

BUILDING A GREEN BUSINESS ECOSYSTEM: THE ROLE OF GREEN VOICE BEHAVIOR, WORK ENGAGEMENT, AND LEADER SUPPORT IN MSME SUSTAINABILITY

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Abstract

This study examines the effect of Green Voice Behavior on Organizational Sustainability, with Work Engagement as a mediating variable and Leader Support as a moderating variable. The study focuses on employees of Micro, Small, and Medium Enterprises (MSMEs) assisted by Bank Indonesia Purwokerto. Using a quantitative explanatory research design, data were collected through questionnaires from 40 respondents selected using purposive sampling. The data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS 4. The findings indicate that Green Voice Behavior does not have a positive direct effect on Organizational Sustainability but has a positive effect on Work Engagement. Work Engagement positively affects Organizational Sustainability and mediates the relationship between Green Voice Behavior and Organizational Sustainability. Furthermore, Leader Support moderates the relationship between Green Voice Behavior and Organizational Sustainability. These findings highlight the importance of providing employees with opportunities to express environmentally oriented ideas and suggestions while ensuring adequate support from leaders. By fostering employee engagement and responding constructively to employees' green ideas, MSMEs can better translate employee participation into organizational practices that contribute to long-term sustainability.

Keywords: Green Voice Behavior; Organizational Sustainability; Work Engagement; Leader Support; MSMEs

INTRODUCTION

Climate change, increasing pressure on natural resources, and growing market demand for environmentally friendly products have encouraged businesses to adopt more sustainable practices. Sustainability is no longer viewed solely as an environmental issue but has become a strategic necessity for maintaining business continuity, competitiveness, and long-term adaptability. Organizations are therefore expected to pursue economic objectives while considering the social and environmental impacts of their activities. Martins et al. (2022) emphasize that sustainability issues have transformed the corporate landscape and become an important determinant of business success. This growing importance applies not only to large corporations but also to Micro, Small, and Medium Enterprises (MSMEs), whose collective activities have significant economic, social, and environmental implications.

The importance of MSME sustainability is particularly evident in Indonesia, where MSMEs contribute more than 60% of the national Gross Domestic Product and absorb nearly 97% of the

workforce (KemenkopUKM, 2023). Their substantial role indicates that MSME sustainability is closely associated with national economic resilience, employment creation, and regional economic development. This concern has also become part of Bank Indonesia's institutional agenda. Through the *Green MSME Development Guidelines*, Bank Indonesia (2024) emphasizes that increasing environmental awareness and demand for environmentally friendly products require MSMEs to innovate and transform their business practices to support the green economy. Bank Indonesia's Green MSME development framework addresses four main aspects, there are production, marketing, human resources, and finance. Demonstrating that green transformation involves not only environmentally friendly products but also internal organizational capabilities and business processes.

However, the transition toward sustainable MSMEs cannot rely solely on technical improvements in production, marketing, financing, or financial management. It also requires internal organizational readiness, particularly from the human resource perspective. Sustainability practices in MSMEs are often implemented through everyday activities, including efficient use of raw materials and energy, waste reduction, process improvement, and other environmentally responsible work practices. Employees are directly involved in these activities and may possess valuable knowledge about operational inefficiencies and potential improvements. As Moilanen and Toikka (2023) emphasize, employees' perspectives are important for understanding sustainability transitions in the workplace because such changes are ultimately experienced and implemented by employees themselves.

One way employees can actively contribute to sustainability is through Green Voice Behavior, which refers to employees' voluntary expression of ideas, suggestions, and concerns related to environmental issues and improvements in environmentally responsible workplace practices (Hu et al., 2025). Employees who are directly involved in operational activities may identify waste, inefficiencies, or practices that do not support sustainability and propose potential improvements. Green Voice Behavior can therefore function as a bottom-up mechanism that allows organizations to obtain sustainability-related insights from employees. Tabrizi et al. (2023) further explain that green voice may involve proposing improvements to environmental practices or raising concerns about practices that could negatively affect the environment. Previous empirical evidence also suggests that green employee voice can contribute to Organizational Sustainability by facilitating employee-generated ideas, knowledge, and participation in sustainable organizational practices (Seraj et al., 2025).

Nevertheless, Green Voice Behavior may not necessarily contribute to Organizational Sustainability through a direct mechanism alone. Work Engagement may provide a psychological mechanism through which employees' green contributions develop into stronger involvement in organizational objectives. Based on Kahn's Engagement Theory, individuals become engaged when they invest themselves physically, cognitively, and emotionally in their work roles (Kahn, 1990). Employees who express environmentally oriented ideas and perceive their contributions as meaningful may become more strongly involved in their work. Previous studies have demonstrated a positive relationship between employee voice and Work Engagement (Yücel & Gürler, 2019; Weiss & Zacher, 2022). Furthermore, Qurratu'aini and Fahriani (2022) found that engagement contributes positively to Organizational Sustainability and can serve as a mediating mechanism in achieving sustainability. Thus, Work Engagement may explain how Green Voice Behavior develops from the expression of environmentally oriented ideas into stronger employee involvement that supports Organizational Sustainability.

In addition to employees' psychological involvement, the effectiveness of Green Voice Behavior may depend on Leader Support. This factor is particularly important in MSMEs, where relatively simple organizational structures mean that the implementation of employee ideas often depends on business owners or direct supervisors. From the perspective of Social Exchange Theory, workplace relationships involve reciprocal exchanges in which employees who receive support and

positive treatment are more likely to respond through constructive behaviors that benefit the organization (Cropanzano & Mitchell, 2005). In this context, leaders who listen to, support, and respond to employees' ideas may create conditions that enable Green Voice Behavior to contribute more effectively to Organizational Sustainability. Conversely, without adequate support and follow-up, employees' green ideas may remain suggestions rather than being translated into actual organizational practices.

Despite the growing attention to MSME sustainability, research examining internal organizational factors, particularly employee behavior, still requires further development. Existing studies on Green Voice Behavior have frequently positioned it as an outcome of green organizational practices, whereas research examining Green Voice Behavior as a potential driver of Organizational Sustainability remains relatively limited, particularly in the context of MSMEs assisted by Bank Indonesia. Furthermore, the relationship between Green Voice Behavior and Organizational Sustainability may involve both psychological and contextual mechanisms that require further investigation. This study addresses this gap by examining Work Engagement as a mediating mechanism and Leader Support as a moderating factor in the relationship between Green Voice Behavior and Organizational Sustainability.

Accordingly, this study aims to examine the effect of Green Voice Behavior on Organizational Sustainability, with Work Engagement as a mediating variable and Leader Support as a moderating variable among employees of MSMEs assisted by Bank Indonesia Purwokerto. The study contributes theoretically by positioning Green Voice Behavior not only as an outcome of organizational conditions but also as a potential antecedent of Organizational Sustainability, while integrating Work Engagement and Leader Support into a single research model. Practically, the study provides insights for MSME leaders and Bank Indonesia regarding the importance of strengthening the human resource dimension of green MSME development. Encouraging employees to express environmentally oriented ideas, fostering their engagement with their work, and providing adequate leadership support may help transform employee participation into organizational practices that contribute to long-term sustainability.

LITERATURE REVIEW AND HYPOTHESIS FORMULATION

Kahn's Engagement Theory

Kahn's Engagement Theory provides a theoretical foundation for understanding how individuals become psychologically involved in their work roles. According to Kahn (1990), personal engagement occurs when individuals express themselves physically, cognitively, and emotionally while performing their work roles. This engagement is influenced by three psychological conditions: psychological meaningfulness, psychological safety, and psychological availability. Psychological meaningfulness refers to the extent to which individuals perceive their work and contributions as valuable; psychological safety reflects the ability to express oneself without fear of negative consequences; and psychological availability refers to an individual's readiness to invest personal resources and energy in work.

In this study, Kahn's Engagement Theory explains the psychological mechanism connecting Green Voice Behavior, Work Engagement, and Organizational Sustainability. When employees voluntarily express ideas, suggestions, or concerns regarding environmentally responsible workplace practices, they actively participate in organizational improvement rather than merely performing their formal responsibilities. Such participation may strengthen employees' perceptions that their contributions are meaningful to the organization, thereby increasing their engagement at work. Engaged employees, in turn, are more likely to invest their energy and dedication in achieving broader organizational objectives, including sustainability. Therefore, Kahn's Engagement Theory provides the theoretical basis for explaining both the relationship between Green Voice

Behavior and Work Engagement and the mediating role of Work Engagement in the relationship between Green Voice Behavior and Organizational Sustainability.

Social Exchange Theory

Social Exchange Theory (SET) explains organizational relationships through the principle of reciprocity. According to Cropanzano and Mitchell (2005), employees who receive support, recognition, and positive treatment from their organization or leaders tend to reciprocate through constructive attitudes and behaviors that benefit the organization. Social exchanges involve not only material resources but also relational elements such as trust, recognition, and social support. Shanock and Eisenberger (2006) similarly demonstrate that supervisory support can influence employees' perceptions of organizational support and subsequent workplace outcomes.

In this study, SET provides a theoretical basis for understanding the role of Leader Support in the relationship between Green Voice Behavior and Organizational Sustainability. Employees may voluntarily contribute environmentally oriented ideas and suggestions, but the organizational value of such contributions depends partly on how leaders respond to them. When leaders demonstrate openness, provide support, and follow up on employee suggestions, employees' green contributions are more likely to be recognized and translated into organizational practices. Therefore, Leader Support represents a relational condition that may strengthen the contribution of Green Voice Behavior to Organizational Sustainability.

Green Voice Behavior and Organizational Sustainability

Green Voice Behavior represents employees' voluntary expression of ideas, suggestions, and concerns intended to improve environmental practices within an organization (Hu et al., 2025). In MSMEs, employees are directly involved in daily operational activities and may therefore identify sustainability-related problems such as inefficient use of raw materials, waste generation, excessive energy consumption, or environmentally unsustainable work processes. By communicating these concerns and proposing improvements, employees provide organizations with information originating from individuals who are directly involved in the operational sources of these problems.

Green Voice Behavior may therefore contribute to Organizational Sustainability by enabling organizations to identify problems, improve workplace practices, and respond more effectively to sustainability requirements. From the perspective of Social Exchange Theory, constructive employee behaviors can represent positive contributions to organizational objectives (Cropanzano & Mitchell, 2005). In this context, Green Voice Behavior represents a constructive contribution because it provides organizations with environmentally oriented ideas and suggestions that may facilitate improvements in sustainability practices. Empirical research by Hu et al. (2025) supports the relevance of Green Voice Behavior to organizational sustainability, while Seraj et al. (2025) found that green employee voice positively contributes to Organizational Sustainability. Based on these theoretical arguments and empirical findings, the following hypothesis is proposed:

H1: Green Voice Behavior has a positive effect on Organizational Sustainability.

Green Voice Behavior and Work Engagement

Green Voice Behavior not only reflects employees' environmental awareness but also demonstrates their active participation in their work and organizational improvement. Employees who voluntarily communicate environmentally oriented ideas and suggestions extend their contribution beyond the completion of formal job responsibilities. Through this participation, employees may perceive that their ideas are valuable and that they have a meaningful role in improving organizational practices.

This relationship can be explained through Kahn's Engagement Theory. Kahn (1990) argues that engagement develops when individuals experience psychological meaningfulness, psychological safety, and psychological availability in their work roles. When employees have

opportunities to express green ideas and contribute to workplace improvements, they may experience greater meaningfulness because their contributions have value beyond their routine tasks. This sense of meaningful contribution may strengthen their psychological connection to their work.

Previous empirical evidence supports the relationship between employee voice and engagement. Yücel and Gürlü (2019) found a positive and significant relationship between employee voice and Work Engagement. Similarly, Weiss and Zacher (2022) demonstrated that voice can enhance job engagement through perceived voice appreciation, suggesting that employees become more engaged when they perceive that their contributions are valued. Accordingly, Green Voice Behavior is expected to strengthen employees' involvement and psychological connection with their work. Therefore, the following hypothesis is formulated:

H2: Green Voice Behavior has a positive effect on Work Engagement.

Work Engagement and Organizational Sustainability

Work Engagement reflects a positive psychological state characterized by employees' energy, dedication, and involvement in their work. According to Kahn (1990), engaged employees invest themselves physically, cognitively, and emotionally in performing their work roles. Schaufeli (2017) further conceptualizes Work Engagement through vigor, dedication, and absorption, indicating that engaged employees demonstrate energy, commitment, and concentration in performing their work.

Work Engagement is relevant to Organizational Sustainability because sustainability requires consistent employee participation rather than relying solely on formal organizational policies. Employees with high levels of engagement are more likely to invest effort in their responsibilities and support long-term organizational objectives. In the context of MSMEs, such involvement is particularly important because employees directly participate in operational activities that influence resource utilization, efficiency, and sustainable workplace practices.

Khusanova et al. (2021) emphasize the importance of Work Engagement within the human dimension of Organizational Sustainability. Furthermore, Qurratu'aini and Fahriani (2022) found that engagement positively affects Organizational Sustainability. These findings indicate that employees who demonstrate stronger involvement in their work are more likely to contribute consistently to organizational objectives, including sustainability. Based on these arguments, the following hypothesis is proposed:

H3: Work Engagement has a positive effect on Organizational Sustainability.

The Mediating Role of Work Engagement

The effect of Green Voice Behavior on Organizational Sustainability may not occur exclusively through a direct relationship. Instead, Work Engagement may serve as a psychological mechanism through which employees' environmentally oriented voice develops into a more sustained contribution to organizational objectives. When employees express ideas and suggestions concerning environmentally responsible workplace practices, they not only provide information to the organization but may also develop a stronger perception that their contributions are meaningful.

Kahn's Engagement Theory provides the theoretical basis for this mediating mechanism. According to Kahn (1990), psychological meaningfulness encourages individuals to invest themselves more fully in their work roles. In this study, participation through Green Voice Behavior may strengthen employees' sense of meaningful contribution, thereby increasing their Work Engagement. Greater engagement may subsequently encourage employees to invest more energy and dedication in organizational objectives, including Organizational Sustainability. This proposed mechanism is also supported by previous empirical findings. Weiss and Zacher (2022) demonstrated that employee voice is positively associated with job engagement, while Qurratu'aini and Fahriani

(2022) showed that engagement can serve as a mediating mechanism in achieving Organizational Sustainability. Therefore, Work Engagement is expected to function as a psychological bridge through which Green Voice Behavior contributes to Organizational Sustainability. Based on these arguments, the following hypothesis is formulated:

H4: Work Engagement mediates the effect of Green Voice Behavior on Organizational Sustainability.

The Moderating Role of Leader Support

Although Green Voice Behavior has the potential to contribute to Organizational Sustainability, its effectiveness may depend on contextual conditions within the organization, particularly Leader Support. Employees may communicate environmentally oriented ideas and identify opportunities for improvement, but these suggestions cannot necessarily be implemented without organizational authority, resources, and managerial follow-up. This condition is particularly relevant in MSMEs, where decision-making is often concentrated among business owners or direct leaders.

Leader Support can therefore determine whether Green Voice Behavior remains at the level of employee suggestions or develops into actual organizational practices. Leaders who demonstrate openness toward employee ideas, provide guidance, and support the implementation of relevant suggestions may create conditions in which Green Voice Behavior generates a stronger contribution to sustainability. Landa et al. (2023) indicate that Leader Support contributes to the acceptance and integration of organizational change, highlighting the importance of leadership in translating ideas and changes into organizational practices.

This moderating relationship can also be understood through Social Exchange Theory. When employees perceive support from their leaders, positive reciprocal relationships are more likely to develop, encouraging constructive contributions to organizational objectives (Cropanzano & Mitchell, 2005; Shanock & Eisenberger, 2006). In the context of sustainability, Leader Support may increase the effectiveness of employees' green ideas by providing the recognition, direction, and follow-up required for these ideas to influence organizational practices. Therefore, the contribution of Green Voice Behavior to Organizational Sustainability is expected to become stronger when employees perceive higher levels of Leader Support. Based on these arguments, the following hypothesis is proposed:

H5: Leader Support moderates the effect of Green Voice Behavior on Organizational Sustainability, such that the positive effect becomes stronger when Leader Support is higher.

RESEARCH METHODS

Research Design

This study employed a quantitative approach with an explanatory research design to examine the relationships among Green Voice Behavior, Work Engagement, Leader Support, and Organizational Sustainability. The research model was developed to investigate the direct effect of Green Voice Behavior on Organizational Sustainability, the mediating role of Work Engagement, and the moderating role of Leader Support. Primary data were collected through a structured questionnaire administered to employees of Micro, Small, and Medium Enterprises (MSMEs) assisted by Bank Indonesia Purwokerto.

Population and Sample

The target population consisted of employees working in MSMEs assisted by Bank Indonesia Purwokerto. These MSMEs are distributed across Banyumas, Banjarnegara, Purbalingga, and Cilacap Regencies. The unit of analysis was the individual employee, as employees are directly

involved in daily operational activities and are therefore relevant for assessing Green Voice Behavior, Work Engagement, Leader Support, and Organizational Sustainability.

The study employed a purposive sampling technique to select respondents who met the predetermined research criteria. A total of 40 respondents participated in the study and provided valid responses for further analysis. The use of purposive sampling was intended to ensure that respondents were employees who were actively working in MSMEs assisted by Bank Indonesia Purwokerto and were therefore able to provide information relevant to the research variables.

Data Collection and Measurement

Primary data were collected using a structured questionnaire consisting of respondent characteristics and measurement items for the four research constructs: Green Voice Behavior, Organizational Sustainability, Work Engagement, and Leader Support. Respondents evaluated each statement using a Likert scale to indicate their level of agreement with the items presented.

Green Voice Behavior was measured based on employees' voluntary behavior in expressing environmentally oriented ideas, suggestions, and concerns regarding workplace practices. Organizational Sustainability was measured to reflect the organization's ability to maintain sustainability across its relevant organizational dimensions. Work Engagement captured employees' psychological involvement in their work, while Leader Support measured employees' perceptions of the support provided by their leaders in performing their work and contributing to the organization. The measurement items for each construct were adapted from established instruments and previous studies referenced in the research framework.

Data Analysis

The data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS 4. PLS-SEM was employed because the research model simultaneously examines direct relationships, mediation, and moderation among latent constructs. The analysis followed two main stages: assessment of the measurement model (outer model) and assessment of the structural model (inner model).

The measurement model was evaluated to determine the validity and reliability of the research constructs. Convergent validity was assessed using outer loadings and Average Variance Extracted (AVE), while construct reliability was evaluated using Cronbach's alpha and composite reliability. Discriminant validity was assessed using the Heterotrait-Monotrait Ratio (HTMT). Indicators that did not meet the required measurement criteria were removed during the measurement model evaluation to obtain a valid and reliable final model.

The structural model was subsequently evaluated to examine the relationships among the constructs. Collinearity was assessed using the Variance Inflation Factor (VIF), while the model's explanatory power was evaluated using the coefficient of determination (R^2). Effect size (f^2) was examined to assess the contribution of individual predictor constructs to the endogenous constructs. Hypothesis testing was conducted using the bootstrapping procedure by examining the path coefficients, t-statistics, and p-values. The mediation effect of Work Engagement was assessed through the specific indirect effect of Green Voice Behavior on Organizational Sustainability, whereas the moderating effect of Leader Support was examined through the interaction term between Leader Support and Green Voice Behavior in predicting Organizational Sustainability. The analytical procedures were conducted in accordance with the PLS-SEM guidelines described by Hair et al. (2021).

RESULTS AND DISCUSSION

Measurement Model Assessment

The measurement model was evaluated to ensure the reliability and validity of the constructs before examining the structural relationships. The assessment included indicator reliability, internal consistency reliability, convergent validity, and discriminant validity.

The indicator reliability assessment showed that all indicators retained in the final measurement model had outer loading values above the recommended threshold of 0.708. Therefore, all indicators in the final model were considered capable of adequately representing their respective constructs. The internal consistency assessment further demonstrated that all constructs met the required reliability criteria, as shown in Table 1.

Table 1. Construct Reliability and Convergent Validity

Construct	Cronbach's Alpha	rho_A	Composite Reliability	AVE
Organizational Sustainability	0.951	0.955	0.958	0.694
Green Voice Behavior	0.738	0.745	0.851	0.656
Work Engagement	0.901	0.918	0.922	0.627
Leader Support	0.902	0.915	0.920	0.592

Source: Processed data (2026).

As presented in Table 1, the Cronbach's alpha, rho_A, and composite reliability values of all constructs exceeded 0.70, indicating satisfactory internal consistency reliability. Organizational Sustainability demonstrated a composite reliability value of 0.958, followed by Work Engagement at 0.922, Leader Support at 0.920, and Green Voice Behavior at 0.851. Furthermore, all Average Variance Extracted (AVE) values exceeded the threshold of 0.50, ranging from 0.592 to 0.694. These results indicate that each construct explained more than 50% of the variance in its respective indicators and therefore satisfied the criteria for convergent validity.

Discriminant validity was assessed using the Heterotrait-Monotrait Ratio (HTMT). All HTMT values were below the threshold of 0.90. The highest HTMT value was 0.651 between Green Voice Behavior and Work Engagement, while the remaining values ranged from 0.382 to 0.556. Therefore, the four constructs were empirically distinct from one another, confirming satisfactory discriminant validity. Overall, the measurement model demonstrated adequate reliability, convergent validity, and discriminant validity, allowing the analysis to proceed to the structural model assessment.

Structural Model Assessment and Hypothesis Testing

Before testing the hypotheses, collinearity among the predictor constructs was examined using the Variance Inflation Factor (VIF). The VIF values were 1.351 for Leader Support → Organizational Sustainability, 1.573 for Green Voice Behavior → Organizational Sustainability, 1.905 for Work Engagement → Organizational Sustainability, 1.248 for the interaction between Leader Support and Green Voice Behavior → Organizational Sustainability, and 1.000 for Green Voice Behavior → Work Engagement. As all VIF values were below 5, the structural model did not indicate problematic multicollinearity among the predictor constructs.

Hypothesis testing was conducted using the bootstrapping procedure in SmartPLS 4. The direct effects, mediating effect, and moderating effect examined in the study are summarized in Table 2.

Table 2. Hypothesis Testing Results

Hypothesis	Relationship	Path Coefficient	t-statistic	p-value	Decision
H1	Green Voice Behavior → Organizational Sustainability	-0.036	0.213	0.416	Rejected
H2	Green Voice Behavior → Work Engagement	0.554	4.702	0.000	Accepted

H3	Work Engagement → Organizational Sustainability	0.333	2.008	0.022	Accepted
H4	Green Voice Behavior → Work Engagement → Organizational Sustainability	0.184	1.671	0.047	Accepted
H5	Leader Support × Green Voice Behavior → Organizational Sustainability	0.268	2.116	0.017	Accepted

Source: Processed data (2026).

The results demonstrate that four of the five hypotheses were supported. Green Voice Behavior did not have a significant positive direct effect on Organizational Sustainability ($\beta = -0.036$, $t = 0.213$, $p = 0.416$), resulting in the rejection of H1. However, Green Voice Behavior had a significant positive effect on Work Engagement ($\beta = 0.554$, $t = 4.702$, $p < 0.001$), supporting H2. Work Engagement also had a significant positive effect on Organizational Sustainability ($\beta = 0.333$, $t = 2.008$, $p = 0.022$), supporting H3. The specific indirect effect of Green Voice Behavior on Organizational Sustainability through Work Engagement was positive and significant ($\beta = 0.184$, $t = 1.671$, $p = 0.047$), supporting H4. Finally, the interaction between Leader Support and Green Voice Behavior had a significant positive effect on Organizational Sustainability ($\beta = 0.268$, $t = 2.116$, $p = 0.017$), supporting H5 and indicating a strengthening moderating effect of Leader Support.

Green Voice Behavior and Organizational Sustainability

The results indicate that Green Voice Behavior does not have a positive direct effect on Organizational Sustainability. The path coefficient was -0.036 , with a t -statistic of 0.213 and a p -value of 0.416 . Therefore, H1 was rejected. This finding indicates that employees' behavior in expressing environmentally oriented ideas, suggestions, and concerns has not been demonstrated to directly improve Organizational Sustainability among MSMEs assisted by Bank Indonesia Purwokerto.

This result suggests that Green Voice Behavior alone may be insufficient to produce sustainability outcomes at the organizational level. Employees may demonstrate environmental awareness by proposing energy-saving practices, waste reduction, the utilization of production residues, the use of more environmentally friendly materials, or improvements in operational processes. However, expressing such ideas does not automatically ensure their implementation. Employee suggestions still require managerial decisions, financial resources, adequate facilities, organizational knowledge, and the capacity of MSMEs to incorporate these ideas into their daily business activities.

The finding can also be understood by considering the difference between the level at which Green Voice Behavior occurs and the level at which Organizational Sustainability is achieved. Green Voice Behavior primarily represents an individual-level behavior, whereas Organizational Sustainability constitutes a broader organizational-level outcome. The transition from an employee's idea to an organizational sustainability practice therefore requires an implementation process. An employee may identify an environmentally inefficient practice and communicate an alternative, but the sustainability benefit will only materialize if the organization evaluates, accepts, supports, and implements the proposed change.

This finding differs from previous studies suggesting a positive relationship between employee green voice and Organizational Sustainability, including Seraj et al. (2025). However, the difference does not necessarily indicate that Green Voice Behavior is irrelevant to sustainability. Instead, the present study provides a more contextual explanation of the relationship within MSMEs assisted by Bank Indonesia Purwokerto. In MSMEs, employees may have opportunities to communicate sustainability-related ideas, but the implementation of these ideas is often dependent on business owners or leaders who possess decision-making authority and control organizational resources.

The rejection of H1 therefore provides an important insight into the research model: employee voice should not be interpreted as equivalent to organizational action. Green Voice Behavior may generate potentially valuable environmental ideas, but sustainability outcomes require organizational mechanisms that transform those ideas into actual practices. This interpretation is further supported by the results of H4 and H5, which demonstrate that Work Engagement serves as a significant mediating mechanism and Leader Support serves as a significant moderating condition. Thus, the absence of a significant direct effect does not eliminate the relevance of Green Voice Behavior; rather, it indicates that its contribution to Organizational Sustainability operates through more complex mechanisms.

Green Voice Behavior and Work Engagement

The results demonstrate that Green Voice Behavior has a significant positive effect on Work Engagement, with a path coefficient of 0.554, a t-statistic of 4.702, and a p-value below 0.001. Therefore, H2 was accepted. The positive coefficient indicates that higher levels of Green Voice Behavior are associated with higher levels of Work Engagement among employees of MSMEs assisted by Bank Indonesia Purwokerto.

This finding suggests that employees who actively express environmentally oriented ideas and suggestions tend to develop stronger psychological involvement in their work. When employees communicate ideas concerning environmentally friendly practices, they are not merely completing formal job responsibilities but are actively participating in organizational improvement. Such participation may strengthen employees' perceptions that their work and contributions are meaningful to the organization.

The finding is consistent with Kahn's Engagement Theory, which explains that engagement develops when employees experience psychological meaningfulness, psychological safety, and psychological availability in their work roles (Kahn, 1990). Green Voice Behavior provides employees with an opportunity to express their concerns and contribute ideas beyond their formal tasks. When employees perceive that they can contribute to improving organizational practices, they may develop a stronger sense of connection with their work and become more willing to invest physical, cognitive, and emotional energy in their roles.

This result is also consistent with previous research demonstrating a positive relationship between employee voice and engagement. Yücel and Gürler (2019) found that employee voice is positively associated with Work Engagement, while Weiss and Zacher (2022) showed that voice can increase job engagement through employees' perceptions that their contributions are appreciated. In the context of this study, Green Voice Behavior can therefore be understood not only as an environmentally oriented behavior but also as a form of active employee participation that strengthens employees' psychological relationship with their work.

For MSMEs assisted by Bank Indonesia Purwokerto, this finding indicates that providing opportunities for employees to communicate environmental ideas may have benefits beyond generating suggestions for environmentally friendly practices. Such opportunities may also strengthen employees' involvement in their work. Employees who feel that they can participate in improving organizational practices may perceive themselves as meaningful contributors to the development of the MSME rather than merely individuals responsible for performing assigned tasks.

Work Engagement and Organizational Sustainability

The results show that Work Engagement has a significant positive effect on Organizational Sustainability, with a path coefficient of 0.333, a t-statistic of 2.008, and a p-value of 0.022. Therefore, H3 was accepted. This result indicates that higher Work Engagement among employees

is associated with stronger Organizational Sustainability among MSMEs assisted by Bank Indonesia Purwokerto.

Organizational Sustainability requires more than the existence of formal policies or environmental objectives. Its implementation depends on employees who consistently perform and maintain sustainable practices in everyday organizational activities. Employees with higher levels of engagement tend to demonstrate greater energy, dedication, and involvement in their work. These characteristics can encourage employees to participate more actively in operational improvements, use organizational resources responsibly, and consistently support practices that contribute to long-term organizational objectives.

This finding supports Kahn's Engagement Theory, which conceptualizes engaged employees as individuals who invest themselves physically, cognitively, and emotionally in their work roles (Kahn, 1990). In the context of sustainability, such psychological involvement is important because sustainable organizational practices require employees to translate organizational objectives into daily behaviors. Employees who are psychologically connected to their work are more likely to contribute consistently to organizational processes rather than merely fulfill minimum job requirements.

The result is also consistent with Qurratu'aini and Fahriani (2022), who found that engagement contributes positively to Organizational Sustainability. The present study extends this relationship to employees of MSMEs assisted by Bank Indonesia Purwokerto. This is particularly relevant because MSMEs generally operate with relatively limited human resources and simpler organizational structures. Consequently, the contribution of individual employees to daily operations can have considerable importance for organizational continuity and sustainability.

Thus, the positive relationship between Work Engagement and Organizational Sustainability demonstrates the importance of the human resource dimension in the sustainability transformation of MSMEs. Sustainable development cannot be achieved solely by introducing environmentally friendly technologies or production processes. MSMEs also require employees who are psychologically engaged and willing to contribute consistently to organizational objectives.

The Mediating Role of Work Engagement

The results demonstrate that Work Engagement significantly mediates the effect of Green Voice Behavior on Organizational Sustainability. The specific indirect effect was 0.184, with a t-statistic of 1.671 and a p-value of 0.047. Therefore, H4 was accepted. This finding indicates that Green Voice Behavior can contribute to Organizational Sustainability indirectly by increasing employees' Work Engagement.

This finding is particularly important when interpreted together with the rejection of H1. Green Voice Behavior did not have a significant direct effect on Organizational Sustainability, yet its indirect effect through Work Engagement was significant. This pattern suggests that the contribution of Green Voice Behavior to sustainability does not necessarily occur simply because employees communicate environmentally oriented ideas. Instead, Green Voice Behavior may first strengthen employees' psychological involvement in their work, which subsequently contributes to Organizational Sustainability.

From the perspective of Kahn's Engagement Theory, employees who are given opportunities to express ideas and participate in organizational improvement may experience greater psychological meaningfulness. They can perceive their work as more valuable because their role extends beyond completing routine responsibilities to contributing to broader organizational objectives. This sense of meaningful contribution may strengthen their Work Engagement, encouraging greater energy, dedication, and involvement in organizational activities. Through this increased engagement, employees become more capable of consistently supporting organizational sustainability.

The mediation result therefore identifies Work Engagement as an important psychological mechanism connecting individual green voice with organizational-level sustainability. An employee's environmentally oriented suggestion may not immediately change organizational sustainability. However, the process of actively participating, expressing ideas, and becoming involved in organizational improvement may strengthen the employee's engagement. This engagement can subsequently encourage more sustained contributions to organizational practices.

The finding is consistent with previous evidence showing that voice behavior can increase employee engagement (Weiss & Zacher, 2022; Yücel & Gürler, 2019) and that engagement can contribute to Organizational Sustainability (Qurratu'aini & Fahriani, 2022). The present study connects these relationships by demonstrating that Work Engagement serves as a bridge between Green Voice Behavior and Organizational Sustainability in the context of MSMEs assisted by Bank Indonesia Purwokerto.

This finding also refines the interpretation of Green Voice Behavior in the sustainability context. Its value may not be limited to the environmental content of the suggestions employees provide. The opportunity to participate itself may generate psychological benefits by increasing employees' sense of involvement and meaningful contribution. Therefore, MSMEs seeking to promote sustainability should not only collect employees' environmental suggestions but also create an environment in which employees perceive their participation as meaningful and connected to organizational development.

The Moderating Role of Leader Support

The results demonstrate that Leader Support significantly moderates the effect of Green Voice Behavior on Organizational Sustainability. The interaction term between Leader Support and Green Voice Behavior produced a positive path coefficient of 0.268, with a t-statistic of 2.116 and a p-value of 0.017. Therefore, H5 was accepted. The positive moderation coefficient indicates that Leader Support strengthens the relationship between Green Voice Behavior and Organizational Sustainability.

This finding suggests that the effectiveness of employees' green voice depends partly on the organizational context in which the behavior occurs. Employees may identify environmental problems and communicate ideas for improvement, but they generally do not possess complete authority to implement organizational changes independently. In MSMEs, where decision-making is often concentrated among owners or leaders, managerial support becomes particularly important in determining whether employees' suggestions can be translated into concrete practices.

Leader Support may provide employees with greater confidence to express environmentally oriented ideas because they perceive that their contributions will not be ignored. More importantly, supportive leaders can evaluate, direct, facilitate, and follow up on employee suggestions. Under these conditions, Green Voice Behavior does not remain merely at the level of verbal suggestions but has a greater opportunity to develop into actions that support Organizational Sustainability.

This result is consistent with **Social Exchange Theory**, which explains that positive workplace relationships can encourage reciprocal behaviors that benefit the organization (Cropanzano & Mitchell, 2005). Leader Support represents positive treatment perceived by employees. When employees feel supported, they may become more willing to provide additional contributions, including ideas, suggestions, and concerns regarding environmentally responsible workplace practices.

The finding is also consistent with Shanock and Eisenberger (2006), who highlight the role of supervisory support in employees' perceptions of organizational support and subsequent workplace outcomes. Furthermore, Landa et al. (2023) emphasize the importance of leadership support in facilitating the acceptance and integration of organizational change. Within the context

of this study, Leader Support can therefore be understood as an enabling condition that helps convert employees' environmentally oriented ideas into organizational practices.

The moderating result also helps explain why Green Voice Behavior did not directly affect Organizational Sustainability in H1. Employee voice alone may be insufficient when the organization lacks mechanisms for responding to and implementing employee suggestions. When leaders provide support, however, the relationship becomes stronger because employee ideas receive the organizational backing necessary for implementation. Therefore, the sustainability value of Green Voice Behavior depends not only on employees' willingness to speak but also on leaders' willingness and ability to listen, respond, and act.

Taken together, the findings provide a more nuanced understanding of how Green Voice Behavior contributes to Organizational Sustainability among MSMEs assisted by Bank Indonesia Purwokerto. Green Voice Behavior does not directly improve Organizational Sustainability, but it contributes through two important mechanisms. First, Work Engagement functions as an internal psychological pathway, through which employee voice strengthens employees' involvement and subsequently contributes to sustainability. Second, Leader Support functions as an external contextual condition that strengthens the relationship by enabling employees' green ideas to be recognized and potentially translated into organizational practices.

Therefore, the overall findings suggest that building Organizational Sustainability in MSMEs requires more than simply encouraging employees to speak about environmental issues. Employee voice needs to exist within an organizational environment that strengthens employees' psychological engagement and provides adequate leadership support. In this sense, the results reinforce the importance of the human resource dimension within the green transformation of MSMEs assisted by Bank Indonesia Purwokerto. Sustainability is not achieved solely through technical interventions but also through the interaction between employees who are willing to contribute ideas, employees who are psychologically engaged in their work, and leaders who are willing to support and facilitate those contributions.

CONCLUSION

This study examined the effect of Green Voice Behavior on Organizational Sustainability among employees of MSMEs assisted by Bank Indonesia Purwokerto, with Work Engagement as a mediating variable and Leader Support as a moderating variable. The findings demonstrate that Green Voice Behavior does not have a significant positive direct effect on Organizational Sustainability. However, Green Voice Behavior has a significant positive effect on Work Engagement, while Work Engagement positively affects Organizational Sustainability. Furthermore, Work Engagement significantly mediates the relationship between Green Voice Behavior and Organizational Sustainability. Leader Support also significantly moderates the relationship between Green Voice Behavior and Organizational Sustainability, indicating that stronger Leader Support enhances the contribution of employees' environmentally oriented voice to organizational sustainability. These findings confirm that four of the five hypotheses proposed in this study were supported.

The findings provide a more comprehensive understanding of the mechanisms through which Green Voice Behavior contributes to Organizational Sustainability. Although employees' environmentally oriented ideas and suggestions do not directly translate into improved sustainability outcomes, Green Voice Behavior remains important because its contribution operates through psychological and organizational mechanisms. Work Engagement serves as an internal psychological mechanism through which employees' active participation strengthens their involvement in work and subsequently contributes to sustainability. Meanwhile, Leader Support serves as an important contextual condition that strengthens the relationship between Green Voice Behavior and Organizational Sustainability. Thus, the findings indicate that encouraging employees

to express environmentally oriented ideas alone may not be sufficient to achieve sustainability. Organizations also need to foster employees' engagement and ensure that leaders actively support, respond to, and facilitate the implementation of employees' green ideas.

From a theoretical perspective, this study contributes to the literature on Green Voice Behavior and Organizational Sustainability by demonstrating that the relationship between these constructs is not necessarily direct. The findings extend the understanding of Green Voice Behavior by positioning it not merely as an outcome of supportive organizational conditions but also as an employee behavior that may contribute to sustainability through Work Engagement and under conditions of adequate Leader Support. The significant mediating role of Work Engagement supports the relevance of Kahn's Engagement Theory in explaining how employees' active participation can strengthen their psychological involvement in work and subsequently contribute to broader organizational outcomes. In addition, the moderating role of Leader Support is consistent with Social Exchange Theory, emphasizing the importance of positive employee and leader relationships in facilitating constructive employee contributions to the organization.

From a practical perspective, MSMEs assisted by Bank Indonesia Purwokerto should provide employees with opportunities to express ideas, concerns, and suggestions related to environmentally responsible workplace practices. However, establishing channels for employee voice should be accompanied by concrete organizational responses. MSME leaders should actively listen to employee suggestions, provide constructive feedback, evaluate the feasibility of proposed ideas, and facilitate their implementation when appropriate. Such support is particularly important because employees may identify sustainability issues at the operational level but may lack the authority and resources required to independently transform their ideas into organizational practices. Therefore, leaders play an essential role in bridging the gap between employees' green ideas and their practical implementation.

MSMEs should also recognize Work Engagement as an important element in building Organizational Sustainability. Employees who perceive that their ideas and contributions are meaningful may develop stronger involvement in their work and become more willing to contribute to organizational objectives. Consequently, sustainability initiatives should not be approached exclusively as technical or operational programs. They should also incorporate human resource practices that encourage employee participation, strengthen meaningful involvement in organizational activities, and create a supportive working environment. By integrating employee voice, Work Engagement, and Leader Support, MSMEs can develop a more participatory approach to sustainability in which employees and leaders jointly contribute to environmentally responsible and sustainable business practices.

This study is subject to several limitations that should be considered when interpreting its findings. The study involved 40 employees of MSMEs assisted by Bank Indonesia Purwokerto and employed purposive sampling; therefore, the findings should be generalized to other MSME populations with caution. The relatively limited sample size may also restrict the broader applicability of the results. Future studies are encouraged to involve larger and more diverse samples across different MSME sectors and geographical areas to improve the generalizability of the findings. In addition, future research may examine other psychological and organizational mechanisms that could explain how Green Voice Behavior contributes to Organizational Sustainability, such as psychological safety, perceived organizational support, green organizational culture, or environmental commitment. Further research may also explore additional contextual variables that influence whether employees' green ideas are successfully transformed into sustainable organizational practices.

Overall, this study concludes that the contribution of Green Voice Behavior to Organizational Sustainability among MSMEs assisted by Bank Indonesia Purwokerto is better understood as a conditional and indirect process rather than a simple direct relationship. Employees' willingness to express environmentally oriented ideas represents an important starting point, but sustainability

outcomes depend on whether such participation strengthens employees' engagement and whether organizational leaders provide sufficient support to facilitate their contributions. Accordingly, developing a sustainable MSME ecosystem requires an integrated approach in which employees are encouraged to voice green ideas, remain actively engaged in their work, and receive adequate support from leaders to transform those ideas into meaningful organizational practices.

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