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Antecedents of Green Behavior in Organizations: The Roles of Employee Engagement, Employee Involvement, and Transformational Leadership

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Abstract

The growing importance of sustainability in the financial sector, particularly in Islamic banking, highlights the need to understand the behavioral drivers of green banking and investment. This study aims to examine the effect of employee engagement on green behavior in Islamic banks in Indonesia, with green employee involvement as a mediator and transformational leadership as a moderator. Using a quantitative approach, primary data were collected through questionnaires distributed to 80 employees and analyzed using Partial Least Squares–Structural Equation Modeling (PLS-SEM). The results reveal that employee engagement has a significant influence on both green behavior and green employee involvement, while involvement also positively affects green behavior. However, green employee involvement does not mediate the relationship between engagement and behavior, and transformational leadership negatively moderates the link between engagement and involvement. These findings underscore the need to embed sustainability values in organizational culture and leadership practices to strengthen employee-driven ecological initiatives.

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INTRODUCTION

Sustainability issues have become increasingly strategic in the global financial industry, including Islamic banking. Global agendas such as the Sustainable Development Goals (SDGs) and the principles of Environmental, Social, and Governance (ESG) require financial institutions not only to pursue profitability but also to take responsibility for their social and environmental impacts

(Chowdhury et al., 2025a; Zhang et al., 2022). This call is particularly relevant to Islamic banking since it is closely aligned with the values of maqasid al-shariah, which emphasize environmental preservation, justice, and balance in resource utilization (Jannah et al., 2025). Climate change, increasing carbon emissions, and pressure on natural resources demand that financial institutions take an active role in supporting the transition toward a green economy through sustainability-oriented policies and practices (Carè, 2018; Wang & Zhang, 2021). In response to increased stakeholder concern for environmental responsibility (Boiral et al., 2018), businesses are now reshaping their business models. This shift has led to the adoption of "green" models, which prioritize integrating sustainable initiatives into every aspect of their operations (Wagner, 2011;Islam et al., 2021). In the Islamic banking sector that is built on principles of social justice and sustainability, it's highly relevant for employees to adopt green behavior.

One of the concrete ways to implement sustainability in the financial sector is through green banking. This concept encompasses eco-friendly practices such as energy efficiency, digitalization of transactions, emission reduction, and financing of green projects that support environmental improvements (Linh & Anh, 2017; Nizam et al., 2019). However, previous studies highlight that the success of green banking is not solely determined by policies or green financial product innovation, but also originates from the foundation of organizational behavior (Adhitya et al., 2024). In this regard, employees' green behavior serves as the operational backbone of effective sustainability strategies. Environmentally friendly practices such as energy saving, adoption of digital technologies, and adherence to sustainability principles not only enhance internal efficiency but also strengthen the reputation of financial institutions in supporting the green agenda (Norton et al., 2015; Ones & Dilchert, 2012).

Although literature on green behavior continues to expand, studies in the context of Islamic banking remain relatively limited. Most existing research tends to focus on macro-level policies, regulations, or product innovation, while organizational behavior and employee involvement have not been deeply explored (Ali & Parveen, 2018; Chowdhury et al., 2025b). Moreover, several studies reveal the existence of an intention–behavior gap, namely the discrepancy between pro-environmental intentions and actual employee behavior (Hasebrook et al., 2022). This highlights the need for further analysis of factors that can facilitate the conversion of motivation into concrete green behavior. Hence, this study addresses this research gap by linking employee green behavior through their engagement and involvement in green practices, and also ethical leadership represented by transformational leadership (Tang et al., 2023) within the context of Islamic banking in Indonesia.

Based on this background, the objective of this study is to analyze the influence of employee engagement on employees' green behavior in Islamic banks in Indonesia, considering the mediating role of green employee involvement and the moderating role of transformational leadership. This study is expected to enrich the green literature on the relationship between employee behavior, while also providing practical contributions to green human resource policies, organizational culture, and sustainable investment strategies in the Islamic banking sector.

LITERATURE REVIEW

Green behavior in organizations is understood as individual behavior deliberately aimed at preserving the environment or minimizing the ecological impact of work activities. Such behavior is classified into in-role green behavior, which is aligned with formal job descriptions, and extra-role green behavior, which refers to voluntary actions beyond formal obligations (Islam et al., 2020). In the context of Islamic banking, green behavior gains additional normative legitimacy through the principles of maqasid al-shariah, which emphasize the preservation of nature, social justice, and balance in resource utilization (Jannah et al., 2025). Thus, green behavior is not only an organizational strategy but also a form of spiritual and social responsibility embedded in the identity of Islamic financial institutions.

The Ability–Motivation–Opportunity (AMO) framework provides the primary theoretical lens for explaining the emergence of such behavior (Boxall & Purcell, 2003). Within Green Human Resource Management (GHRM), employee engagement represents the motivational driver that enhances pro-environmental awareness (Paillé et al., 2014), while green employee involvement reflects opportunity, offering employees structural avenues to translate engagement into concrete green actions (Tang et al., 2018). Transformational leadership, with its dimensions of inspirational vision, intellectual stimulation, and individualized consideration, functions as a psychological enabler shaping the social context that fosters or constrains green behavior (Ababneh, 2021; Rafferty & Griffin, 2004). Engagement characterized by vigor, dedication, and absorption (Schaufeli et al., 2002) tends to increase pro-environmental tendencies, yet does not automatically lead to behavioral outcomes due to the well-documented intention–behavior gap. This gap underscores the importance of green employee involvement, such as contributing ideas on energy efficiency, participating in environmental training, and engaging in ecological decision-making processes.

Empirical studies have consistently confirmed the role of engagement, involvement, and leadership in shaping green behavior. (Ones & Dilchert, 2012) highlighted that employees' green behavior is a critical component of organizational sustainability strategies. (Paillé et al., 2014) showed that while employee engagement fosters pro-environmental tendencies, it often stalls at the motivational level without organizational support. (Tang et al., 2018) emphasized that employee involvement in green initiatives is pivotal for converting intentions into actions. (Ababneh, 2021) further demonstrated that perceptions of transformational leadership may strengthen the engagement–

green behavior relationship, although other studies suggest that overly target-oriented leadership styles may diminish participation and weaken the effect.

Within the financial sector, green behavior has also been linked to institutional sustainability outcomes. (Ali & Parveen, 2018) reported that employees' green behavior in Islamic banks significantly contributes to the growth of green banking practices. (Chen et al., 2023) found that pro-environmental lifestyles among individuals are positively associated with preferences for green investment. Meanwhile, (Chowdhury et al., 2025), examining the case of Bangladesh, revealed that employee motivation and green behavior mediate the relationship between green banking practices and environmental performance.

Taken together, the literature suggests a broad consensus: GHRM enhances engagement, employee involvement bridges the intention–behavior gap, and transformational leadership often reinforces the organizational climate for sustainability. Yet, several puzzles remain unresolved. First, empirical evidence in the context of Indonesian Islamic banking is limited, despite the sector's unique maqasid-based value orientation. Second, the moderating effect of transformational leadership remains inconsistent, as its outcomes vary depending on goal orientation and participation opportunities. Third, the micro–macro mechanisms through which employees' green behavior translates into organizational outcomes such as green banking and green investment are not yet fully established. Against this backdrop, the present study contributes by examining the engagement–green behavior relationship, mediated by green employee involvement and moderated by transformational leadership, in the context of Indonesian Islamic banking. Accordingly, the researcher constructed the following conceptual framework to illustrate the research model:

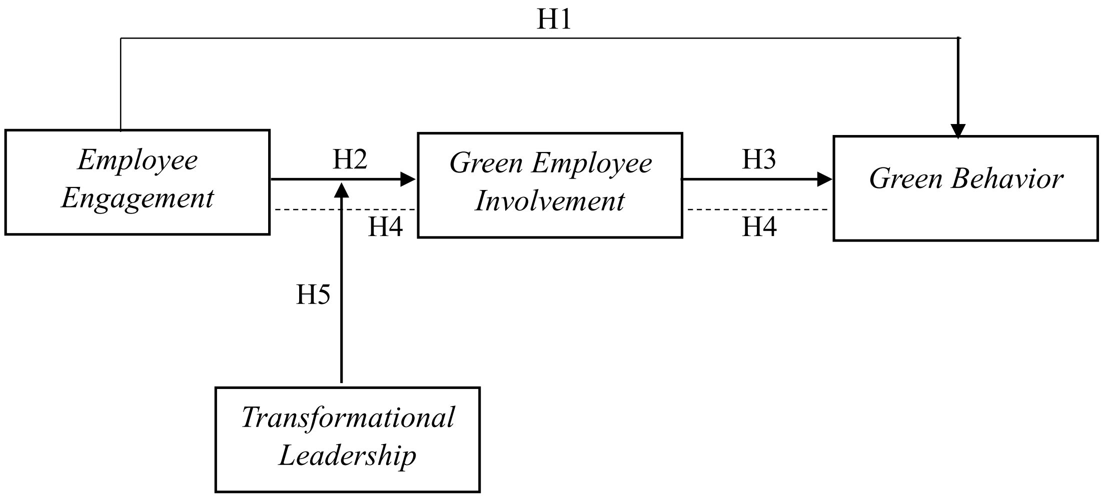

Figure 2. Research Framework
Source: Processed by the Researcher, 2025

Employee engagement represents the emotional, cognitive, and physical attachment of employees to their work, reflected through vigor, dedication, and absorption (Schaufeli et al., 2002). Employees with a high level of engagement tend to display proactive behavior and contribute positively to the organization, including in supporting environmental sustainability initiatives. Previous studies have shown that employee engagement contributes to greater awareness and voluntary environmental behaviors, such as energy conservation, waste management, and efficient use of resources (Ababneh, 2021; Paillé et al., 2014). Therefore, the first hypothesis is proposed as follows:

H1: Employee engagement has a positive effect on green behavior.

Employee engagement not only directly stimulates positive behaviors but also motivates employees to actively participate in organizational activities and programs aligned with organizational values. In the context of sustainability, green employee involvement reflects employees' active participation in organizational efforts to achieve environmental objectives. According to (Tang et al., 2018), engaged employees are more willing to attend environmental training, provide green ideas, and participate in energy efficiency and waste reduction programs. Based on this reasoning, the second hypothesis is formulated:

H2: Employee engagement has a positive effect on green employee involvement.

Green employee involvement reflects the extent to which employees participate in organizational environmental practices and policies. The higher the involvement of employees in green activities, the greater the likelihood of them demonstrating environmentally sustainable work behaviors. This involvement fosters a sense of ownership toward organizational values, which further drives both in-role and extra-role green behaviors (Dumont et al., 2016). Thus, active employee participation in environmental activities is an important predictor of green behavior, leading to the third hypothesis:

H3: Green employee involvement has a positive effect on green behavior.

Within the AMO framework, green employee involvement represents the "opportunity" dimension that facilitates the conversion of motivation (employee engagement) into concrete actions (green behavior). In other words, employee involvement in environmental programs can strengthen the relationship between engagement and behavior. When organizations provide opportunities for employees to actively participate, employee engagement is not limited to psychological commitment but is also manifested in sustainability-oriented work behaviors (Renwick et al., 2013). Therefore, employee involvement is expected to act as a mediator in the relationship between employee engagement and green behavior. The fourth hypothesis is therefore proposed:

H4: Green employee involvement mediates the effect of employee engagement on green behavior.

Transformational leadership plays an important role in creating a work climate that supports participation and green behaviors. Leaders with a strong vision, inspirational communication, and supportive behaviors can enhance participative spirit within organizational activities, including sustainability programs (Rafferty & Griffin, 2004). Thus, this leadership style is expected to strengthen the relationship between employee engagement and green employee involvement. In the context of the AMO theory, transformational leadership enhances motivation (engagement) by expanding opportunities for employees to participate in environmental programs. Therefore, the fifth hypothesis is proposed:

H5: Transformational leadership strengthens the relationship between employee engagement and green employee involvement.

METHOD

This study employs a quantitative descriptive approach that is designed systematically, structurally, and in an organized manner. This approach was chosen because the research focuses on testing the relationships among variables using measurable research instruments. A descriptive design was used to identify and describe the phenomena of employee engagement, green employee involvement, green behavior, and transformational leadership within the context of Islamic banking (Sekaran & Bougie, 2016).

The research data consist of both primary and secondary data. Primary data were collected directly from respondents through an online questionnaire distributed to employees of Bank Muamalat and BPD DIY Syariah in Indonesia. The questionnaire was developed based on indicators of the research variables that are relevant to the Ability–Motivation–Opportunity (AMO) theoretical framework (Ababneh, 2021). Secondary data were obtained from literature, journal articles, research reports, and other documents that support the analysis (Siyoto & Sodik, 2015).

The population of this study comprises all employees of Islamic commercial banks. Sampling was carried out using the purposive sampling technique, with criteria that respondents must be permanent employees who have worked for at least two years and have sufficient understanding of the organization's policies and environmental activities. A total of 80 respondents participated in this study. Determination of the sample size refers to the recommendation by Hair through the 10-times rule, which states that the minimum sample size should be equal to (1) ten times the largest number of formative indicators used to measure a single construct or (2) ten times the largest number of structural paths directed at a particular latent construct in the structural model (Hair et al., 2017). In this study, there are five structural paths pointing to a latent variable; therefore, the minimum required sample size is n≥10×5=50n \geq 10 \times 5 = 50n≥10×5=50. Thus, the collected 80 respondents exceed the minimum threshold and are considered adequate for further analysis using Partial Least Squares-Structural Equation Modeling (PLS-SEM).

Data analysis was conducted through two stages: measurement model testing (outer model) and structural model testing (inner model). The outer model was applied to examine the validity and reliability of the constructs, including convergent validity, discriminant validity, composite reliability, and Cronbach's alpha (Ghozali & Latan, 2015). Meanwhile, the inner model was used to test the relationships among latent variables, including multicollinearity, coefficient of determination (R^2), f-square (f^2), Q-square (Q^2), and hypothesis testing using the bootstrapping method (Hair et al., 2017).

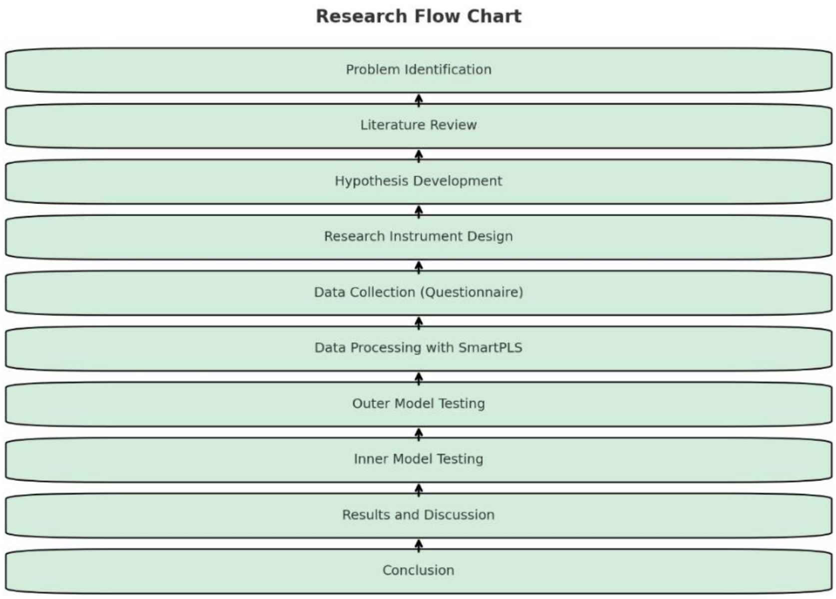

Figure 1. Research Flow Chart
Source: Processed by the Researcher, 2025

Overall, the research process followed these stages: problem identification, literature review, hypothesis development, instrument design, data collection through questionnaires, data processing with SmartPLS, outer model testing, inner model testing, results and discussion, and drawing conclusions.

This section contains as much material and methods as possible to provide ideas to the reader through the methods used. References are written using the APA format, for example: (Sa'aati, 2003) (references to this template are only examples). Sub-subtitles about this method consist of at least one type of research; location research; source of legal material; data collection technique; and data analysis.

RESULTS AND DISCUSSION

Results

Convergent Validity

Table 1. Convergent Validity Test Results

Variable	Items	Outer Loadings	AVE
Employee Engagement	EE1	0,744	0,551
	EE2	0,759	
	EE3	0,730	
	EE4	0,718	
	EE5	0,785	
	EE6	0,761	
	EE7	0,755	
	EE8	0,705	
	EE9	0,720	
	EE10	0,739	
	EE11	0,781	
	EE12	0,722	
	EE13	0,748	
	EE14	0,722	
	EE15	0,715	
	EE16	0,776	
	EE17	0,732	
Green Employee Involvement	GEI1	0,746	0,576
	GEI2	0,713	
	GEI3	0,801	
	GEI4	0,752	
	GEI5	0,745	
	GEI6	0,730	
	GEI7	0,824	
	GEI8	0,788	
	GEI9	0,738	
	GEI10	0,744	
	GEI11	0,764	
Transformational Leadership	TL1	0,759	0,556
	TL2	0,735	
	TL3	0,775	
	TL4	0,781	
	TL6	0,726	
	TL7	0,761	
	TL8	0,731	
	TL9	0,714	
	TL10	0,701	
	TL12	0,771	
	TL13	0,724	
	TL14	0,762	
Green Behavior	GB1	0,769	0,676
	GB2	0,802	
	GB3	0,880	

	GB4	0,830
	GB5	0,827

Source: Processed Primary Data, 2025

The table above shows the results of the convergent validity test, where all items have factor loadings greater than 0.70. These items also meet the criteria for Average Variance Extracted (AVE), which is considered valid if the value exceeds 0.50 for the indicators used to form the latent variables. This indicates that the instruments or constructs in this study are valid, meaning that they are capable of measuring the intended concepts appropriately.

Discriminant Validity

Table 2. Discriminant Validity Test Results

	EE	GB	GEI	TL
EE	0,742			
GB	0,524	0,822		
GEI	0,689	0,551	0,759	
TL	0,709	0,386	0,613	0,745

Source: Processed Primary Data, 2025

Based on the table above, it can be concluded that the square root of the AVE for all constructs is greater than the intercorrelations among the corresponding constructs. For instance, the latent variable employee engagement with itself has a value of 0.742, which is higher than its correlations with other latent variables—green behavior, green employee involvement, and transformational leadership—at 0.524, 0.689, and 0.709, respectively. Therefore, the evaluation of discriminant validity using the Fornell–Larcker criterion indicates that the measurement model is acceptable.

Reliability Test

Table 3. Reliability Test Results

Variable	Composite Reliability	Cronbach's Alpha
Employee Engagement	0,954	0,949
Green Behavior	0,913	0,880
Green Employee Involvement	0,937	0,926
Transformational Leadership	0,937	0,927

Source: Processed Primary Data, 2025

Based on the reliability test results presented in the table above, all latent variables in this study show satisfactory values. The Cronbach's Alpha values for each variable are as follows: employee engagement = 0.949, green behavior = 0.880, green employee involvement = 0.926, and transformational leadership = 0.927. Similarly, the Composite Reliability values are 0.954 for employee engagement, 0.913 for green behavior, 0.937 for green employee involvement, and 0.937 for transformational leadership. All these values exceed the threshold of 0.70, indicating that the indicators for each latent variable are reliable, meaning they are consistent, accountable, and capable of producing stable results across different conditions, times, and contexts.

Determination Coefficient

Table 4. Determination Coefficient Test Results

Variable	R-Square	R-Square Adjusted
Green Behavior (GB)	0,344	0,327
Green Employee Involvement (GEI)	0,546	0,528

Source: Processed Primary Data, 2025

Based on the R-Squared test results shown in the table above, employee engagement (EE) and green employee involvement (GEI) explain 34.4% of the variance in green behavior (GB), which is considered a moderate effect. Meanwhile, employee engagement (EE) and transformational leadership (TL) explain 54.6% of the variance in green employee involvement (GEI), also at a moderate level. Furthermore, the adjusted R-Squared value for green behavior (GB) is 0.327, meaning that 32.7% of the variance in GB can be explained by EE and GEI, while the remaining 67.3% is explained by other variables outside this study. Similarly, the adjusted R-Squared value for green employee involvement (GEI) is 0.528, indicating that 52.8% of the variance in GEI can be explained by EE and TL, while the remaining 47.2% is accounted for by other variables not included in this study.

F square

Table 5. F Square Test Results

Hypothesis	Relationship	F Square	Result
H1	Employee Engagement (EE) → Green Behavior (GB)	0,061	Small
H2	Employee Engagement (EE) → Green Employee Involvement (GEI)	0,073	Small
H3	Green Employee Involvement (GEI) → Green Behavior (GB)	0,105	Small
H5	Transformational Leadership (TL)*Employee Engagement (EE) → Green Employee Involvement (GEI)	0,087	Small

Source: Processed Primary Data, 2025

Q square

Tabel 6. Q square Test Results

Variable	Q-Squared
Green Behavior	0,201
Green Employee Involvement	0,281

Source: Processed Primary Data, 2025

Based on the Predictive Relevance (Q-Squared) test shown in the table above, the Q-Squared values for the endogenous variables in this study are greater than zero, namely green behavior (GB) at 0.201 and green employee involvement (GEI) at 0.281. Therefore, it can be concluded that the data in this study demonstrate predictive relevance.

Hypothesis Testing

Table 7. Hypothesis Testing Test Results

Hypothesis	Original Sample (O)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values	Result
EE → GB (H1)	0,275	0,138	2,000	0,046	Accepted
EE → GEI (H2)	0,315	0,130	2,415	0,016	Accepted
GEI → GB (H3)	0,363	0,147	2,459	0,014	Accepted
EE → GEI → GB (H4)	0,088	0,058	1,528	0,127	Rejected
TL*EE → GEI (H5)	-0,223	0,089	2,522	0,012	Rejected

Source: Processed Primary Data, 2025

Based on the results of the PLS-SEM analysis shown in Table 7, employee engagement (EE) has a positive and significant effect on green behavior (GB) ($p = 0.046 < 0.05$), and EE also has a positive and significant effect on green employee involvement (GEI) ($p = 0.016 < 0.05$). Furthermore, GEI has a positive and significant effect on GB ($p = 0.014 < 0.05$), while the interaction term between transformational leadership (TL) and EE has a negative and significant effect on GEI ($p = 0.012 < 0.05$). In contrast, the indirect effect of EE on GB through GEI was positive but not significant ($p = 0.127 > 0.05$). Therefore, hypotheses H1, H2, and H3 are supported or accepted in this study, while H4 and H5 are not supported.

Discussion

Employee Engagement Has a Positive Effect on Green Behavior

The results of the first hypothesis testing indicate that employee engagement (EE) has a positive and significant effect on green behavior (GB), with a p-value of 0.046 (< 0.05) and a coefficient of 0.275. This finding supports the hypothesis that the higher the employees' engagement with their work, the greater their tendency to display environmentally friendly behavior in the workplace. This result is consistent with the studies of (Ababneh, 2021; Ali Ababneh et al., 2021), who confirmed that emotional attachment and commitment to sustainability goals drive the emergence of green behavior. The descriptive analysis also reinforced this evidence, showing that most respondents reported a high level of enthusiasm for their jobs. Similarly, (Saks, 2006) and (Robertson & Barling, 2012) found that employee engagement fosters pro-organizational behavior, including sustainability initiatives.

In the context of Islamic banking, employee engagement is not only organizational but also spiritual, reflecting Islamic values such as maslahah, which emphasizes contributions to social and environmental sustainability (Dusuki & Abdullah, 2007; Haniffa & Hudaib, 2007). Accordingly, employee engagement strengthens the role of Islamic banks as both agents of development and agents of sustainability. High employee engagement also supports the successful implementation of green banking, which involves environmentally oriented practices such as energy efficiency, digitalized transactions, financing of eco-friendly projects, and the introduction of green financial products (Ali & Parveen, 2018; Khan et al., 2024). Previous studies have demonstrated that green banking practices supported by employees' environmental awareness can enhance bank reputation, build customer trust, and broaden the contribution of banks to achieving the Sustainable Development Goals (SDGs) (Khan et al., 2024).

Moreover, employees' engagement in green behavior is associated with a stronger preference for green investment. Recent studies confirm the existence of behavioral consistency between individuals' pro-environmental lifestyles and their investment decisions, showing that individuals who practice sustainable behaviors in daily life are more likely to invest in green financial instruments such as green bonds, green sukuk, or green mutual funds (Chen et al., 2023). This suggests that employee engagement not only drives internal greening at the organizational level but also extends its implications to the broader green finance ecosystem. Consequently, Islamic banks can play a dual role: fostering green employee behavior while simultaneously promoting the penetration of green investment in financial markets.

This study contributes to the literature in several ways. First, it provides empirical evidence that employee engagement plays a strategic role in shaping employees' green behavior, particularly in Islamic banking, which has been relatively underexplored compared to conventional banking (Ali et al., 2020; Ali & Parveen, 2018; Tang et al., 2023). Second, the study bridges employee engagement with green banking practices and green investment preferences, offering a novel perspective that engagement is not only an internal human resource management issue but also a driver of green transformation in the financial sector. Third, the study incorporates Islamic values such as maslahah into the Green Human Resource Management (GHRM) framework, underscoring the relevance of employee engagement as a strategic foundation for building a sustainable organizational culture in Islamic banking.

Employee Engagement Has a Positive Effect on Green Employee Involvement

The results of the second hypothesis testing indicate that employee engagement (EE) has a positive and significant effect on green employee involvement (GEI), with a p-value of 0.016 (< 0.05) and a coefficient of 0.315. This finding supports the hypothesis that employees who are highly engaged in their work are more likely to participate actively in sustainability practices within the workplace.

Such involvement reflects their sense of belonging and their belief that their contributions are meaningful to organizational success. This result is consistent with the study of (Kim et al., 2017), which revealed that engaged employees are more proactive in supporting sustainability initiatives because they perceive their roles as central to organizational progress. The descriptive evidence in this study also indicated that most respondents felt “immersed in their work,” which signals higher levels of involvement and commitment. Similarly, the studies of (Karatepe et al., 2022), (Marini et al., 2023), and (Suliman et al., 2023) provide further confirmation that employee engagement fosters active participation in green initiatives. Within the Green Human Resource Management (GHRM) framework, engagement becomes a crucial mechanism through which sustainability policies are transformed into tangible actions by employees (Paillé et al., 2014).

More importantly, employee engagement-driven involvement extends its relevance to the broader domain of green investment. Employees who actively participate in sustainability initiatives within their organizations are also more inclined to advocate and support eco-friendly investment strategies. Recent evidence highlights the behavioral consistency between individual pro-environmental actions and financial decision-making, where individuals who engage in sustainable behaviors in their daily lives tend to allocate a larger share of their resources to green investments such as green bonds, green sukuk, or green mutual funds (Chen et al., 2023). Thus, fostering green employee involvement within Islamic banks can not only enhance internal sustainability performance but also shape a workforce that actively supports the development and promotion of green financial products. In the context of Islamic banking, this involvement is further reinforced by religious values such as the principle of maslahah, which emphasizes generating societal and environmental benefits beyond financial returns (Dusuki & Abdullah, 2007). When employees are engaged and involved in green initiatives, they contribute to a dual transformation: internally, by embedding sustainability within daily operations, and externally, by supporting the expansion of green investments aligned with the maqasid al-shariah. Consequently, employee engagement plays a strategic role in building a culture of sustainability that simultaneously strengthens organizational performance and accelerates the growth of Islamic green finance.

This study contributes to the existing body of knowledge in several ways. It provides empirical evidence on the direct role of employee engagement in fostering green employee involvement, a relationship that has been underexplored in the Islamic banking sector compared to conventional financial institutions (Ali et al., 2020; Ali & Parveen, 2018; Tang et al., 2023). By linking employee involvement with green investment, this research expands the discussion beyond internal organizational outcomes and highlights the role of human engagement in shaping external financial practices. In doing so, it demonstrates that engaged employees are not only drivers of internal sustainability initiatives but also advocates for green financial products such as green sukuk and green bonds. Furthermore, this study enriches the GHRM literature by integrating Islamic values such as maslahah, showing that employee engagement in Islamic banks can serve as a unique bridge between organizational sustainability and the growth of green finance in alignment with shariah principles.

Green Employee Involvement Has a Positive Effect on Green Behavior

The results of the third hypothesis testing indicate that green employee involvement (GEI) has a positive and significant effect on green behavior (GB), with a p-value of 0.014 (< 0.05) and a coefficient of 0.362. This finding supports the hypothesis that employees' involvement in sustainability practices stimulates the emergence of environmentally friendly behavior in the workplace. The result is consistent with the findings of Tang et al. (2018), who emphasized that employee participation in sustainability programs enhances the consistency of green behavior in daily organizational activities. The descriptive evidence from this study also showed that the majority of employees were already engaged in eco-conscious actions such as turning off unused electronic devices, which reflects a high degree of ecological awareness. Similarly, (Renwick et al., 2013) and (Daily et al., 2009) confirmed that employee involvement in sustainability initiatives has a direct effect on improving both in-role and extra-role green behavior. Within the Green Human Resource Management (GHRM) framework, GEI functions as a crucial mediator that translates strategic sustainability policies into practical and operational behaviors among employees.

Beyond the internal organizational dimension, the positive influence of GEI on GB also has broader implications for the advancement of green banking and green investment. In Islamic banking, employees who are actively involved in sustainability initiatives not only embody eco-friendly behaviors in the workplace but also help promote a culture of environmental stewardship that can enhance the bank's legitimacy and trustworthiness in the eyes of stakeholders. This involvement is crucial for the effective implementation of green banking practices, such as reducing operational emissions, promoting paperless transactions, and supporting environmentally friendly financing schemes (Khan et al., 2024). Furthermore, employees with high levels of green involvement are more likely to support and advocate for the development of green financial instruments. Recent studies confirm that individuals who consistently engage in sustainable practices are more inclined to invest in or endorse green financial products such as green bonds, green sukuk, or green mutual funds (Chen et al., 2023). Thus, green employee involvement serves as a vital link that not only strengthens internal sustainability performance but also extends its influence to the growth of green investment markets.

In the Islamic banking context, the relationship between GEI and GB is reinforced by Islamic ethical principles such as maslahah, which stresses the importance of collective benefits for society and the environment (Dusuki & Abdullah, 2007). Active employee involvement in sustainability reflects not only organizational commitment but also spiritual responsibility, aligning workplace practices with shariah values. In this regard, GEI contributes to a dual transformation: internally, it ensures that employees adopt pro-environmental behaviors, and externally, it positions Islamic banks as key players in promoting and legitimizing green financial instruments that align with both environmental and religious objectives.

This study contributes to the literature by offering several insights. First, it empirically demonstrates that GEI is a key antecedent of green behavior, thereby validating the notion that employee involvement is a catalyst for fostering both in-role and extra-role pro-environmental actions (Renwick et al., 2013; Tang et al., 2018). Second, it extends the scope of GHRM research by linking employee involvement not only to internal organizational sustainability but also to external financial practices, particularly green investment, which has been less studied in the context of Islamic banking. Third, the study integrates Islamic values, particularly maslahah, into the conceptual framework, highlighting how green employee involvement can serve as a unique bridge between organizational sustainability practices and the expansion of Islamic green finance. By doing so, the research provides theoretical enrichment to the GHRM literature and practical implications for Islamic banks seeking to enhance both sustainability culture and financial innovation in alignment with shariah.

Green Employee Involvement Mediates the Relationship Between Employee Engagement and Green Behavior

The results of the fourth hypothesis testing indicate that green employee involvement (GEI) does not mediate the relationship between employee engagement (EE) and green behavior (GB), with a coefficient value of 0.114 and a p-value of 0.079 (> 0.05). This finding suggests that although EE has a direct effect on both GEI and GB, GEI does not serve as a significant mediating mechanism in this relationship. Consequently, the fourth hypothesis (H4) is not supported. This result diverges from the findings of Mensah et al. (2023), who emphasized that GEI could act as a bridge linking EE to GB. The descriptive evidence in this study reveals that employees' involvement in sustainability is often administrative or symbolic in nature, which reduces its ability to fully explain the emergence of actual green behavior.

This outcome is consistent with the perspectives of (Kim et al., 2017) and (Robertson & Barling, 2012), who argued that highly engaged employees may directly demonstrate pro-environmental behaviors without necessarily passing through formalized mechanisms such as GEI. In line with (Wesselink et al., 2015), GEI that is misaligned with the type of green behavior expected by the organization tends to fail as a mediating variable. Therefore, in the context of this study, employee involvement in sustainability programs is not yet sufficiently robust to mediate the link between engagement and green behavior.

From the perspective of green banking and green investment, these findings carry important implications. While engagement can directly inspire green behavior among employees, the absence of a mediating effect from GEI may suggest that organizational sustainability initiatives in Islamic banks are still limited to surface-level activities, such as campaigns, administrative checklists, or compliance-driven practices, rather than deeply embedded cultural changes. As a result, employees' involvement has not been strong enough to create a systemic transformation toward more consistent ecological behavior. This limitation also explains why the alignment between GEI and the promotion of green financial products remains weak. In contrast, employees with high engagement can independently support green banking practices—such as advocating for paperless operations, promoting eco-friendly financing, or encouraging green investment portfolios—even without the structured channel of GEI.

This study contributes to the literature by highlighting that GEI does not always play a mediating role between EE and GB, particularly in the context of Islamic banking. First, it provides empirical evidence that direct pathways from engagement to behavior may be more influential than mediated pathways when involvement is symbolic rather than substantive (Kim et al., 2017; Wesselink et al., 2015). Second, the findings add nuance to the GHRM literature by showing that organizational sustainability practices require stronger alignment between employee involvement programs and the specific types of green behavior expected from employees. Third, this study underscores the need for Islamic banks to design more substantive and transformative green involvement mechanisms—ones that go beyond symbolic gestures and actively connect employees' engagement to strategic goals of green banking and green investment. Strengthening this alignment could position GEI as a more effective mediator in the future, thereby enhancing both organizational sustainability performance and the growth of Islamic green finance.

Transformational Leadership Moderates the Relationship Between Employee Engagement and Green Employee Involvement

The results of the fifth hypothesis testing indicate that transformational leadership (TL) negatively moderates the relationship between employee engagement (EE) and green employee involvement (GEI), with a coefficient of –0.223 and a p-value of 0.012 (< 0.05). This finding rejects the hypothesis that TL strengthens the link between EE and GEI. Instead, the results reveal that TL weakens the influence of engagement on employees' involvement in sustainability activities. The descriptive analysis shows that most employees perceive their leaders as having a strong vision; however, this vision appears to shift employees' motivation for involvement from an internal drive to compliance with the leader's direction. This suggests that the dominance of transformational leadership may reduce employees' personal initiative to participate actively in sustainability programs.

From the perspective of Self-Determination Theory (Deci & Ryan, 2000), intrinsic motivation is critical in fostering voluntary behaviors such as GEI. When leaders exert excessive influence or control, employees' intrinsic motivation may be replaced by external pressure, which can reduce voluntary participation and increase psychological strain (Bakker & Demerouti, 2007). While transformational leadership is theoretically expected to enhance employee involvement in organizational goals (Bass & Riggio, 2006), these findings indicate that in the absence of explicit integration of sustainability values, such leadership may become counterproductive. Consistent with (Graves et al., 2013), the effectiveness of transformational leadership in promoting green behavior depends on the extent to which sustainability principles are embedded in the vision and mission articulated by leaders.

These findings have important implications for the context of Islamic banking, particularly in relation to green banking and green investment. Although strong leadership is necessary to align employees with organizational goals, overemphasis on leader-centric direction risks diminishing employees' intrinsic commitment to sustainability. In the setting of green banking, this could result in employee involvement being perceived as a compliance activity rather than a voluntary, value-driven contribution. Consequently, employees may be less likely to champion green financial products, such as green bonds or green sukuk, because their involvement stems from external guidance rather than personal conviction. Research on green finance suggests that authentic, internally driven pro-environmental commitment is a stronger predictor of support for green investment instruments compared to involvement based on compliance (Chen et al., 2023). Thus, unless transformational leadership explicitly integrates sustainability values, it may inadvertently hinder employees from taking initiative in promoting eco-friendly financial innovations.

This study makes several contributions to the literature. First, it challenges the dominant assumption that transformational leadership always enhances the relationship between engagement and sustainability-related behaviors, showing instead that its effects may be contingent and context-dependent. Second, it provides empirical evidence from the Islamic banking sector that overreliance on leader-driven motivation can weaken voluntary employee involvement, which is essential for the success of green HRM initiatives. Third, by linking the moderating role of TL with the advancement of green banking and green investment, this research highlights the need for leaders to embed sustainability explicitly within their transformational practices. Doing so can align employees' intrinsic motivation with organizational sustainability goals, thereby reinforcing both internal cultural transformation and the external promotion of Islamic green finance in accordance with maqasid al-shariah.

CONCLUSION

This study demonstrates that employee engagement significantly enhances green behavior and green employee involvement, yet the mediating role of involvement and the moderating effect of transformational leadership reveal nuanced dynamics, where overemphasis on leader-driven direction can weaken intrinsic motivation for sustainability. These findings highlight that in Islamic banking, embedding sustainability values explicitly within organizational culture and leadership practices is crucial for translating employee motivation into consistent ecological behaviors that support both green banking operations and the growth of green investment instruments such as green bonds and green sukuk.

Limitations and Implications

Despite offering important insights, this study is subject to several limitations. First, the relatively small sample size (n = 80) may restrict the generalizability of the findings across the broader Islamic banking industry. While the sample size remains acceptable for exploratory analysis, future studies are encouraged to employ larger and more diverse samples, potentially across multiple Islamic financial institutions or regions, to enhance statistical power and external validity.

Second, this study relies on self-reported data, which may be subject to common method bias and social desirability effects, particularly in the context of green behavior and Islamic values. Future research could incorporate multi-source data, such as supervisor assessments.

This study contributes to the literature on green behavior and sustainable human resource management by clarifying the distinct and interrelated roles of employee engagement, employee involvement, and transformational leadership within the Islamic banking context. For practitioners, strengthening authentic employee involvement through participatory green programs rather than compliance-oriented initiatives is essential to foster a workforce that actively supports sustainable finance. Regulators should design policies that integrate maqasid al-shariah with ESG frameworks, ensuring that green investment is driven by intrinsic values as well as external incentives. Given the study's scope, which was limited to two Islamic banks with a relatively small sample size, future research should expand to multi-regional and cross-country contexts, adopt longitudinal designs, and explore digital green HRM practices to better capture how employee-driven sustainability initiatives can accelerate the penetration of Islamic green finance globally.

For the theoretical contributions, this research uses the AMO theoretical framework to develop a relevant model of green behavior. In defining the variables, the author contributes by adapting and refining the definitions to make them more applicable to the Indonesian context or other countries that share similar characteristics. Therefore, future research may utilize these definitions with a larger sample to examine the development of this concept in countries with comparable contexts.

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