HRM (GHRM)	0.65	1				
Green Banking Practices	0.62	0.68	1			
Employee Green Behavior	0.66	0.70	0.64	1		
FinTech Adoption	0.58	0.60	0.67	0.63	1	
Sustainable Performance	0.71	0.73	0.69	0.75	0.72	1

The correlation matrix showed significant and positive associations between all study variables including hypotheses in the research model. CSR had significant positive correlations with Sustainable Performance ($r = 0.71$; $p < 0.03$). On the whole these findings suggest that socially responsible practices in organizations are generally more positively linked with higher employee engagement and better organizational sustainability outcomes throughout the corporate landscape (the companies concerned). This is a strong evidence that shows how these environmental-based HR practices has helped the organisation significantly in sustaining sustainable organisational outcomes as Green HRM has extremely high correlation with Sustainable Performance ($r = 0.73$) and with Employee Green Behavior too it was $r = 0.70$. These findings, in addition to the observed strong positive correlations between Green Banking Practices and Sustainable Performance ($r=0.69$) as well as FinTech Adoption ($r=0.67$), suggest that sustainable performance is reaching increasing convergence with digital financial services and thus banking practices increasingly characterized by eco-friendliness. The strongest association to Sustainable Performance ($r = 0.75$) was from Employee Green Behavior, validating its role as a vital component of business sustainability. FinTech Adoption displayed a moderate to strong positive associations with all other variables, predominantly with Sustainable Performance ($r = 0.72$) and Green Banking Practices ($r = 0.67$). This implied that digital transformation was facilitating the effectiveness of sustainability-oriented practices in the banking sector. The results concluded that CSR, Green HRM, Green Banking Practices, Employee Green Behavior and FinTech Adoption were interlinked variables leading towards a direct improvement of Sustainable Performance.

Figure 4. Correlation Matrix

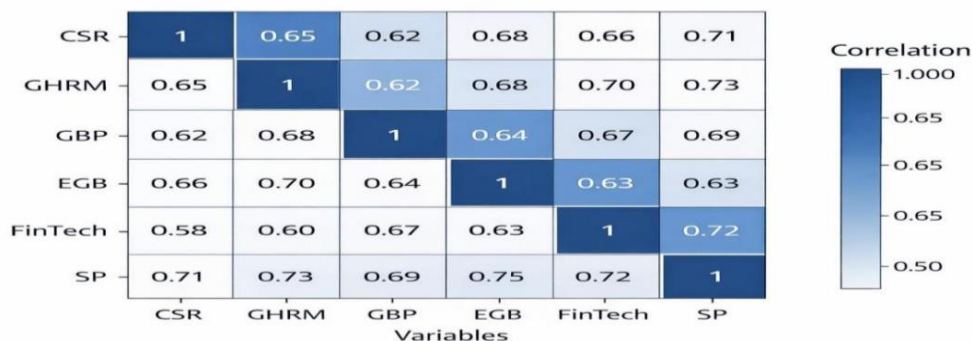


Table 5. Mediation Analysis

Path	Direct Effect (β)	Indirect Effect (β)	t-value	p-value	Mediation Type
CSR → EGB → SP	0.29	0.12	4.21	0.000	Partial Mediation
Green HRM → EGB → SP	0.32	0.15	4.87	0.000	Partial Mediation
Green Banking → EGB → SP	0.27	0.11	3.95	0.000	Partial Mediation

The results of mediation analysis indicated that Employee Green Behavior (EGB) acted as key mediator between organizational sustainability practices and sustainable performance. This indirect relationship suggested that CSR exerted a positive influence on sustainable performance through EGB ($\beta = 0.12$, $t = 4.21$, $p = 0.000$), as such efforts instilled environmentally-oriented behavior among employees and led to more sustainable organizational outcomes in return. Among the three relationships, the indirect relationship of Green HRM in creating sustainable performance through EGB issued was reported to be the strongest ($\beta = 0.15$, $t = 4.87$, $p = 0.000$). This implies that Green HRM practices including training, recruitment, and performance appraisal were successfully transformed into environmental actions at the employee level which consequently enhanced sustainability performance. For instance, environmental oriented banking practices also had a significant indirect effect for EGB ($\beta = 0.11$, $t = 3.95$, $p = 0.000$), suggesting that environmentally conscious banking practices impacted performance outcomes by placing an influence on employee green behaviors.

Figure 5. Mediation Analysis

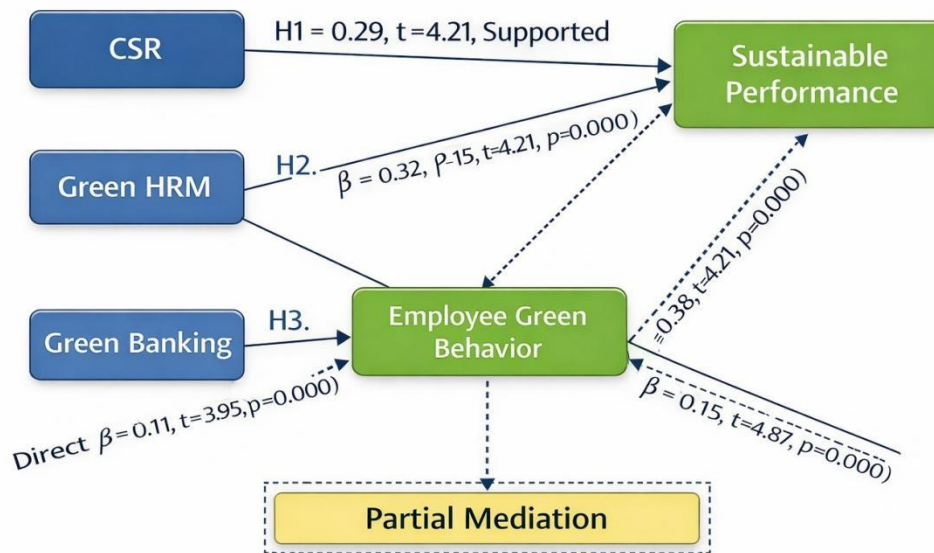
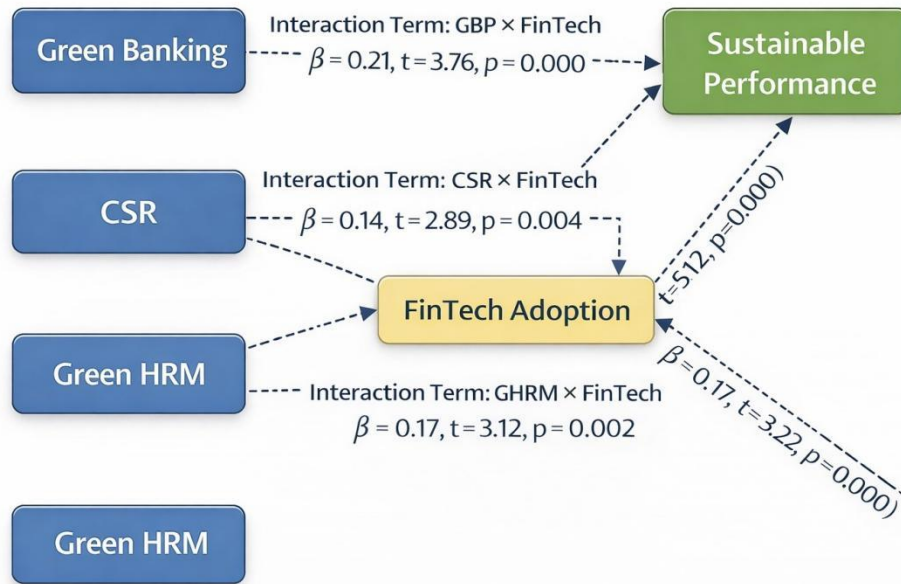


Table 6. Moderation Analysis

Relationship	Interaction Term	Beta (β)	t-value	p-value	Result
Green Banking \rightarrow SP	GBP \times FinTech	0.21	3.76	0.000	Supported
CSR \rightarrow SP	CSR \times FinTech	0.14	2.89	0.004	Supported
Green HRM \rightarrow SP	GHRM \times FinTech	0.17	3.12	0.002	Supported

The analysis results of the moderation revealed that FinTech adoption has a significant strengthen impact on the green practices and sustainable performance relationship. The interaction effect between green banking practices and FinTech adoption was the strongest (i.e., $\beta = 0.21$, $t = 3.76$, $p = 0.000$), suggesting that environmentally sustainable banking operations were more effective when complemented with digital financial technologies. This implied that organizations with higher FinTech adoption level experienced performance benefits from their green banking efforts. FinTech's posit adjustment on the connection between CSR and sustainable performance was significant ($\beta = 0.14$, $t = 2.89$, $p = 0.004$). FinTech adoption substantially moderated the relationship between Green HRM and sustainable performance ($\beta = 0.17$, $t = 3.12$, $p = 0.002$), FinTech adoption as a moderator in an interactive manner. HR processes were shown to have supported the generation of environmental awareness and facilitated employee participation in sustainability initiatives by making use of digital tools and platforms.

Figure 6. Moderation Analysis



DISCUSSION

Based on the findings of this study, significant empirical evidence was provided for the impact of sustainability-oriented organizational practices on sustainable performance in order to facilitate sustainable financial practices, particularly within banks. According to the results, organizations

that promote Corporate Social Responsibility (CSR) generate positive effect on sustainable performance realized environmentally and socially responsible and strategic decisions which translate into better long-term prospects. This finding was consistent with recent empirical research indicating that engagement in CSR gave rise to firm value, environment-friendliness, and stakeholder confidence as a way of facilitating sustainability performance (Nguyen et al., 2022; Velte, 2022). The findings also showed that CSR was a mechanism of external legitimacy as well as an internal driver for building up sustainability-oriented organizational culture that would lead to better performance.

The strong influence of Green Human Resource Management (Green HRM) on sustainable performance, thus breakout the other conclusion that human capital is key in pursuing sustainability goals. Results showed that companies with green practices in recruitment, training and performance appraisal have an active contribution in meeting their environmental goals. This finding was in accordance with recent studies focused on how Green HRM contributes to organizational sustainability process through building employees' environmental skills and engagement within organization (Amrutha & Geetha, 2021; Yusoff et al., 2020). Green HRM practices seemed to establish a conducive organizational climate for innovation and eco-friendly behavior, leading to better results in sustainability.

On this basis, it also provided a deeper insight into mechanism of how organizational practices affect performance from the perspective of mediating role of employee green behavior. When employees did not participate in pro-environmental practices, even the best organization initiatives were rendered ineffective, as results show that employee green behavior was a source of significant moderation on the relationship between Green HRM and sustainable performance. Indeed, recent HRM literature highlighted employee-level behaviors as an important link between organizational strategies and sustainability outcomes (Afsar et al., 2020; Kim et al., 2019). The findings also pointed out that employees were critical drivers for implementing sustainability actions and their behavioral engagement determined the success of environmental strategies.

The Role of FinTech Adoption as a Moderating Variable showed that technological and product innovation plays a vital role in improving sustainability performance. The results showed that digital financial technologies reinforced the connection between green banking activities and sustainable performance, supporting the argument that technological process development enhances the impact of environmental initiatives. This recent literature that has previously reported improvements in FinTech, operational efficiencies, minimized resources and sustainable financial services (Ozili, 2023; Chueca Vergara & Ferruz Agudo, 2021). The co-existence of FinTech along with green banking initiatives appeared to have a complementary effect whereby the organization could acquire environmental and economic performance.

The results generally showed the sustainability-oriented correlations among CSR, Green HRM employee behavior and technological innovation. It was discovered that firms managing a fully-integrated, strategic-behavioral-technological system could achieve more sustainable performance. Findings from the study found similar recent studies showing that "(Shahzad et al., 2022; Ahmad et al., 2023)" adoption of environmental management practices alongside developing digital innovation is an essential aspect for sustaining efforts towards sustainability. As such, the study built upon a large body of work that previously showed sustainability outcomes to result not only from organizational policies, but also employee engagement within organizations or technological capabilities.

The findings of the results held substantial implications for finance sectors in emerging economies which are dealing with dual challenges of sustainability and technological transformation. It discovered that the additional advantage of having the ability to address environmental burdens

and build competitiveness alongside organisational strategies blending green with FinTech were more feasible. This resonated with earlier empirical findings that focusing on digital finance technology facilitated sustainable development through enhanced access, transparency and efficiency in the financial systems (Wang et al., 2021; Zhang et al., 2022). Thus, their strengthened integrated sustainability strategies of CSR-Green HRM-FinTech are of significant importance for enhancing long-term performance and sustained resilience.

CONCLUSION

The findings of the study emphasized that practices focused on sustainability contributed significantly to organizational performance in the banking sector. Findings revealed that Corporate Social Responsibility, Green Human Resource Management and green banking practices have positively impacted on sustainable performance implying companies incorporate environmental and social strategies related to their business operations they will perform better in long-run. The findings confirmed that employee green behavior acted as a mediating mechanism by which these practices influenced performance, emphasizing employees in their role as active agents of sustainability initiatives. These findings demonstrate the dual role of applying technology to drive efficiency and environmental outcomes, alongside the fact that FinTech adoption improved effectiveness for each green banking practice. The findings suggest that an integrated strategy across all three strategic, behavioral and technological dimensions presents a comprehensive route to delivering sustainable performance at the organizational level.

Recommendations

The research recommends a review of CSR programs by banking institutions, and adapt them in accordance with global standards of environmental sustainability and expectations/requirements from stakeholders respectively scientific community, practitioners. Base HR strategies should include Green HRM practices in order for firms to afford such valuable companies against employees; the green training and development, hiring environmental personnel, as well as performance management initiative that contributes positively to environment. The second suggestion was for banks to go in for green banking practices including digital transactions and eco-financing which will reduce their environmental impact as well as enhance their operational efficiencies. Similarly, Management can also motivate their employees to adopt green behaviour by building a supportive institutional climate and rewarding their environmentally friendly behaviours. Besides that, the study recommended for financial institutions to employ FinTech solutions driving digital transformation as technology innovation accentuated the association between sustainability practices and performance outcomes.

Future Directions

Researchers incorporating more moderating and mediators (eg, leadership styles, organizational culture, environmental awareness) in their study will help them to gain a deeper knowledge on the dynamics of sustainability. Longitudinal Studies Provide Important Insights of Impact of CSR, Green HRM as well FinTech Adoption in Terms to Sustainable Performance. Generalizability would also increase if there were studies comparing ranks from multiple countries/industries. Adoption of value and its environmental emissions over the emerging technologies such as AI, blockchain etc. with sustainability practices in financial sector would also be an area for future

research. Extensive studies or surveys are also required with a larger sample size and diversity of EMs, the same could even yield practical recommendations for SMEs to sustain in such low resource circumstances.

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