

# What Drives Indonesian People's Intentions for Forest and Environmental Conservation Behavior in the Public Sphere?

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## Abstract

*Pro-environmental behavior in communal spaces remains a challenge in Indonesia, particularly in bridging individual concerns with actual behavior. This study examines how models influence individual intentions toward environmental behavior in the public sphere. This study uses an extended theoretical framework of the Theory of Reasoned Action (TRA) through the inclusion of environmental responsibility as a contextual dimension. This study was designed as a quantitative study with a survey method. Survey data were obtained from 80 Indonesian respondents using an 18-item closed-ended questionnaire, and analyzed using Structural Equation Modeling (SEM). The model estimates showed acceptable fit with the observed data (RMSEA = 0.049; CFI and TLI = 0.94; NNFI = 0.93). The findings indicate that attitudes toward environmental behavior in the public sphere and subjective norms do not influence individual intentions to engage in pro-environmental behavior in the public sphere. Meanwhile, environmental responsibility has an influence on intentions for pro-environmental behavior in the public sphere. Other findings indicate that intentions have a significant influence on pro-environmental behavior in the public sphere. These findings indicate that to increase pro-environmental intentions and behavior in the public sphere, it is necessary to increase environmental responsibility in society.*

**Keywords:** Attitude Toward Behaviour, Subjective Norm, Environmental Responsibility, Intention, Public sphere Behaviour

## Abstrak

Perilaku pro-lingkungan di ruang komunal masih menjadi tantangan di Indonesia, khususnya dalam menjembatani kepedulian individu dengan perilaku aktual. Penelitian ini mengkaji bagaimana model yang mempengaruhi intensi individu terhadap perilaku lingkungan di ranah publik. Penelitian ini menggunakan kerangka teori perluasan Theory of Reasoned Action (TRA) melalui penyertaan tanggung jawab lingkungan sebagai dimensi kontekstual. Penelitian ini didesain sebagai penelitian kuantitatif dengan metode survei. Data survei diperoleh dari 80 responden Indonesia dengan menggunakan kuesioner tertutup 18 item, dan dianalisis menggunakan Pemodelan Persamaan Struktural (Structural Equation Modeling/SEM). Estimasi model menunjukkan kesesuaian yang dapat diterima dengan data yang diamati (RMSEA = 0,049; CFI dan TLI = 0,94; NNFI = 0,93). Temuan menunjukkan bahwa sikap terhadap perilaku kepedulian lingkungan di ranah publik dan norma subjektif tidak berpengaruh terhadap intensi individu untuk melakukan perilaku pro lingkungan di ranah publik. Sementara itu tanggung jawab lingkungan memiliki pengaruh terhadap intensi perilaku pro lingkungan di ranah publik. Temuan lain menunjukkan bahwa intensi memiliki pengaruh signifikan terhadap perilaku pro lingkungan di ranah publik. Temuan ini menunjukkan bahwa untuk meningkatkan intensi dan perilaku pro lingkungan di ranah publik, diperlukan peningkatan akan tanggung jawab lingkungan di masyarakat.

**Kata Kunci:** Sikap Terhadap Perilaku, Norma Subjektif, Tanggung Jawab Lingkungan, Niat, Perilaku di Ruang Publik

## I. Pendahuluan

Indonesia has seen an increase in the impact of environmental disasters, such as floods and landslides, over the past few decades. The 2010–2020 period recorded a significant spike in hydrometeorological disasters, such as floods and landslides, peaking in 2019. These disasters resulted in various impacts, including increased loss of life, large-scale displacement,



and significant economic losses in various regions (BNPB, 2020; Katadata, 2021). In addition to floods and landslides, forest fires, declining air quality, and the urban waste management crisis exacerbated environmental degradation and increased the social risks faced by communities.

This situation continued until 2025, when floods and landslides again had a significant impact in Sumatra. According to data from the National Disaster Management Agency (BNPB), as of December 17, 2025, flash floods and landslides in the provinces of Aceh, North Sumatra, and West Sumatra had killed 1,059 people, left 192 missing, and left 577,600 residents displaced (BNPB, 2025; Kompas.com, 2025). This large number of victims and displaced persons demonstrates that hydrometeorological disasters in Indonesia are not solely influenced by natural factors but are also closely linked to human (anthropogenic) behavior, such as land conversion, weak environmental management, and low adherence to sustainability principles in the use of public spaces, which have direct consequences for environmental sustainability and social safety.

This fact emphasizes that environmental issues are not solely natural phenomena but are strongly influenced by individual and collective behavior patterns in everyday life, particularly in the context of the use and management of public spaces. Environmental disasters can thus be understood as a consequence of the interaction between natural changes and human social practices, particularly in the context of the unsustainable use of public spaces and environmental management. This perspective aligns with the view that positions humans not only as victims but also as key actors in the dynamics of environmental degradation and protection (Steg & Vlek, 2009).

In this context, understanding human behavior in interacting with the environment is a crucial aspect for scientific study. Existing literature suggests that environmental degradation and increasing disaster risks extend beyond structural and policy factors to encompass individual and socially embedded behavioral tendencies within routine environmental practices. (Steg & Vlek, 2009; Gifford, 2014). Therefore, the study of pro-environmental behavior has become a rapidly growing field in the social and behavioral literature.

The environmental behavior literature outlines three key explanatory pathways used to explain why individuals engage in, or refrain from, environmentally friendly actions. The first pathway emphasizes personal values and norms, as outlined in Value–Belief–Norm (VBN) theory, which links altruistic values, awareness of consequences, and moral responsibility to pro environmental behavior (Stern, 2000; Stern et al., 1999). From a rational–cognitive perspective, the second pathway conceptualizes behavior as emerging from evaluative attitudes, perceived normative pressures, and perceived control over action, consistent with the Theory of Planned Behavior (Ajzen, 1991). Meanwhile, the third pathway highlights the influence of social

and situational contexts, including social practices, infrastructure conditions, and normative cues established in public spaces, which can either strengthen or hinder pro-environmental behavior (Barr, 2007; Schultz et al., 2014).

Taken together, these perspectives suggest that environmental behavior emerges from a complex interplay of psychological, moral, and social factors. Consequently, examining human behavior in the context of disasters and environmental degradation, particularly within public spaces, is crucial for understanding the roots of environmental problems and determining more appropriate responses.

Numerous studies confirm that individual behavioral change is a crucial element in mitigating and adapting to environmental degradation. Steg, Perlaviciute, van der Werff, and Lurvink (2014) demonstrated that pro-environmental behavior significantly contributes to environmental risk reduction, particularly when supported by strong social norms and moral values. In the context of public spaces, actions such as disposing of waste properly, using public facilities responsibly, and complying with environmental regulations have been shown to have direct implications for environmental quality, public health, and social sustainability (Barr, 2007; Schultz et al., 2014).

Rather than treating behavior as a direct response to environmental concern, the Theory of Reasoned Action (TRA) conceptualizes action as the outcome of intentional processes shaped by attitudes and normative pressures (Ajzen, 1991; Ajzen, 2011). Within sustainability research, this framework has been widely applied to examine diverse pro-environmental behaviors, including transportation choices, energy use, waste-related practices, and green consumption (Bamberg & Möser, 2007; Steg & Vlek, 2009; Klöckner, 2013; Greaves et al., 2013). Collectively, these applications indicate that TRA offers a robust explanatory structure for understanding variation in both behavioral intentions and observable sustainable actions (Armitage & Conner, 2001; Bamberg & Möser, 2007).

Empirical evidence from workplace-based research indicates that pro-environmental intentions among employees are systematically shaped by the mechanisms specified in the Theory of Planned Behaviour (TPB) including energy conservation, the adoption of alternative technologies, and recycling activities (Greaves et al., 2013). Beyond confirming the relevance of TRA constructs, this line of research underscores the importance of tracing these intentions back to their underlying belief foundations, which offers clearer guidance for workplace-level interventions.

In the context of environmental issues, decisions to act are often driven not only by rational considerations or social pressure, but also by a sense of moral responsibility for the



impact of such behavior on the environment and wider society. In response to this limitation, recent extensions of the Theory of Planned Behavior have incorporated constructs such as environmental responsibility to better capture the moral dimension of pro-environmental action.

Although the Theory of Planned Behavior has been widely used to explain various forms of pro-environmental behavior, its application has more often focused on individual and contextually personal actions, such as energy consumption, transportation choices, and sustainable purchasing decisions (Bamberg & Möser, 2007; Klöckner, 2013). As a result, empirical applications of the Theory of Planned Behavior have been less attentive to pro-environmental behavior in public spaces, where actions are collective and shaped by dynamic social interactions.

This pattern is also reflected in empirical studies conducted in Indonesia, where the application of the Theory of Planned Behavior (TPB) is still more often directed at personal and individual environmental behaviors at the individual and household level, such as domestic electricity conservation (Sadiyah et al., 2019), waste sorting (Humaira & Falatehan, 2021), and household waste management (Yandri et al., 2025). Meanwhile, the dynamics of everyday behavior in dense and socially diverse public spaces have not received adequate attention. Cross-cultural studies show that the application of TRA is context-sensitive, insofar as social and cultural settings shape the content of behavioral, normative, and control beliefs, as well as the relative weight of attitudes, subjective norms, and perceived behavioral control in predicting intentions and behavior (Ajzen, 2011; Fishbein & Ajzen, 2010).

Building on this gap, the present study extends the Theory of Planned Behavior by including environmental responsibility as a contextual dimension in explaining pro-environmental intentions and actions in public spaces in Indonesia. Conventional studies on this theory have largely focused on behavior in private settings. In contrast, this study highlights moral and responsibility-based considerations, drawing on Kaiser (2006) who demonstrated that moral responsibility and anticipated moral regret play a crucial role in strengthening the theory of planned behavior's explanatory power for pro-environmental behavior. By situating environmental responsibility within the dynamics of public spaces, this study refines existing behavioral models and provides insights for developing environmental policies that are sensitive to the context.

This study examines how factors that influence intention and public sphere behaviour intention serves as an intervening variable in the relationship between attitude, subjective norms, and environmental responsibility and actions in public spaces, as framed within the Theory of Planned Behavior. To capture these relationships, a quantitative survey design is employed, enabling the examination of associations among constructs.

RQ1: Is there any influence of attitude on intention?

RQ2: Is there any influence of subjective norm to intention?

RQ3: Is there any influence of environmental responsibility to intention? RQ4: Is there any influence of intention to public sphere behaviour?

## II. Metode Penelitian

This study targeted Indonesian residents as its population and adopted convenience sampling to facilitate data collection within the research context. A total of 80 respondents were involved, deemed adequate for SEM analysis with a relatively simple model. Determining the appropriate sample size involved conducting a power analysis in G\*Power, applying an F-test for multiple linear regression. Given four predictors, an effect size of  $f^2 = 0.40$ , a significance threshold of 0.05, and power of 0.95, the calculation suggested that at least 52 respondents would be required. This effect size aligns with Cohen's (1988) recommendation, which states that an  $f^2 \geq 0.35$  indicates a strong influence in the behavioral model.

The research instrument was a closed-ended questionnaire developed based on adaptations of constructs from the TRA and environmental behavior literature. The instrument consisted of 18 items, covering attitudes (3 items), subjective norms (3 items), environmental responsibility (3 items), intentions (4 items), and behavior in public spaces (5 items). All items were measured using a four-point Likert scale to avoid the tendency for neutral responses and to increase the clarity of respondents' attitudes.

Data analysis was conducted using Structural Equation Modeling (SEM) with LISREL. This involved two stages: testing the measurement model to assess construct validity and reliability, and testing the structural model to examine relationships between variables. Model suitability was evaluated using various Goodness of Fit indices, including Chi-Square, RMSEA, CFI, IFI, NFI, and NNFI.

## III. Hasil Penelitian dan Pembahasan

This study surveyed 80 Indonesian participants with the characteristics shown in the table.

### 3.1 Hasil Penelitian

**Tabel I.** Demographic Data of Study Participants (N=80)

Characteristics	Frequency	Percentage
<b>Gender</b>	23	71.3
Male	57	28.7
Female		
<b>Age</b>	19	23.75
≤18 years old		



19-25 years old	52	65
26-32 years old	2	2.5
33-40 years old	5	6.25
≥41 years old	2	2.5
<b>Domicile</b>		
Jawa Barat	32	40
Kepulauan Riau	19	23.8
DKI Jakarta	9	11.2
Jawa Timur	5	6.3
Sumatera Barat	5	6.3
Sumatera Utara	3	3.7
Banten	2	2.5
Lampung	2	2.5
Aceh	1	1.3
DIY Jogjakarta	1	1.3
Kalimantan Timur	1	1.3
<b>Educational Level</b>		
High school or lower	6	7.5
Associate's degree	2	2.5
Bachelor's degree	59	73.8
Master's degree	13	16.2

An overview of the participants' demographic characteristics is provided in Table 1. The total number of respondents involved was 80 people, with the majority being male (57 people) (71.3%), while female respondents numbered 23 people (28.7%). In terms of age, the majority of respondents were in the 19–25 years range, namely 52 people (65%), followed by the ≤18 years age group with 19 people (23.75%). Respondents in the 26–32 years, 33–40 years, and ≥41 years age groups numbered 2 people (2.5%), 5 people (6.25%), and 2 people (2.5%), respectively. This distribution shows that the research sample is dominated by young age groups, especially those of early productive age.

In terms of domicile, respondents came from various regions in Indonesia, with the largest concentration coming from West Java, with 32 people (40%). Other regions that were well represented included the Riau Islands (23.8%), DKI Jakarta (11.2%), East Java and West Sumatra (6.3% each), as well as a number of other regions such as North Sumatra, Banten, Lampung, Aceh, Yogyakarta Special Region, and East Kalimantan with smaller proportions. This distribution indicates that although the majority of respondents reside on the island of Java, this study still included respondents from outside Java. In terms of education, the majority of respondents had a bachelor's degree (59 people) (73.8%), followed by a master's degree (13 people) (16.2%). Respondents with a high school education or equivalent numbered 6 people (7.5%), and 2 people (2.5%) had a diploma. This composition indicates that most respondents had a secondary to higher education level, which is relevant to the measurement of cognitive and attitudinal constructs within the Theory of Planned Behavior framework.

Analysis of respondents' intentions revealed that levels of willingness to engage in environmental conservation were generally moderate to high across all groups. Intentions was

measured with four items on a 4-point Likert scale, anchored from 1 (strongly disagree) to 4 (strongly agree). Following on the interpretation guidelines, scores below 2.00 were considered indicative of low intention, scores from 2.00 to just under 3.00 were classified as moderate, and scores of 3.00 or higher reflected high intention. Notably, no group fell into the low-intention category, as even the lowest mean score exceeded 2.00.

Further analysis based on demographic characteristics showed that respondents' intentions were relatively consistent across groups. Based on gender, both male and female respondents demonstrated moderate to high levels of intention, indicating that the intention to participate in environmental conservation was not significantly influenced by gender differences. By age group, all age groups demonstrated similar intentions, with respondents from adolescents to young adults, who dominated the sample, demonstrating strong intentions, while older respondents maintained high levels of intention. This suggests that age is not a limiting factor in the formation of pro-environmental intentions.

By education level, respondents with higher educational backgrounds, particularly bachelor's and master's degrees, tended to have stronger intentions to participate in environmental conservation, although respondents with secondary education still showed moderate to high intentions.

Analysis by region of origin showed that respondents from both Java and outside Java had relatively high levels of intention. Although there was variation in the average between regions, no groups with low intentions were found. This finding indicates that awareness and intention to engage in environmental conservation are relatively evenly distributed geographically.

Overall, the demographic profile of participants, dominated by young individuals with secondary to higher education, and the consistent results of the intention analysis in the moderate to high categories across all groups, indicate that environmental conservation issues have become a concern across gender, age, occupation, education level, and region. These findings indicate great potential for the development of programs and policies that encourage public participation in environmental conservation, particularly in the context of public spaces and mitigating the impacts of environmental disasters.

**Tabel II.** Validity and Reliability

Variabel	Item	Cronbach's Alpha	Standardized Loading Factor	Measurement Error	Composite Reliability	AVE
Attitude	ATT1		0.93	0.13		
	ATT		0.39	0.85	0.616	0.406



(ATT)	2	0.651				
	ATT		0.63	0.6		
	3					
Subjective Norm (SN)	SN1	0.849	0.76	0.42	0.932	0.873
	SN2		0.96	0.03		
Environmental Responsibility (ER)	ER2		0.71	0.49		
		0.446	0.35	0.88	0.749	
	ER3		0.79	0.37	9	0.60
	INT 1		0.82	0.33		
	INT	0.847				
	2					
Intention (INT)	INT		0.88	0.22	0.897	0.686
	3					
	INT 4		0.58	0.66		
	PSB 1		0.6	0.64		
	PSB		0.83	0.3		
	2					
Public Behaviour Sphere (PSB)	3		0.76	0.42	0.926	0.718
	PSB	0.902				
	PSB		0.94	0.11		
	4					
	PSB 5		0.87	0.24		

After the measurement items were declared valid, construct reliability was assessed to examine the internal consistency of the instrument in representing the latent variables under investigation. Reliability evaluation was conducted using Cronbach's alpha and composite reliability (CR). Cronbach's alpha was employed to assess the degree of consistency among indicators within a construct, with values of 0.70 or higher indicating an acceptable level of reliability (Cortina, 1993; Nunnally, 1978).

The analysis showed that the Cronbach's alpha values for the Subjective Norms (0.85), Intentions (0.85), and Behavior in Public Spaces (0.90) constructs exceeded the recommended minimum threshold, indicating good internal consistency. Meanwhile, the Attitude (0.65) and Environmental Responsibility (0.45) constructs had Cronbach's alpha values below the conventional threshold. These values are understandable given the relatively limited number of indicators and the developmental nature of the constructs within the framework of an expanded behavioral model.

To strengthen the reliability evaluation, the analysis was also conducted using composite reliability (CR), which is considered more appropriate in the context of structural equation modeling because it considers the standardized factor loading weights of each indicator (Fornell & Larcker, 1981; Hair et al., 2014). The composite reliability values obtained were 0.62 for Attitude, 0.93 for Subjective Norms, 0.75 for Environmental Responsibility, 0.90 for Intention, and 0.93 for Behavior in Public Spaces. All constructs met acceptable reliability criteria based

on CR values  $\geq 0.60$ , particularly in research focused on developing theoretical models.

Based on these test results, the measurement instruments used were deemed to have an adequate level of reliability and were suitable for further structural model analysis.

**Tabel III.** Good of Fit

No.	GOF Measures	Target Level of Fit	Estimation results	Level of Fit
1	GFI	$GFI \geq 0.90 = \text{good fit}$ , $0.80 \leq GFI \leq 0.90 = \text{marginal fit}$	0.86	Moderate fit
2	IFI	$IFI \geq 0.90 = \text{good fit}$ , $0.80 \leq IFI \leq 0.90 = \text{marginal fit}$	0.94	Good fit
3	CFI	$CFI \geq 0.90 = \text{good fit}$ , $0.80 \leq CFI \leq 0.90 = \text{marginal fit}$	0.94	Good fit
4	NFI	$NFI \geq 0.90 = \text{good fit}$ , $0.80 \leq NFI \leq 0.90 = \text{marginal fit}$	0.83	Moderate fit
5	RMSEA	Kurang dari 0.080	0.049	Good fit

First, the configural invariance test yielded a CFI of 0.94, a TLI of 0.92, and an RMSEA of 0.07. These results indicate that the factor structure used is similar between the postgraduate and undergraduate groups, thus the measurement model has an equivalent basic form across the two groups.

Second, the metric invariance evaluation demonstrated an acceptable level of model fit, as reflected by CFI and TLI values of 0.93 and an RMSEA of 0.07. This evidence suggests that factor loadings are statistically equivalent across groups, allowing the relationships between the observed indicators and the latent construct comparable.

Third, the scalar invariance test yielded a CFI of 0.93, a TLI of 0.92, and an RMSEA of 0.07. These findings indicate that the scalar parameters, encompassing factor loadings and intercepts within the structural equation model, are equivalent across groups, thus permitting valid comparisons of latent mean scores between groups.

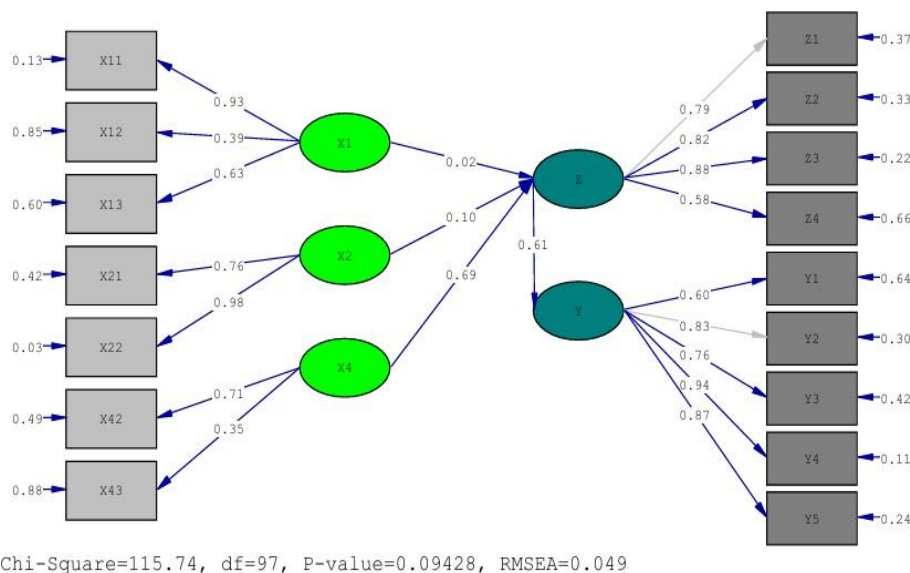
Finally, the strict invariance test yielded a CFI and TLI values of 0.92, and an RMSEA of

0.08. Taken together, these results indicate that the full set of model parameters, incorporating factor loadings, intercepts, and residual components, revealed consistency across undergraduate and graduate groups, underscoring the consistency of the model specification between the two populations.

The findings from the Goodness of Fit evaluation show that the proposed research model fits the data well. This conclusion is supported by an RMSEA value of 0.049, together with a non-significant p-value of 0.49 for the close-fit test, which places the model within the good-fit range. Consistent evidence is also observed across other fit indices, with both the CFI and IFI reaching 0.94 and the NNFI attaining a value of 0.93, further reinforcing the overall model fit.

### Hypothetical Testing

This study tests a model of factors influencing public sphere intentions and behavior using the extended planned behavior framework. Hypotheses were tested using structural equation modeling analysis. An analytical results is provided in Table 4.



Picture 1: Hypothetical testing model

Hypothesis	Relationship	$\beta$	T-Value	Decision
H1	ATT--> INT	0.02	0.13	Rejected
H2	SN --> INT	0.1	0.55	Rejected
H3	ER --> INT	0.69	2.89	Accepted
H4	INT --> PSB	0.61	4.12	Accepted

Source: research data analysis

### 3.2 Pembahasan

As reported in Table 4, the empirical findings indicate that there is no significant effect on intention. Attitudes toward forest and environmental conservation do not exert a statistically meaningful influence on individuals' intention to engage in conservation efforts ( $\beta = 0.02$ ;  $t(79)$

= 0.13;  $p > 0.05$ ).

A similar pattern is observed for subjective norms, where the analysis fails to provide sufficient statistical support for their influence on conservation-related intentions ( $\beta = 0.10$ ;  $t(79) = 0.55$ ;  $p > 0.05$ ). In contrast, environmental responsibility emerges as a significant predictor of intention, with a strong positive effect detected ( $\beta = 0.69$ ;  $t(79) = 2.89$ ;  $p < 0.05$ ), leading to the acceptance of Hypothesis 3. Furthermore, intention is found to significantly translate into actual conservation behavior, as evidenced by the positive and robust effect on forest and environmental conservation practices ( $\beta = 0.61$ ;  $t(79) = 4.21$ ;  $p < 0.01$ ).

#### IV. Simpulan dan Saran

This study explores environmental conservation intentions and behaviors within public spaces by applying an expanded perspective of the Theory of Planned Behavior. In public environmental contexts, conservation behaviors often occur in shared and weakly monitored settings, where individual actions contribute to collective outcomes. In such environments, intention function as a key psychological mechanism that connects internal considerations with observable behavior. Consistent with Ajzen's (1991) theoretical framework, the findings confirm that intention continues to function as an important antecedent of environmental behavior, even in socially shared public spaces.

The results indicate that attitudes play a limited role on individuals' intentions to engage in environmental conservation within public spaces. Although respondents tend to view environmental protection positively and regard environmentally harmful practices as undesirable, such personal evaluations do not automatically translate into deliberate intentions to engage in conservation behaviors. This suggests that favorable attitudes alone may be insufficient to motivate action when behaviors are embedded in public settings characterized by shared responsibility and limited personal control.

Importantly, this finding does not contradict previous studies highlighting attitudes as a key predictor of pro-environmental intentions in private or semi-private contexts, such as households or workplaces (Bamberg & Möser, 2007; Greaves et al., 2013). Rather, the present results suggest that the influence of attitudes is context-dependent. In public environments, where individual actions are less visible and personal outcomes are less direct, attitudes appear to have reduced explanatory power.

Similarly, subjective norms were found to have no significant effect on the formation of environmental conservation intentions in public spaces. Perceived social expectations or support from significant others seem insufficient to stimulate deliberate conservation intentions in



contexts where social monitoring is diffuse and behavioral accountability is low. This finding aligns with Armitage and Conner's (2001) meta-analysis, which identifies subjective norms as the weakest predictor of intention within the TRA framework across various behavioral domains.

The limited influence of subjective norms in this study may reflect the nature of public spaces, where conservation behaviors are often performed anonymously and without immediate social feedback. As a result, individuals may not perceive strong normative pressure to behave in environmentally responsible ways, reducing the motivational role of social expectations in shaping intention.

In contrast, environmental responsibility emerged as a significant determinant of conservation intentions in public spaces. Individuals who internalize a sense of responsibility toward environmental protection tend to show stronger intentions to engage in conservation-related behaviors, regardless of external monitoring or social pressure. This finding highlights the importance of internalized moral considerations in motivating pro-environmental behavior in public contexts.

The prominence of environmental responsibility supports previous arguments that moral and responsibility-based factors enhance the explanatory power of the Theory of Planned Behavior, particularly in collective or shared environments (Kaiser, 2006; Manstead, 2000; Steg et al., 2014). When attitudinal and normative influences are weakened, internal moral obligations appear to play a more central role in guiding behavior.

Furthermore, the findings confirm that intention remains a significant predictor of actual conservation behavior in public spaces. This result reinforces the core assumption of TPB that behavior is largely driven by deliberate intention, even in contexts where direct supervision and enforcement are limited (Ajzen, 1991). Once individuals develop strong intentions based on internal responsibility, they are more likely to translate these intentions into concrete conservation actions.

The main contribution of this study lies in extending the Theory of Planned Behavior by incorporating environmental responsibility as a key explanatory variable within public environmental contexts. The results demonstrate that conservation decisions are shaped not only by rational evaluations and perceived social expectations, but also by moral considerations grounded in personal responsibility toward the environment. By integrating this internal normative dimension, the proposed model offers a more comprehensive explanation of pro-environmental intention formation in public spaces.

These findings also suggest that environmental behavior in public spaces differs fundamentally from behavior in private settings, which have dominated much of the existing

TPB-based research. In private contexts, attitudes and subjective norms tend to exert stronger influence due to higher visibility, clearer social expectations, and more immediate personal consequences. In contrast, public environmental behaviors are often anonymous and occur within heterogeneous social environments, thereby reducing the impact of attitudinal and normative pressures and increasing the importance of internal responsibility.

Within the Indonesian context, these findings are particularly relevant given the increasing environmental challenges associated with the unsustainable management of shared natural spaces. Large-scale deforestation, extensive land conversion, and the degradation of ecological buffer zones have reduced the ability of natural systems to control water flow and protect the environment, which in turn increases the impact of extreme weather events. This condition highlights the limitations of policy approaches that rely predominantly on regulatory enforcement and structural controls, especially in public areas where rule enforcement is inconsistent and long-term supervision is challenging. In this regard, strengthening individuals' sense of environmental responsibility and moral obligation becomes crucial, as these internal values can encourage long-term pro-environmental behavior and shared responsibility for protecting public environmental resources beyond formal regulations.

This study examined environmental conservation intentions and behaviors in public spaces by extending the Theory of Planned Behavior to include environmental responsibility as an additional explanatory factor. The findings indicate that attitudes and subjective norms do not significantly influence individuals' intentions to engage in environmental conservation in public contexts. While respondents generally hold positive views toward environmental protection, these evaluations and perceived social expectations are insufficient to motivate deliberate conservation intentions in shared and weakly monitored environments.

In contrast, environmental responsibility plays a strong role in shaping behavioral intentions toward environmental conservation. Individuals who internalize a sense of moral obligation and personal responsibility toward the environment are more likely to form strong conservation intentions, which in turn significantly influence actual conservation behavior. This finding confirms that internalized moral norms are particularly important in public spaces where individual accountability is diffuse and external enforcement is limited.

Overall, the study demonstrates that expanding the Theory of Planned Behavior by incorporating environmental responsibility improves its explanatory power in the context of pro-environmental behavior in public spaces. The results highlight the need to move beyond approaches that focus solely on attitudes, social norms, and regulatory enforcement. Instead, fostering a sense of environmental responsibility and moral commitment among individuals may



provide a more effective foundation for encouraging sustainable behavior and collective environmental stewardship, particularly within the Indonesian context.

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