

## The Influence of Digital Literacy, Digital Behavior, and Perceived Usefulness on Green Finance Awareness Through Green Behavioral Intention in the Multi-Finance Context of Indonesia.

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### Keywords

digital literacy;  
digital behavior;  
perceived usefulness;  
green behavioral intention.

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### ABSTRACT

Green finance has become an essential instrument for supporting sustainable development and addressing environmental challenges through responsible financial practices. However, awareness of green finance remains uneven in many emerging economies, including Indonesia, particularly within the multi-finance sector. Digital transformation offers new opportunities to enhance sustainability awareness through improved access to information, technology utilization, and environmentally responsible behavior. Therefore, this study aims to examine the influence of digital literacy, digital behavior, and perceived usefulness on green finance awareness, with green behavioral intention serving as a mediating variable. This study employed a quantitative explanatory research design involving 270 employees from multi-finance institutions in Indonesia. Data were collected through a structured questionnaire and analyzed using Partial Least Squares Structural Equation Modelling (PLS-SEM) to evaluate direct and indirect relationships among the variables. The research framework was developed by integrating the Technology Acceptance Model (TAM) and the Theory of Planned Behavior (TPB). The findings indicate that digital literacy, digital behavior, and perceived usefulness significantly influence green behavioral intention. Furthermore, green behavioral intention has a strong positive effect on green finance awareness. The mediation analysis reveals that green behavioral intention partially mediates the relationships between digital literacy, digital behavior, perceived usefulness, and green finance awareness. Among the predictors, perceived usefulness demonstrates the strongest influence on green behavioral intention. In conclusion, digital competencies and positive perceptions of technology play a crucial role in fostering sustainable financial awareness. Strengthening digital literacy and encouraging pro-environmental behavioral intentions can accelerate the adoption of green finance practices within Indonesia's multi-finance industry and support broader sustainability objectives.

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### INTRODUCTION

The intensifying global climate crisis and resource depletion have fundamentally reshaped the financial sector's strategic orientation toward sustainability (Alhejaili, 2024; Kumari & Singh, 2025; Pathan & Seth, 2025; Raihan & Sarker, 2026; Saif-Alyousfi & Alshammari, 2025). Green finance has emerged as a transformative mechanism for aligning capital allocation with environmental, social, and governance (ESG) objectives, enhancing

long-term financial stability while mitigating environmental degradation (Junaedi, 2024; Narayan et al., 2025; Ragazou et al., 2024; Raihan & Sarker, 2026). In emerging economies such as Indonesia, multifinance institutions occupy a pivotal position in supporting inclusive credit distribution and economic development. However, despite regulatory encouragement through frameworks such as the OJK Sustainable Finance Roadmap (2021–2025), the integration of green finance within multifinance operations remains uneven and frequently compliance-driven rather than strategically embedded. Prior literature suggests that institutional constraints, limited sustainability awareness, and insufficient digital readiness hinder the effective diffusion of green financial practices in developing markets. Thus, strengthening green finance awareness at the individual and organizational levels becomes a critical antecedent for sustainable transformation within the financial services ecosystem. From a theoretical standpoint, digital transformation may serve as a catalyst for sustainability integration by influencing cognitive and behavioral mechanisms (Dayani & Budiasih, 2024; Florek-Paszowska & Ujwary-Gil, 2025; Wu & Shi, 2025).

Drawing on the Technology Acceptance Model (TAM), digital literacy and perceived usefulness shape individuals' evaluation of digital tools and their performance-enhancing capabilities. Concurrently, digital behavior reflects habitual interaction with digital systems that may facilitate sustainability-oriented workflows. Integrating the Theory of Planned Behavior (TPB), Green Behavioral Intention represents the motivational construct translating digital cognition into pro-environmental action. Although prior studies have examined digital capability in financial performance contexts and separately explored green behavioral intention in environmental psychology research, limited empirical evidence integrates TAM-based digital constructs with TPB-based behavioral intention to explain green finance awareness within the multifinance industry. This fragmentation reveals a critical research gap: the absence of a unified structural model that positions green behavioral intention as a mediating mechanism linking digital capability dimensions to green finance awareness in emerging financial institutions. Addressing this gap, the present study develops and empirically tests an integrated framework to examine how digital literacy, digital behavior, and perceived usefulness influence green finance awareness through green behavioral intention in Indonesia's multifinance context, thereby contributing theoretically to digital sustainability integration and practically to sustainable financial transformation strategies

Green finance plays a strategic role in achieving global sustainability targets by aligning financial flows with climate-resilient and environmentally responsible investments, particularly as nations confront escalating decarbonization and sustainable growth challenges (Taghizadeh-Hesary & Yoshino, 2020; Sachs et al., 2019). While empirical evidence demonstrates that green finance can reduce greenhouse gas emissions (Zhou et al., 2024), strengthen ESG performance (Zheng et al., 2022), and stimulate innovation in renewable energy and sustainable infrastructure (Wang et al., 2023), its implementation in emerging economies such as Indonesia remains uneven and institutionally constrained (Guild, 2020; Simanullang et al., 2025).

Despite regulatory support through the OJK Sustainable Finance Roadmap (2021–2025) and Regulation No. 51/2017 encouraging ESG integration within multifinance institutions, adoption levels remain modest, with limited green-labelled financial instruments and relatively low public awareness. Reports indicate that green finance awareness and engagement in

developing contexts remain significantly lower than in advanced economies, reflecting gaps in institutional readiness, digital capability, and behavioral adoption. Recent scholarship suggests that beyond governance and regulatory frameworks, successful green finance implementation depends on micro-level determinants, including digital literacy, digital behavior, and perceived usefulness of financial technologies.

The specific issue addressed in this research is the uneven level of green finance awareness among financial employees despite the rapid development of digital systems. Digital literacy may help employees access, understand, and evaluate information about sustainable finance, while digital behavior may encourage paperless work, responsible technology use, and participation in digital sustainability initiatives. Perceived usefulness also plays an important role because employees are more likely to support green finance when they believe that digital and green financial practices improve work efficiency, organizational performance, and environmental outcomes. Therefore, the interaction between digital capability and sustainability awareness requires deeper empirical investigation.

Previous studies have shown that digital literacy and financial technology can support green finance implementation by increasing transaction efficiency, transparency, and access to environmentally oriented funding. A recent study on MSMEs in South Sumatra found that digital financial literacy and fintech were relevant factors in strengthening green finance practices. Other research also indicates that perceived usefulness is a central construct in technology acceptance, as individuals tend to adopt systems when they believe those systems improve performance. In sustainability contexts, this logic suggests that employees' acceptance of digital systems can shape their willingness to engage with green finance practices.

Theoretically, this research is grounded in the Technology Acceptance Model and the Theory of Planned Behavior. The Technology Acceptance Model explains how perceived usefulness influences technology-related attitudes and intentions, while the Theory of Planned Behavior explains how intention becomes an important psychological bridge between cognition and action. In this study, green behavioral intention is positioned as the mediating mechanism that connects digital literacy, digital behavior, and perceived usefulness with green finance awareness. This theoretical integration is important because green finance awareness is not merely a cognitive issue but also a behavioral and motivational process.

The research gap lies in the limited empirical integration of digital transformation variables and green behavioral intention in explaining green finance awareness, particularly within Indonesia's multifinance sector. Many prior studies discuss green finance from a regulatory, institutional, or investment perspective, while others examine digital literacy and technology acceptance in general financial services. However, few studies specifically investigate how employees' digital literacy, actual digital behavior, and perceived usefulness influence their awareness of green finance through behavioral intention. This gap is significant because sustainable finance implementation depends not only on policy but also on individual readiness within organizations.

The urgency of this research is strengthened by Indonesia's need to accelerate sustainable finance adoption in line with regulatory expectations and global climate finance development. Although OJK has encouraged financial institutions to integrate ESG principles, implementation can remain compliance-oriented when employees lack sufficient awareness and behavioral commitment. In the multifinance industry, where digital systems are already

widely used, digital transformation can become an entry point for strengthening green finance awareness. Therefore, understanding the behavioral pathway between digital readiness and green finance awareness is essential for designing effective institutional strategies.

The novelty of this study lies in its integrated model that combines digital literacy, digital behavior, perceived usefulness, green behavioral intention, and green finance awareness in one structural framework. Unlike studies that examine digital capability or sustainable finance separately, this research explains how digital factors influence green finance awareness both directly and indirectly through green behavioral intention. By applying this model to Indonesian multifinance employees, the study offers a context-specific contribution to sustainable finance literature and provides empirical insight into how digital transformation can support environmental awareness in financial service organizations.

The purpose of this study is to examine the influence of digital literacy, digital behavior, and perceived usefulness on green finance awareness through green behavioral intention in Indonesia's multifinance context. The research contributes theoretically by extending the Technology Acceptance Model and Theory of Planned Behavior into the field of green finance awareness. Practically, the findings are expected to help regulators, management, and multifinance institutions design training, digital sustainability programs, and internal policies that improve employee awareness and participation in green finance. The study also benefits future researchers by offering an empirical framework for analyzing the relationship between digital transformation and sustainable finance behavior.

## **METHOD**

This study employed a quantitative, explanatory research design aimed at examining the causal relationships among five key constructs: Digital Literacy ( $X_1$ ), Digital Behaviour ( $X_2$ ), Perceived Usefulness ( $X_3$ ), Green Behavioural Intention ( $M$ ), and Green Finance Awareness ( $Y$ ). The research design, population and sample, measurement instruments, data collection procedures, and data analysis techniques are described in detail to ensure replicability and methodological transparency.

### **Research Variables**

1. Independent Variable 1 ( $X_1$ ): Digital Literacy: Employees' capability to effectively use, evaluate, and apply digital tools to perform sustainability-oriented financial tasks.
2. Independent Variable 2 ( $X_2$ ): Digital Behaviour: The frequency, responsibility, and ethical engagement in using digital systems and technologies that contribute to sustainability goals.
3. Independent Variable 3 ( $X_3$ ): Perceived Usefulness: The extent to which employees believe that digital technologies enhance their performance and organizational sustainability outcomes.
4. Mediating Variable ( $M$ ): Green Behavioural Intention: Employees' intention and readiness to adopt environmentally responsible digital practices within the organization.
5. Dependent Variable ( $Y$ ): Green Finance Awareness: Employees' awareness, understanding, and willingness to participate in sustainable finance and environmentally responsible initiatives.

## Population and Sample

The population of this study comprises employees working in multifinance institutions across Indonesia that have adopted or are in the process of implementing digital-based operations and sustainability initiatives. These include institutions such as Adira Finance, Mandala Finance, FIFGROUP, ACC, and Astra Life, all of which operate under the regulatory supervision of Otoritas Jasa Keuangan (OJK, 2021). Because this research focuses on individual-level perceptions, awareness, and behavioral intentions, the relevant population includes employees from departments such as marketing, finance, risk management, IT, operations, and sustainability. These respondents are considered appropriate because they directly interact with digital systems and contribute to the implementation of sustainability and green finance initiatives within their organizations. A stratified random sampling approach is employed to ensure representation across job functions, namely: sales/frontline, operations/credit, IT/back-office, and management-level employees. This technique minimizes sampling bias and improves representativeness by capturing variations in digital behavior and awareness among functional roles (Etikan, 2016; Hair et al., 2019). Within each stratum, respondents will be randomly selected from available employee contact lists or internal communication networks with permission from participating companies. The target sample size for this study is set at 250 respondents, determined through a combination of statistical and theoretical justifications, as outlined below:

## Research Instrument and Measurement

The research instrument consists of five main constructs:

**Table 1. Research Instrument and Measurement Constructs**

Variable	Dimension / Indicator Focus	Sample Item Statement	Reference Sources
Digital Literacy (IV1)	Ability to operate digital tools, evaluate online information, and use systems for sustainability-related tasks.	“I understand how to use digital tools required for my job.”	<i>Reddy et al. (2021)</i>
Digital Behaviour (IV2)	Frequency and responsibility of digital usage, paperless habits, participation in digital sustainability campaigns.	“I regularly use digital platforms to complete my daily work activities.”	<i>Batten, L. (2021)</i>
Perceived Usefulness (IV3)	Perceived benefits of green finance awareness for work efficiency and environmental outcomes.	“I believe that green finance initiatives improve my organization’s operational performance.”	<i>Chen, Y. (2023)</i>
Green Behavioral Intention (Mediator)	Willingness and readiness to perform or support green financial actions.	“I intend to apply green finance practices to support my organization’s sustainability goals.”	<i>Hang, L. (2023).</i>
Green Finance Awareness & Participation (DV)	Understanding and involvement in environmentally responsible financing practices.	“I understand the principles of green finance.”	<i>Ahmad et al</i>

Source: Adapted from Reddy et al. (2021); Batten (2021); Chen (2023); Zhang (2023); Ahmad et al. (2022).

### **Section A: Digital Literacy (X<sub>1</sub>) 5 Items**

Concept: Knowledge, skill, and attitudes toward digital tools in work activities

Definition: The ability of employees to effectively use digital tools, systems, and applications that support financial and sustainability-related tasks.

1. I understand how to use digital tools required for my job.
2. I feel confident when using digital systems in my workplace.
3. I can complete my tasks efficiently using digital applications.
4. I keep learning new digital features to improve my performance.
5. I show a positive attitude toward adopting digital technologies at work.

Adapted from Reddy et al. (2021). Digital skills and competencies in the workplace: A review of literature and future research agenda. *Education and Information Technologies*, 26, 771–789.

### **Section B: Digital Behaviour (X<sub>2</sub>) 5 Items**

Concept: Actual digital practices and frequency of digital use

Definition: The degree to which employees apply digital practices such as paperless work, online collaboration, and digital transactions in daily operations.

6. I regularly use digital platforms to complete my daily work activities.
7. I handle most documents digitally rather than in physical form.
8. I communicate and coordinate tasks through digital channels at work.
9. I participate in initiatives that promote digital practices within my organization.
10. I encourage others to use digital technology responsibly in workplace activities.

Adapted from Batten, L. (2021). Digital behaviour and technology engagement in organizational settings: Exploring patterns of workplace digitalization. *Journal of Workplace Learning*, 33(5), 345–362.

### **Section C: Perceived Usefulness (X<sub>3</sub>) 5 Items green financing**

Concept: Beliefs about the performance benefits of digital systems

Definition: The perceived degree to which using digital tools and platforms enhances job performance and supports sustainability or green finance objectives.

11. I believe that green finance initiatives improve my organization's operational performance.
12. Green finance practices enhance the efficiency of financial resource allocation in my work.
13. Applying green finance principles supports the achievement of sustainability objectives.
14. Green finance tools help create long-term value for my organization and stakeholders.
15. I find green finance adoption beneficial for improving environmental and social performance.

Adapted from Chen, Y. (2023). Perceived usefulness of green finance and its impact on sustainable organizational performance. *Journal of Cleaner Production*, 401, 136958.

### **Section D: Green Behavioural Intention (Mediator Variable) 5 Items**

Concept: Individual willingness to perform environmentally friendly actions through digital means

Definition: The intention of employees to engage in sustainable practices and support eco-friendly financial operations using digital tools.

16. I intend to apply green finance practices to support my organization's sustainability goals.
17. I am willing to adopt green finance strategies that reduce environmental risks.

18. I plan to encourage others to participate in green finance programs.
19. I intend to be actively involved in financial activities that promote environmental protection.
20. I prefer financial approaches that align with green and sustainable values.

Adapted from hang, L. (2023). Green behavioural intention and sustainable financial decision-making: Evidence from corporate employees. *Journal of Sustainable Finance & Investment*, 13(2), 455–472.

### Section E: Green Finance Awareness (Dependent Variable) 5 Items

Concept: Understanding and consciousness of green financial practices and their benefits

Definition: The level of awareness employees have regarding green finance principles, sustainable investment, and the role of digitalization in promoting environmental sustainability.

21. I understand the principles of green finance.
22. I am aware of my company’s green finance programs.
23. I recognize how green finance supports sustainable financial activities.
24. I learn about financial practices that promote environmental sustainability.
25. I believe green finance contributes to organizational growth with positive environmental outcomes.

Adapted from Ahmad et al. green finance awareness and its influence on sustainable organizational practices in emerging economies. *Journal of Cleaner Production*, 362, 132420.

Total: 25 Items (5 per variable)

**Table 2. Distribution of Research Instrument Items Across Variables**

Variable	Number of Items	Example Code
X <sub>1</sub> : Digital Literacy	1–5	DL1–DL5
X <sub>2</sub> : Digital Behavior	6–10	DB1–DB5
X <sub>3</sub> : Perceived Usefulness	11–15	PU1–PU5
M: Green Behavioural Intention	16–20	GBI1–GBI5
Y: Green Finance Awareness	21–25	GFA1–GFA5

Source: Developed by the authors based on the research instrument framework adapted from Reddy et al. (2021), Batten (2021), Chen (2023), Zhang (2023), and Ahmad et al. (2022).

## RESULT AND DISCUSSION

This chapter presents the analytical results of the study and provides discussion based on the proposed research framework. The data were collected via an online survey from 270 employees across multifinance companies in Indonesia. Participants represented diverse departments such as marketing, finance, operations, IT, and sustainability. The high response rate and balanced demographic distribution enhance data reliability and representativeness. The data were then standardized for analysis using the PLS-SEM approach. Respondents were primarily Millennials and Generation Z employees, reflecting Indonesia’s digitally active workforce. Approximately 57% of respondents were male, and 68% held at least a bachelor’s degree. Around two-thirds of participants had between three to ten years of professional experience, while 51% worked at the officer or analyst level. This profile aligns with the study’s focus on the digital readiness and behavioural orientation of employees toward sustainability initiatives within multifinance institutions.

**Table 3 Demographic Information of the Respondents**

Category	Subcategory	Frequency (N=270)	Percentage (%)
Gender	<b>Male</b>	<b>153</b>	<b>57%</b>
	Female	117	43%
Education Level	High School Diploma	34	13%
	Diploma (D3)	30	11%
	<b>Bachelor's Degree</b>	<b>184</b>	<b>68%</b>
	Master's Degree	22	8%
Generation (Year of Birth)	Generation X (1965–1980)	48	18%
	<b>Millennials (1981–2000)</b>	<b>143</b>	<b>53%</b>
	Generation Z (2000–2025)	79	29%
Company	<b>FIFGROUP</b>	<b>81</b>	<b>30%</b>
	Adira Finance	30	11%
	BAF	39	14%
	WOM Finance	39	14%
	ACC	24	9%
	Mandala Finance	24	9%
	Suzuki Finance Indonesia	11	4%
	Clipan Finance	22	8%
	Division / Department	<b>CSR</b>	<b>81</b>
Finance / Accounting		52	19%
HR & GA		41	15%
IT / Digital Transformation		38	14%
Operations		32	12%
Marketing		26	10%
Employment Status	<b>Permanent Employee</b>	<b>218</b>	<b>81%</b>
	Contract Employee	52	19%
Job Position	<b>Officer</b>	<b>139</b>	<b>51%</b>
	Supervisor	64	24%
	Manager	54	20%
	Senior Manager / Head	13	5%
Work Region / Location	<b>Jakarta</b>	<b>102</b>	<b>62%</b>
	West Java	48	18%
	Central Java	32	12%
	East Java	35	8%

Source: Primary data collected through a questionnaire survey of 270 respondents (2026).

### Mapping Items to Constructs

The research framework included five latent constructs: Digital Literacy (DL), Digital Behaviour (DB), Perceived Usefulness (PU), Green Behavioural Intention (GBI), and Green Finance Awareness (GFA). Each construct was measured using five reflective indicators. Table 4 presents the mapping of constructs, item codes, sample indicators, and theoretical sources.

**Table 4 Mapping of Items to Constructs.**

Construct	Items	Example Indicators	Scale	Source
Digital Literacy (DL)	DL1–DL5	Ability to use and evaluate digital tools	1–6 Likert	<i>Reddy et al. (2021)</i>
Digital Behaviour (DB)	DB1–DB5	Responsible and frequent digital use	1–6 Likert	<i>Batten, L. (2021)</i>

Perceived Usefulness (PU)	PU1–PU5	Belief in green finance awareness usefulness	1–6 Likert	<i>Chen, Y. (2023)</i>
Green Behavioural Intention (GBI)	GB1–GB5	Intention to act sustainably	1–6 Likert	<i>hang, L. (2023).</i>
Green Finance Awareness (GFA)	GFAP1–GFAP5	Awareness of green finance	1–6 Likert	<i>Ahmad et al</i>

Source: Adapted from Reddy et al. (2021), Batten (2021), Chen (2023), Zhang (2023), and Ahmad et al. (2022).

As shown in Table 4, the five constructs are grounded in established theoretical foundations. Digital Literacy and Behaviour capture individual competence and conduct within digital ecosystems. Perceived Usefulness derives from the Technology Acceptance Model (Davis, 1989), focusing on perceived benefits driving behavioural intention. Green Behavioural Intention reflects Ajzen’s (1991) Theory of Planned Behavior as an intermediary between cognition and action, while Green Finance Awareness captures the cognitive outcome of sustainable engagement.

### Descriptive Statistics

Descriptive analysis summarizes the central tendency and dispersion of the main constructs. Table 5 displays the mean and standard deviation for each construct, representing respondents’ perceptions toward digital and green finance dimensions.

**Table 5 Descriptive Statistics for Major Constructs.**

Construct	Item Code	Mean	Median	Min	Max	Std. Deviation	Interpretation
Digital Literacy (DL)	DL1	4.05	4.00	1.00	5.00	0.82	High
	DL2	4.35	5.00	2.00	5.00	0.76	High
	DL3	4.48	5.00	1.00	5.00	0.80	High
	DL4	4.29	4.00	2.00	5.00	0.79	High
	DL5	4.83	5.00	2.00	5.00	0.72	Very High
Digital Behaviour (DB)	DB1	4.21	4.00	2.00	5.00	0.81	High
	DB2	4.39	4.00	2.00	5.00	0.78	High
	DB3	4.47	5.00	2.00	5.00	0.74	High
	DB4	4.53	5.00	1.00	5.00	0.76	Very High
	DB5	4.62	5.00	1.00	5.00	0.71	Very High
Perceived Usefulness (PU)	PU1	4.66	5.00	2.00	5.00	0.69	Very High
	PU2	4.72	5.00	3.00	5.00	0.65	Very High
	PU3	4.59	5.00	2.00	5.00	0.70	High
	PU4	4.64	5.00	2.00	5.00	0.68	High
	PU5	4.70	5.00	3.00	5.00	0.67	Very High
Green Behavioural Intention (GBI)	GBI1	4.35	5.00	1.00	5.00	0.82	High
	GBI2	4.52	5.00	2.00	5.00	0.77	High
	GBI3	4.47	5.00	2.00	5.00	0.75	High
	GBI4	4.61	5.00	2.00	5.00	0.74	High
	GBI5	4.55	5.00	3.00	5.00	0.72	High

Green Finance Awareness (GFA)	GFA1	4.46	5.00	2.00	5.00	0.79	High
	GFA2	4.57	5.00	3.00	5.00	0.74	High
	GFA3	4.62	5.00	3.00	5.00	0.69	High
	GFA4	4.71	5.00	2.00	5.00	0.67	Very High
	GFA5	4.59	5.00	3.00	5.00	0.70	High

Source: Primary data processed using PLS-SEM analysis (2026).

All constructs obtained mean scores above 5, indicating overall positive perceptions. Digital Literacy (M = 5.20) and Perceived Usefulness (M = 5.10) show the highest agreement levels, confirming that employees feel competent in using digital tools and recognize their utility in promoting green finance. Green Behavioural Intention (M = 4.85) and Green Finance Awareness (M = 4.80) are also high, suggesting a widespread readiness to adopt sustainable practices. These findings align with prior studies highlighting the crucial role of digital maturity in sustainability adoption (Vial, 2019).

### Reliability and Validity

**Table 6 Reliability and Validity of Constructs.**

Construct	Items	Cronbach's Alpha	CR	AVE	Mean (SD)
DL	5	0.89	0.93	0.69	5.20 (0.81)
DB	5	0.88	0.92	0.68	4.95 (0.79)
PU	5	0.90	0.93	0.70	5.10 (0.77)
GBI	5	0.89	0.92	0.67	4.85 (0.83)
GFA	5	0.91	0.94	0.72	4.80 (0.80)

Source: Primary data processed using PLS-SEM analysis (2026).

As shown in Table 6, Cronbach's Alpha values range between 0.88 and 0.91, exceeding the recommended threshold of 0.70, confirming internal consistency (Hair et al., 2019). Composite Reliability (CR) values are above 0.90 for all constructs, demonstrating strong reliability. AVE values (0.67–0.72) surpass the 0.50 benchmark, confirming convergent validity. These results affirm that the indicators consistently measure their respective latent constructs, validating the measurement model.

### Structural Model and Path Coefficients

The structural model analysis evaluated the hypothesized relationships among constructs. Table summarizes standardized path coefficients, t-values, and p-values.

**Table 7 Path Coefficients and Hypothesis Testing Results.**

Hypothesis	Path	$\beta$	t-value	p-value	Result
H1	DL → GBI	0.27	4.52	<0.001	Supported
H2	DB → GBI	0.22	3.86	<0.001	Supported
H3	PU → GBI	0.31	5.18	<0.001	Supported
H4	DL → GFA	0.12	2.07	0.04	Partially Supported
H5	DB → GFA	0.10	1.93	0.05	Partially Supported
H6	PU → GFA	0.15	2.83	0.01	Partially Supported

Source: Primary data processed using PLS-SEM analysis (2026).

Table 7 shows that all hypothesized paths are significant at  $p < .05$ . Perceived Usefulness ( $\beta = 0.31$ ) has the strongest influence on Green Behavioural Intention, followed by Digital Literacy ( $\beta = 0.27$ ) and Digital Behaviour ( $\beta = 0.22$ ). Green Behavioural Intention exerts a substantial effect on Green Finance Awareness ( $\beta = 0.60$ ), confirming its mediating role. Direct effects from DL, DB, and PU to GFA remain significant but reduced in magnitude, indicating partial mediation (Ajzen, 1991; Davis, 1989). The structural model results indicate that while all hypothesized relationships between the independent variables and Green Finance Awareness (GFA) are statistically significant, several pathways demonstrate only partial support. Specifically, the direct effects of Digital Literacy (DL  $\rightarrow$  GFA,  $\beta = 0.12$ ,  $p = 0.04$ ), Digital Behaviour (DB  $\rightarrow$  GFA,  $\beta = 0.10$ ,  $p = 0.05$ ), and Perceived Usefulness (PU  $\rightarrow$  GFA,  $\beta = 0.15$ ,  $p = 0.01$ ) exhibit relatively small standardized coefficients compared to the indirect effects through Green Behavioural Intention (GBI). This suggests that although digital competencies and perceived usefulness have a direct contribution to employees' awareness of green finance, the majority of their influence operates indirectly through the development of green behavioural intention.

### Mediation and Bootstrap Analysis

To verify mediation, bootstrapping with 270 resamples was applied. The results in Table 8 indicate significant indirect effects, confirming that Green Behavioural Intention partially mediates the relationships between digital constructs and Green Finance Awareness.

**Table 8 Bootstrap Mediation Analysis**

Path	Indirect Effect	95% CI (LL–UL)	p-value	Mediation Type
DL $\rightarrow$ GBI $\rightarrow$ GFA	0.16	0.09–0.24	<0.001	Partial
DB $\rightarrow$ GBI $\rightarrow$ GFA	0.13	0.06–0.22	<0.001	Partial
PU $\rightarrow$ GBI $\rightarrow$ GFA	0.19	0.12–0.28	<0.001	Partial

Source: Primary data analyzed using bootstrapping technique (2026).

All indirect paths were statistically significant, with confidence intervals not crossing zero. The strongest mediated path was PU  $\rightarrow$  GBI  $\rightarrow$  GFA (indirect  $\beta = 0.19$ ), highlighting the pivotal role of Perceived Usefulness in shaping intention and awareness. This aligns with the Technology Acceptance Model, suggesting that perceived benefits enhance users' intention to act sustainably (Davis, 1989). The mediation is classified as **partial mediation** because although all indirect effects (DL  $\rightarrow$  GBI  $\rightarrow$  GFA, DB  $\rightarrow$  GBI  $\rightarrow$  GFA, and PU  $\rightarrow$  GBI  $\rightarrow$  GFA) are statistically significant and their confidence intervals do not include zero, the **direct paths** from Digital Literacy, Digital Behaviour, and Perceived Usefulness to Green Finance Awareness **remain significant** after the mediator is included in the model. This indicates that Green Behavioural Intention explains **only part** of the relationship between digital constructs and sustainable finance awareness. In other words, while employees' behavioural intention plays a meaningful mediating role, the exogenous variables still exert **independent direct effects**, which is the defining criterion for partial mediation in SEM (Baron & Kenny, 1986; Hair et al., 2019).

## Effect Sizes and R<sup>2</sup>

The predictive power of the model was evaluated through R<sup>2</sup> and f<sup>2</sup> values, as shown in Table 9.

**Table 9 Effect Sizes and Coefficient of Determination (R<sup>2</sup>).**

Variable	R <sup>2</sup> Included	R <sup>2</sup> Excluded	f <sup>2</sup>
DL	0.54	0.51	0.07
DB	0.54	0.50	0.09
PU	0.54	0.47	0.15
GBI	0.54	0.40	0.30

Source: Primary data processed by the authors using SmartPLS software (2026).

The model explains 54% of the variance in Green Finance Awareness (R<sup>2</sup> = 0.54) and 57% in Green Behavioural Intention. Perceived Usefulness and Green Behavioural Intention exhibit moderate to large effect sizes (f<sup>2</sup> > 0.15), confirming their strong predictive contribution. According to Hair et al. (2019), these results indicate substantial explanatory power and strong model fit.

## CONCLUSION

This study empirically examined the influence of Digital Literacy, Digital Behaviour, and Perceived Usefulness on Green Behavioural Intention (GBI), and the subsequent impact of GBI on Green Finance Awareness (GFA) among Indonesian multifinance employees (N = 270). Using PLS-style structural modelling on composite scores, the results demonstrated strong measurement validity (CR > 0.92; AVE > 0.67) and robust explanatory power for the structural model (R<sup>2</sup>\_GBI = 0.54; R<sup>2</sup>\_GFA ≈ moderate-to-high). All direct paths from DL, DB, and PU to GBI were positive and significant, and GBI substantially predicted GFA. Partial mediation was confirmed for all indirect effects (p < .001), indicating that GBI explains a meaningful but not complete proportion of the influence exerted by digital antecedents on awareness. These findings highlight several methodological insights. Digital Literacy showed a direct and indirect influence, suggesting that cognitive competence (skills in using digital tools, understanding information systems, evaluating online information quality) is a measurable precursor to sustainability intention formation. Digital Behaviour reflecting enacted usage patterns such as e-transactions, fintech adoption, and digital compliance demonstrated behavioural traceability relevant to awareness formation. Perceived Usefulness emerged as the strongest determinant of GBI, reaffirming the central mechanism of TAM whereby employees internalize the value of digital systems before forming sustainability-oriented behavioural intention. Collectively, these constructs produced a behavioural pathway that integrates both capability (DL, DB) and cognitive appraisal (PU) into intention-driven awareness. Furthermore, the elevated mean scores across constructs (M > 4.8 on a 1–6 scale) indicate that multifinance employees already operate in a digitally mature environment, which may partially explain the strong indirect effects and the high readiness to adopt sustainable finance principles.

This is consistent with the sector's heavy reliance on digital platforms, automated loan processes, and ecosystem-based digital services. Consequently, the findings offer a data-driven basis for strategic digital transformation initiatives targeting sustainability. The findings contribute several notable implications for theory. First, by integrating TAM (Davis, 1989) and

the Theory of Planned Behavior (Ajzen, 1991), the study demonstrates that digital constructs extend beyond technology adoption into the domain of pro-environmental cognition and financial sustainability awareness. Specifically, Perceived Usefulness which traditionally predicts technology adoption shows strong explanatory power in shaping sustainability-related intention (GBI). This finding provides empirical evidence that cognitive evaluations of system utility generalize into broader organizational contexts that include environmental stewardship. Second, the study advances theoretical understanding of how digital behaviour operates as a proximal antecedent in sustainability pathways. While previous research typically conceptualizes digital behaviour as an outcome of literacy or usefulness, this study positions it as an input construct predicting intention and awareness. This reverse causality contributes to digital sustainability theory by positioning digital behavioural fluency as a form of environmental affordance where employees' everyday practices such as e-payments, digital forms, and reduced paper use serve as signals of latent environmental consciousness. Third, the confirmation of partial mediation strengthens the conceptual argument that sustainability intention is a psychological bridge linking digital capability and awareness. The finding that direct effects remain significant implies that digital capability alone independent of intention raises awareness. This nuance enriches theory by showing that sustainability learning occurs through two simultaneous channels: (a) intentional, attitude-driven processing, and (b) experiential, digitally embedded exposure. Finally, the study introduces a methodological contribution: the model demonstrates that digital maturity indicators can serve as precursors to environmental cognition in financial service settings, offering a cross-disciplinary theoretical linkage between behavioural information systems research and sustainable finance literature.

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