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Sustainable Leadership, Green Human Capital, and Green Behaviour Shape Employee Sustainable Performance

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ABSTRACT

Objectives: This study examines how sustainable leadership and green human capital relate to employee sustainable performance, directly and through green behaviour, among Bank Indonesia employees.

Methodology: A quantitative cross-sectional survey was completed by 140 purposively selected employees from a population of 215. The measurement and structural models were assessed with partial least squares structural equation modelling.

Findings: Sustainable leadership had a positive direct effect on employee sustainable performance ($\beta = 0.605$; $t = 11.138$), whereas the direct effect of green human capital was not supported ($\beta = 0.050$; $t = 0.552$). Green behaviour positively affected performance, and both antecedents positively affected green behaviour. Green behaviour did not mediate the leadership–performance relationship ($p = 0.133$) but mediated the green human capital–performance relationship ($p = 0.019$). The model explained 69.2% of performance and 65.1% of green behaviour. Reliability was strong, although recomputed average variance extracted values for sustainable leadership and green behaviour were below 0.50.

Conclusion: Leadership is associated directly with sustainable performance, while green human capital appears to operate primarily through enacted green behaviour. The measurement limitations warrant cautious interpretation and revalidation.

Keywords: Sustainable Leadership; Green Human Capital; Green Behaviour; Employee Sustainable Performance; Partial Least Squares.

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INTRODUCTION

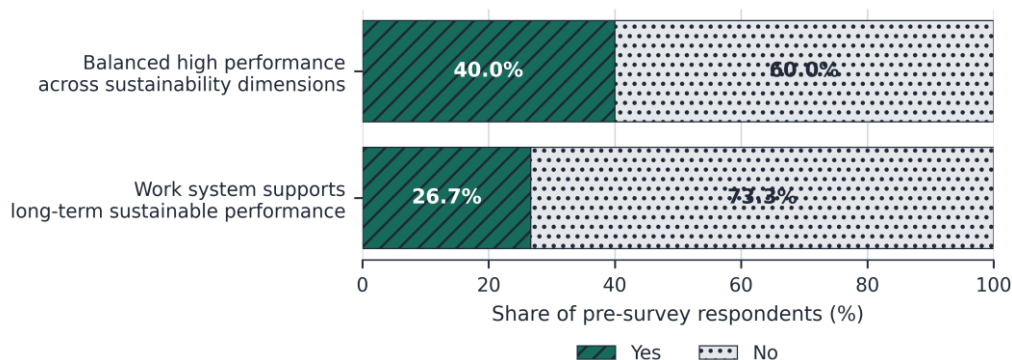
Organisations increasingly need employees to deliver consistent results without separating performance from its economic, social, and environmental consequences. In this context, employee sustainable performance refers to an employee's capacity to maintain effective work over time while remaining adaptive, efficient, and responsible towards the organisation's broader sustainability commitments. The construct therefore extends conventional short-term output by emphasising continuity and the conditions that make performance maintainable. This perspective is relevant because sustainable performance depends not only on what employees achieve, but also on whether work practices conserve resources, sustain quality, and remain responsive to organisational change

(Fu et al., 2023; Junianti et al., 2023). Recent work reinforces this framing by showing that sustainability outcomes at the organisational level are ultimately produced by the day-to-day conduct and capability of individual employees (Afzal & Lim, 2022; Lin et al., 2024; Shahbaz & Malik, 2026).

The issue is particularly salient at Bank Indonesia. As Indonesia's central bank, Bank Indonesia performs monetary, payment-system, and financial-system functions while also confronting institutional demands for transformation and sustainability. Its objectives require coordinated policy implementation and capable human resources across organisational units. The thesis records Bank Indonesia's efforts to integrate environmental, social, and governance considerations into policy and operations. Such commitments, however, are implemented through daily employee decisions and behaviour. Leadership, environmental knowledge, and individual conduct consequently become material organisational concerns rather than peripheral environmental topics, since sustainability commitments are translated into results only when leaders, capabilities, and employee behaviour are aligned (Altassan, 2025; Liu et al., 2023; Nazir et al., 2025).

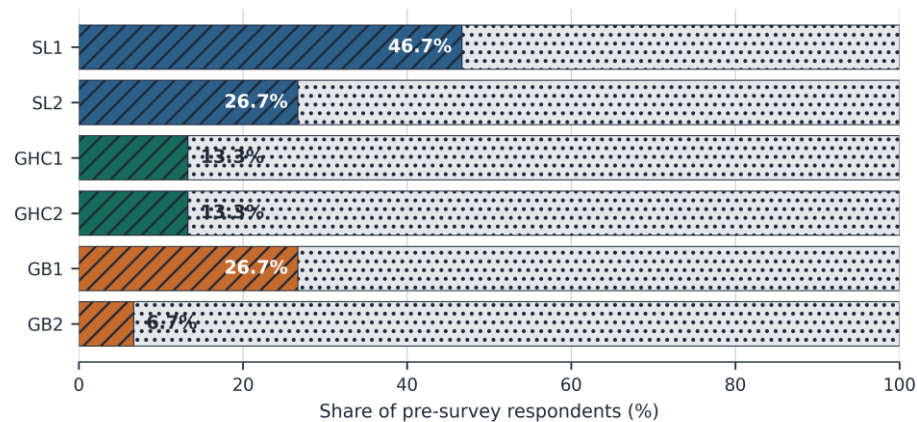
The initial evidence in the thesis indicates that sustainability was not yet fully embedded in daily work. In a 15-person pre-survey, only 40.0% of respondents believed that they consistently maintained high performance across economic, social, and environmental dimensions, while 26.7% believed that the work system fully supported sustainable performance over the long term. The second pre-survey reinforced this concern: only 13.3% reported that the organisation had fully equipped employees with sustainability and green-practice knowledge and skills, and only 6.7% reported actively initiating and encouraging colleagues to adopt environmentally friendly practices. Figures 1 and 2 show that the research problem lies at the intersection of organisational direction, employee capability, and enacted behaviour.

Figure 1. Sustainability-related employee performance in the pre-survey (n = 15)



Source: Processed from the thesis pre-survey data (2026).

Figure 2. Affirmative responses on proposed antecedents in the pre-survey (n = 15)



Source: Processed from the thesis pre-survey data (2026).

Three constructs provide a focused explanation of that intersection. First, sustainable leadership balances organisational achievement with long-term economic, social, and environmental responsibility. Such leaders communicate a sustainability-oriented direction, model expected conduct, and create conditions for employees to participate in responsible practices (Boeske, 2023; Joon et al., 2025; Liao, 2022; Nazir et al., 2025). Second, green human capital represents employees' environmental knowledge, skills, awareness, attitudes, and related capabilities. These qualities allow employees to understand sustainability expectations and apply them in their work (Jamil et al., 2023; Miah et al., 2024; Rosyafah et al., 2025; Taleb & Pheniqi, 2023). Third, green behaviour captures concrete workplace actions, including conserving resources, managing waste, proposing environmental improvements, participating in environmental programmes, and influencing colleagues (Cahyadi et al., 2023; Tang et al., 2023; Yuan et al., 2024).

Prior studies support relationships among these constructs, but the evidence assembled in the thesis remains fragmented. Leadership has been related to employee green conduct and sustainable outcomes (Khanam et al., 2025; Zacher et al., 2024), while green human resource capabilities have been linked to employee green behaviour and sustainability performance (Bhatti et al., 2022; Munawar et al., 2022; Pontillo et al., 2025; Sowmiya et al., 2024). Green behaviour has also been associated with sustainable performance in banking and other organisational settings (Sivalingam & Arulrajah, 2022). Nevertheless, earlier studies often examined only part of the model, focused on organisational rather than individual performance, or were conducted mainly in manufacturing and private-sector settings. Evidence integrating sustainable leadership and green human capital as antecedents, employee sustainable performance as an individual outcome, and green behaviour as the proposed mechanism remains limited in the financial-sector context.

This study addresses that gap by testing a single model among 140 Bank Indonesia employees. It examines five direct relationships and two indirect relationships: the effects of sustainable leadership, green human capital, and green behaviour on employee sustainable performance; the effects of sustainable leadership and green human capital on green behaviour; and the mediating role of green behaviour in the two antecedent-performance relationships. The study thereby evaluates whether organisational leadership and employee environmental capability reach sustainable performance directly, through enacted green behaviour, or through different pathways.

LITERATURE REVIEW

Theoretical Foundations

The model is grounded in the resource-based view and social exchange theory. The resource-based view explains organisational advantage through resources that are valuable, strategically relevant, and difficult to reproduce. Human knowledge and organisational capabilities are especially important because they enable organisations to respond to changing demands and convert formal strategy into implementation (Kero & Bogale, 2023; Lubis, 2022). Applied to environmental management, this logic has been used to explain how green human capital and green intellectual assets translate into firm-level performance (Al-Ghazali et al., 2022; Shahbaz & Malik, 2026). From this perspective, green human capital is a strategic resource: environmental knowledge, skills, and attitudes equip employees to perform work in ways that support sustainability. Sustainable leadership is also an intangible organisational capability because it aligns decisions, culture, and employee development with long-term priorities.

Social exchange theory complements this resource explanation by focusing on reciprocity between employees and the organisation. Employees interpret organisational treatment, support, and trust and respond through attitudes and behaviour that benefit the organisation (Ahmad et al., 2023). Sustainable leadership communicates organisational commitment to employees and sustainability, while the development of green human capital represents investment in employee capability. Employees may reciprocate through green behaviour and sustained work performance. The two theories therefore distinguish what the organisation possesses from how employees respond: the resource-based view explains leadership and human capital as strategic capabilities, while social exchange theory explains why those capabilities may be translated into employee conduct and performance.

Employee Sustainable Performance

Employee sustainable performance describes the ability to maintain work performance over time while preserving quality, adaptability, and responsibility towards social and environmental considerations. It combines contextual performance, such as cooperation, initiative, compliance, support for organisational goals, and self-development, with adaptive performance in changing, uncertain, or demanding situations. The concept is broader than immediate task completion because it considers whether employees can sustain contribution without disregarding the conditions that support future performance (Afzal & Lim, 2022; Fu et al., 2023).

Sustainable performance is shaped by both individual and organisational conditions. Employees need relevant competence and motivation, but their capacity to sustain performance also depends on leadership direction, organisational culture, and support for responsible work. Digital capability and employee learning have been associated with employee sustainable performance (Fu et al., 2023), while sustainability-oriented human-resource practices and green work-life conditions have been connected to corporate sustainability and employee retention (Lin et al., 2024). Corporate social responsibility and green human-resource practices have likewise been linked to organisational sustainable performance, with employee-level environmental citizenship behaviour serving as the connecting mechanism (Malik et al., 2021; Zhao et al., 2021). In the present model, sustainable leadership supplies direction, green human capital supplies capability, and green behaviour represents the employee-level actions through which environmental responsibility becomes visible in work.

Sustainable leadership

Sustainable leadership is a long-term approach that integrates economic, social, and environmental considerations into organisational direction and decision-making. It differs from leadership centred only on immediate targets because it considers the continuing effects of

organisational choices on employees, stakeholders, and the environment (Jayashree et al., 2022; Liao, 2022). In the thesis, the construct covers collaborative practices, instructional leadership, culture, distributed leadership, and professional growth. These dimensions include active participation, mission clarity, constructive coordination, role modelling, inspirational communication, empowerment, shared decisions, teamwork, reflection, training, and adaptation to technology.

This combination can support employee sustainable performance through several routes. Clear direction and constructive feedback reduce ambiguity, empowerment expands employees' capacity to act, and professional growth helps employees adapt. Sustainable leadership can therefore create an environment in which productivity is pursued together with employee well-being and responsibility. Empirical work has linked responsible leadership to employee sustainable performance through an ethical climate (Khanam et al., 2025), and sustainable leadership has been connected to employee performance through organisational culture, commitment, and engagement (Joon et al., 2025). Sustainable leadership has also been shown to operate alongside green human-resource practices in shaping organisational commitment (Hatipoğlu & Akduman, 2025), and green leadership combined with environmental knowledge sharing has been related to sustainable performance in manufacturing (Khan et al., 2023). Broader evidence also positions sustainable leadership as an important antecedent of sustainable organisational performance (Nazir et al., 2025).

Leadership can also shape green behaviour. Leaders make sustainability salient by communicating values, modelling expected actions, supporting participation, and embedding environmental concerns in work routines. Zacher et al. (2024) integrate leader green behaviour with multilevel antecedents and consequences, while Altassan (2025) relates sustainable leadership and green human-resource management to environmentally responsible organisational cultures. Evidence on green transformational leadership similarly shows that leadership and green human-resource practices contribute to employees' green behaviour (Cahyadi et al., 2023). These arguments support the first and fourth direct hypotheses:

H1: Sustainable leadership has a positive and significant effect on employee sustainable performance.

H4: Sustainable leadership has a positive and significant effect on green behaviour.

Green Human Capital

Green human capital comprises employee knowledge, skills, understanding, attitudes, characteristics, environmental awareness, motivation, capacity for green innovation, and teamwork related to sustainability. It is developed through recruitment, learning, training, experience, and organisational practices that make environmental competence relevant to work (Jamil et al., 2023; Munawar et al., 2022). Unlike a formal environmental policy, green human capital resides in people and determines whether sustainability requirements can be understood and applied.

The resource-based view suggests that this capability can improve performance because knowledgeable and skilled employees are better able to conserve resources, recognise environmental consequences, and propose efficient solutions. Research in the thesis connects green human capital with sustainable performance in the information-technology sector (Sowmiya et al., 2024). Green human capital is also presented as a foundation of organisational resilience under climate-related pressures (Rosyafah et al., 2025) and as an intellectual-capital pathway to firm performance (Shahbaz & Malik, 2026). Further evidence positions green human capital as the mechanism carrying green human-resource practices into environmental performance (Ali et al., 2025), and green innovation has been shown to convey similar practices into sustainable performance (Kanan et al., 2023).

Green human capital should also encourage green behaviour because knowledge and skill make responsible action feasible, while environmental attitudes and motivation make it more likely. Research has shown that environmental knowledge management and green self-efficacy help explain how green human-resource practices affect employee green behaviour (Miah et al., 2024). Accordingly:

H2: Green human capital has a positive and significant effect on employee sustainable performance.

H5: Green human capital has a positive and significant effect on green behaviour.

Green Behaviour

Green behaviour refers to employee actions intended to reduce environmental harm and support sustainability in the workplace. The thesis represents the construct through green learning, influencing others, organisational voice, task-related green behaviour, and voluntary extra-role green behaviour. Observable actions include saving energy and resources, recycling and reusing materials, suggesting environmental improvements, participating in environmental programmes, and encouraging colleagues to act responsibly. This breadth matters because green behaviour includes both required work practices and voluntary contributions beyond formal job descriptions (Tang et al., 2023).

Green behaviour can improve employee sustainable performance by integrating resource efficiency and environmental responsibility into the way work is completed. It can also strengthen participation and responsibility, supporting sustained contribution rather than one-off compliance. Evidence from selected commercial banks found that employee green behaviour mediated the relationship between organisational environmental support and sustainable performance (Sivalingam & Arulrajah, 2022). Other work shows that perceived organisational support and innovative environmental behaviour are relevant to environmental performance (Bhatti et al., 2022), and that voluntary workplace green behaviour is influenced by green human-resource management (Yuan et al., 2024). Thus:

H3: Green behaviour has a positive and significant effect on employee sustainable performance.

Mediation and Theoretical Framework

The mediation argument combines capability and reciprocity. Sustainable leadership may foster green behaviour through example, policy support, and the social meaning attached to sustainability. Green behaviour may then carry part of that influence into employee sustainable performance. Related research has identified pro-environmental behaviour as a mechanism connecting responsible leadership and green practices with sustainable business performance (Liu et al., 2023), while responsible leadership, green human-resource management, and corporate social responsibility have been connected to employee green behaviour and task performance (He et al., 2021). Comparable mediation findings report green behaviour and green innovation transmitting organisational green practices into sustainability outcomes (Bieszk-Stolorz & Dmytrów, 2023; Kanan et al., 2023). This leads to the sixth hypothesis:

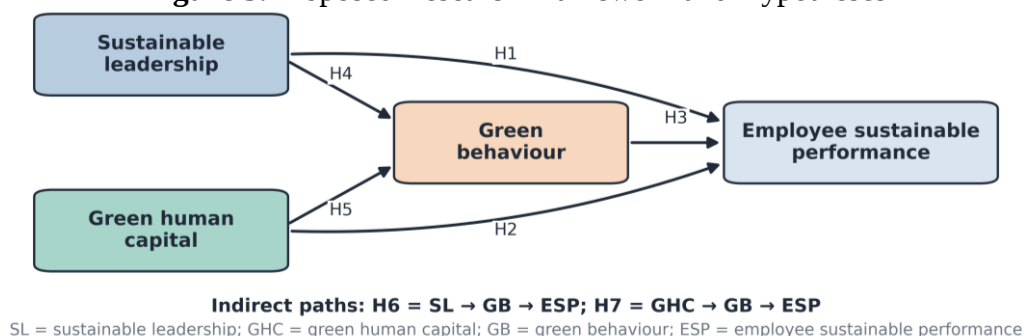
H6: Green behaviour mediates the effect of sustainable leadership on employee sustainable performance.

Green human capital may follow a more capability-centred route. Environmental knowledge and skills first enable concrete green actions; repeated actions then support efficient, responsible, and sustainable performance. Studies in the thesis associate green human capital with employee green behaviour (Pontillo et al., 2025) and sustainable performance (Sowmiya et al., 2024). The final hypothesis is therefore:

H7: Green behaviour mediates the effect of green human capital on employee sustainable performance.

The theoretical framework positions sustainable leadership and green human capital as exogenous constructs, green behaviour as the mediator, and employee sustainable performance as the final endogenous construct. Each antecedent has a direct path to both endogenous constructs; green behaviour has a direct path to employee sustainable performance; and the model contains the two indirect paths specified in H6 and H7 (Figure 3).

Figure 3. Proposed Research Framework and Hypotheses



Source: Developed from the research hypotheses in the thesis (2026).

METHOD

The study used a quantitative, explanatory, cross-sectional field design. It tested hypothesised relationships among four latent constructs at one point in time rather than observing changes longitudinally. The research setting was Bank Indonesia, with the population defined as 215 employees in supporting organisational work units relevant to the financial-sector context. The thesis states that the sample size was calculated using the Slovin formula with a 5% error tolerance; applying that formula gives 139.84, rounded to 140 respondents.

Respondents were selected using non-probability purposive sampling. Eligibility required at least five years of service, involvement in organisational activities, and an understanding of sustainability practices in the workplace. The final dataset contained 140 responses readable and valid for analysis. It included 88 women and 52 men; 51 respondents were older than 41 years, 106 were married, and 103 held bachelor's degrees. These counts are reported only to describe the analysed sample and were not used as moderators or control variables in the structural model.

The primary instrument was a structured questionnaire measured on a five-point Likert scale ranging from strongly disagree to strongly agree. Sustainable leadership was represented by 16 indicators; green human capital by eight indicators; green behaviour by ten indicators; and employee sustainable performance by nine indicators. The operational definitions and indicators were drawn from the theories and studies contained in the thesis. Supporting interviews, documentation, and literature review provided organisational context, while the questionnaire supplied the quantitative data analysed in the model.

Partial least squares structural equation modelling was performed with SmartPLS. The measurement-model assessment examined outer loadings, Cronbach's alpha, composite reliability, average variance extracted (AVE), the Fornell–Larcker criterion, and heterotrait–monotrait (HTMT) ratios. The thesis used minimum criteria of 0.50 for outer loadings, 0.60 for Cronbach's alpha, 0.70 for composite reliability, 0.50 for AVE, and 0.90 for HTMT, consistent with established PLS-SEM reporting guidance (Hair et al., 2021, 2022). The specified measurement model was retained for auditability; indicators were not deleted post hoc in this article. The structural assessment examined R^2 , adjusted R^2 , f^2 , Q^2 , and the standardised root mean square residual. Direct and indirect effects

were assessed through bootstrapping, using two-tailed $t > 1.96$ and $p < 0.05$ as the decision criteria. Direct-effect p values in Table 4 are normal-approximation values derived from the SmartPLS t -statistics; indirect p values are those reported in the thesis. Because the data are cross-sectional and self-reported, the paths are interpreted as modelled associations rather than proof of temporal causation.

RESULTS AND DISCUSSION

Measurement Model Assessment

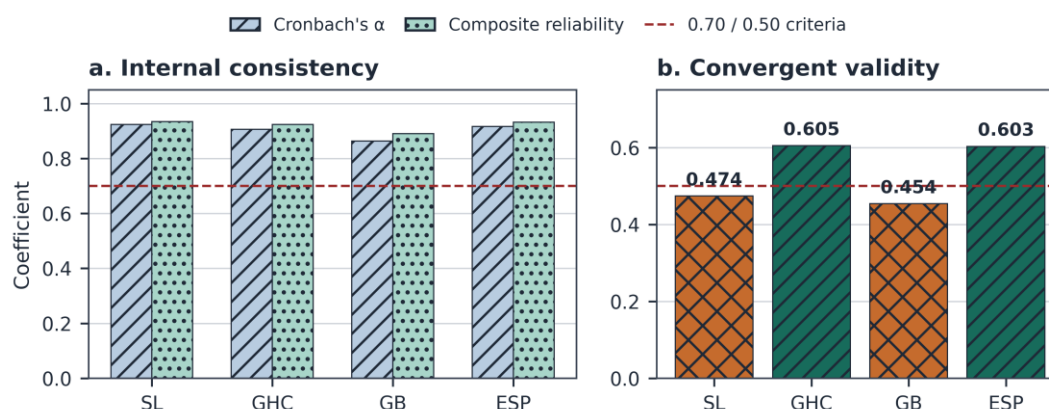
The raw SmartPLS output embedded in the thesis contained 43 indicators. Sustainable leadership loadings ranged from 0.453 to 0.791, green human capital from 0.722 to 0.820, green behaviour from 0.558 to 0.783, and employee sustainable performance from 0.716 to 0.839. One sustainable-leadership indicator (0.453) fell below the thesis's 0.50 criterion. Cronbach's alpha ranged from 0.864 to 0.924 and composite reliability from 0.891 to 0.934, indicating strong internal consistency. AVE recomputed from the reported outer loadings was 0.474 for sustainable leadership, 0.605 for green human capital, 0.454 for green behaviour, and 0.603 for employee sustainable performance. Convergent validity was therefore established only for green human capital and employee sustainable performance. Table 1 and Figure 4 make the reliability–validity distinction explicit.

Table 1. Measurement-model Reliability and Convergent Validity

Construct	Indicators	Loading range	Cronbach's α	Composite reliability	AVE
Sustainable leadership	16	0.453–0.791	0.924	0.934	0.474
Green human capital	8	0.722–0.820	0.906	0.924	0.605
Green behaviour	10	0.558–0.783	0.864	0.891	0.454
Employee sustainable performance	9	0.716–0.839	0.917	0.932	0.603

Source: Reliability values and outer loadings reported in the thesis; AVE recomputed from the reported outer loadings.

Figure 4. Internal Consistency and Convergent-validity Profile



Source: Reliability values and outer loadings reported in the thesis; AVE recomputed from the reported outer loadings (2026).

The six HTMT ratios ranged from 0.682 to 0.883 and were below the 0.90 criterion. The Fornell–Larcker matrix, however, raised two concerns: the sustainable-leadership correlation with employee sustainable performance (0.801) exceeded the square root of its AVE (0.689), and the green-human-capital correlation with green behaviour (0.794) exceeded the green-behaviour diagonal (0.674). Thus, HTMT was acceptable, but the AVE and Fornell–Larcker results do not support an unqualified claim of measurement validity. Structural estimates are reported transparently and should be interpreted cautiously pending scale revalidation.

Structural explanatory and predictive results

The model explained 69.2% of the variance in employee sustainable performance ($R^2 = 0.692$; adjusted $R^2 = 0.685$) and 65.1% of the variance in green behaviour ($R^2 = 0.651$; adjusted $R^2 = 0.646$). Positive Q^2 values of 0.361 and 0.368, respectively, indicated predictive relevance under the criterion used in the thesis. The saturated and estimated models both had an SRMR of 0.085. This value is slightly above the stricter 0.08 benchmark and below 0.10, so it is treated as marginal rather than as unequivocal evidence of fit.

Table 2. Structural Explanatory and Predictive Assessment

Endogenous construct	R^2	Adjusted R^2	SSO	SSE	Q^2
Employee sustainable performance	0.692	0.685	505.000	324.102	0.361
Green behaviour	0.651	0.646	505.000	323.254	0.368

Source: Structural-model results in the Meliyah thesis.

The effect-size values clarify the relative contribution of each direct path. Green human capital to green behaviour had the largest f^2 value (0.711), followed by sustainable leadership to employee sustainable performance (0.628). The remaining values were 0.074 for green behaviour to employee sustainable performance, 0.062 for sustainable leadership to green behaviour, and 0.003 for green human capital to employee sustainable performance. The negligible final value is consistent with the unsupported H2 path.

Table 3. Effect Sizes for Structural Paths

Structural path	f^2
Green human capital → Green behaviour	0.711
Sustainable leadership → Employee sustainable performance	0.628
Green behaviour → Employee sustainable performance	0.074
Sustainable leadership → Green behaviour	0.062
Green human capital → Employee sustainable performance	0.003

Source: Structural-model results in the Meliyah thesis.

Direct and indirect effects

The direct paths were reconstructed from the SmartPLS model and bootstrap figures embedded in the thesis. Sustainable leadership was positively related to employee sustainable performance ($\beta = 0.605$; $t = 11.138$), supporting H1. Green human capital had a small, statistically unsupported direct relationship with performance ($\beta = 0.050$; $t = 0.552$), so H2 was not supported. Green behaviour was positively related to performance ($\beta = 0.257$; $t = 2.761$), supporting H3. Sustainable leadership ($\beta =$

0.196; $t = 1.977$) and green human capital ($\beta = 0.664$; $t = 8.016$) were positively related to green behaviour, supporting H4 and H5.

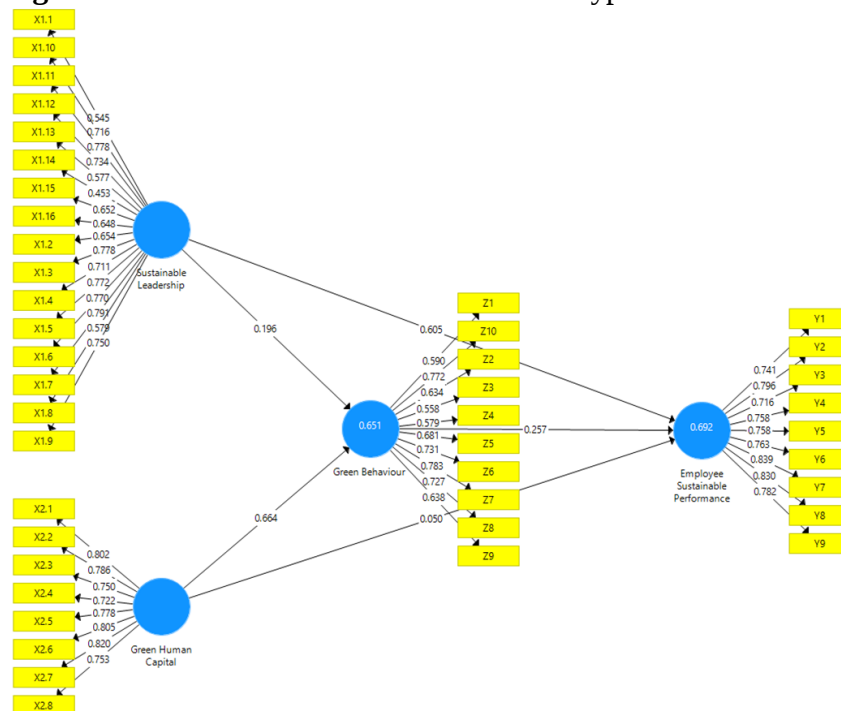
The mediation tests produced different outcomes. The indirect effect of sustainable leadership on employee sustainable performance through green behaviour was not significant ($\beta = 0.050$; $t = 1.505$; $p = 0.133$), so H6 was not supported. The corresponding indirect effect of green human capital was significant ($\beta = 0.170$; $t = 2.355$; $p = 0.019$), supporting H7. Table 4 consolidates the seven tests, and Figure 5 displays the structural model.

Table 4. Direct and Indirect Hypothesis Tests

H	Relationship	β	t	p	Decision
H1	Sustainable leadership → Employee sustainable performance	0.605	11.138	<0.001	Supported
H2	Green human capital → Employee sustainable performance	0.050	0.552	0.581	Not supported
H3	Green behaviour → Employee sustainable performance	0.257	2.761	0.006	Supported
H4	Sustainable leadership → Green behaviour	0.196	1.977	0.048	Supported
H5	Green human capital → Green behaviour	0.664	8.016	<0.001	Supported
H6	Sustainable leadership → Green behaviour → Employee sustainable performance	0.050	1.505	0.133	Not supported
H7	Green human capital → Green behaviour → Employee sustainable performance	0.170	2.355	0.019	Supported

Source: Direct effects reconstructed from the embedded SmartPLS outputs; indirect effects reported in the thesis. Direct p values use the two-tailed normal approximation.

Figure 5. Reconciled Structural Model and Hypothesis Decisions



Source: Reconstructed from the SmartPLS model and bootstrap outputs embedded in the thesis (2026).

Discussion of direct effects

The positive and significant relationship between sustainable leadership and employee sustainable performance supports the view that leadership is an organisational capability with direct relevance to sustained employee contribution. The result is consistent with Khanam et al. (2025), who connect responsible leadership and employee sustainable performance, and with Joon et al. (2025), who show that sustainable leadership can enhance employee performance through

organisational conditions. It also agrees with Boeske (2023) account of sustainability-oriented leadership as a balance between organisational performance and environmental and social responsibility. In Bank Indonesia, the result means that a leader's long-term direction, example, coordination, empowerment, and support for development are associated with employees' ability to maintain effective and adaptive performance. The comparatively large f^2 value of 0.628 reinforces the prominence of this direct path within the tested model.

Contrary to H2, green human capital did not have a statistically discernible direct relationship with employee sustainable performance ($\beta = 0.050$; $t = 0.552$). Its f^2 value of 0.003 likewise indicates negligible incremental explanatory contribution to performance after the other predictors are considered. This finding differs from Sowmiya et al. (2024), who report a relationship between green human capital and sustainable performance in the Indian information-technology sector. In the present model, however, capability was not irrelevant: its strong relationship with green behaviour and significant indirect effect indicate that environmental knowledge and skill become performance-relevant primarily when enacted. The result therefore refines the resource-based explanation by separating possession of capability from its behavioural application.

The positive effect of green behaviour on employee sustainable performance supports the proposition that sustainability becomes consequential when it is enacted. Resource conservation, reuse, environmental suggestions, programme participation, and peer influence integrate responsibility into the work process. The result is aligned with Sivalingam & Arulrajah (2022), who found a role for employee green behaviour in sustainable performance in commercial banking, and with Tang et al. (2023), who describe employee green behaviour as a multidimensional set of in-role and voluntary actions. The finding also complements Bhatti et al. (2022), whose study links organisational support and innovative environmental behaviour to environmental performance. At Bank Indonesia, green behaviour is therefore not merely an attitudinal outcome; it is directly associated with employee sustainable performance.

Sustainable leadership positively affected green behaviour ($\beta = 0.196$; $t = 1.977$), supporting the social-exchange and role-modelling arguments. Employees receive signals about organisational priorities from leaders' decisions, communication, and example. When leaders embed sustainability in routines and invite participation, employees have both legitimacy and encouragement to act responsibly. This result agrees with Zacher et al. (2024) and Altassan (2025), and is consistent with Cahyadi et al. (2023). The modest f^2 value of 0.062 helps explain why leadership did not generate a statistically reliable indirect effect through green behaviour.

Green human capital had a positive relationship with green behaviour ($\beta = 0.664$; $t = 8.016$) and the largest reported f^2 value in the model (0.711). Knowledge allows employees to recognise environmental impacts, skills enable alternative practices, and motivation supports voluntary participation. The result is consistent with Miah et al. (2024), Pontillo et al. (2025), and Taleb & Pheniqi (2023). Among the tested antecedents of green behaviour, employee environmental capability therefore appears especially important.

Discussion of mediation effects

Green behaviour did not mediate the sustainable leadership-employee sustainable performance relationship. This result is important because both component direct paths - sustainable leadership to green behaviour and green behaviour to employee sustainable performance - were significant, but their combined indirect effect was not statistically reliable ($p = 0.133$). The thesis interprets this outcome as an indication that sustainable leadership may not yet be translated consistently into employee actions that carry its influence to performance. The strong direct leadership-performance result and weaker leadership-behaviour result suggest that leadership may reach performance more directly or through mechanisms not included in this model, such as

organisational culture, commitment, engagement, learning, or ethical climate. This finding differs from evidence that pro-environmental behaviour can transmit responsible leadership effects to sustainable business performance (Liu et al., 2023), demonstrating that mediation is context- and mechanism-dependent rather than automatic.

In contrast, green behaviour significantly mediated the relationship between green human capital and employee sustainable performance. The two-stage logic is coherent with the resource-based view: green human capital provides environmental knowledge and skill, and green behaviour applies those resources in work. The strong green human capital–green behaviour path ($t = 8.016$) and the positive green behaviour–performance path ($t = 2.761$) culminated in a significant indirect effect ($\beta = 0.170$; $t = 2.355$; $p = 0.019$). This finding is compatible with Pontillo et al. (2025) and Sowmiya et al. (2024). Because the direct H2 path was not supported while the indirect path was, the evidence points to a primarily behavioural route; it does not establish temporal causality.

The contrasting mediation results refine the model's practical meaning. Bank Indonesia cannot assume that leadership messages alone will be transmitted through green behaviour. Leadership remains directly important, but behaviour appears to be a reliable pathway when employees possess the necessary green knowledge and capability. Organisational action should therefore combine visible and consistent leadership with capability development and opportunities to practise green behaviour. The indicators in the thesis point to relevant areas: environmental knowledge and skills, awareness and motivation, teamwork, resource conservation, reuse, environmental suggestions, programme participation, and peer influence. These implications remain within the tested constructs and do not imply that the cross-sectional model proves causality.

CONCLUSION

This study tested an integrated PLS-SEM model of sustainable leadership, green human capital, green behaviour, and employee sustainable performance using data from 140 Bank Indonesia employees. Sustainable leadership and green behaviour were positively related to employee sustainable performance, whereas the direct green human capital–performance path was not supported. Sustainable leadership and green human capital were both positively related to green behaviour. The model explained 69.2% of employee sustainable performance and 65.1% of green behaviour.

The mediation results distinguish two pathways. Green behaviour did not mediate the sustainable leadership–performance relationship, but it did mediate the green human capital–performance relationship. Leadership was therefore associated with sustainable performance principally through the direct path estimated in this model, whereas environmentally oriented employee capability operated through enacted green behaviour. This distinction is the study's central contribution: capability alone was insufficient to explain performance once behaviour and leadership were included, but capability translated into performance through practice.

For Bank Indonesia, the findings imply that sustainable performance should be supported through both leadership practice and employee capability development. Leadership needs to be consistent, participative, and translated into work routines, while green knowledge and skills need opportunities for application through resource conservation, environmental initiatives, and peer influence. The study is limited by one organisational setting, purposive sampling, a cross-sectional self-report design, and two exogenous constructs. In addition, AVE was below 0.50 for sustainable leadership and green behaviour, and the Fornell–Larcker assessment identified two construct-overlap concerns. Future work should revalidate or refine the affected measures with item-level data, use probability or multi-site samples where feasible, apply longitudinal designs, and test additional mechanisms such as engagement, organisational culture, perceived support, and ethical climate.

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