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Credibility of Third-Party AI-Generated Environmental Claymation and Government Brand Trust among Gen-Z

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Abstract
Environmental advocacy content is no longer produced solely by government institutions but also by artificial intelligence (AI) through independent creators such as @jaditau_claynamation (AI-Clay). As a third-party source, such content may be perceived as more objective and influence Government Brand Trust, particularly in environmental governance. This study examines how AI-based environmental content produced by third parties influences Government Brand Trust. The study integrates the Stimulus–Organism–Response (SOR) and Elaboration Likelihood Model (ELM) frameworks through a survey analysed using Partial Least Squares Structural Equation Modelling (PLS-SEM). The sample comprised 167 respondents, predominantly Generation Z, who watched three AI-Clay environmental videos. No control group was used, using self-reported perceptions after exposure. Findings indicate that AI-Clay content is positively associated with emotional engagement and perceived environmental knowledge. However, perceived environmental knowledge is associated with more critical evaluations of government performance and has a significant negative effect on Government Brand Trust ($\beta = -0.089$; $p = 0.046$). These findings suggest that credible third-party AI content can increase perceived environmental knowledge while encouraging more critical evaluations of government environmental performance. The study contributes to environmental communication research by demonstrating how AI-generated third-party content shapes public engagement and government brand evaluations.

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Introduction

Climate change represents a global threat, with extreme weather events increasingly affecting human societies through storms, droughts, floods, and heat waves. These events are intensified by human activities, including greenhouse gas emissions, deforestation, and irresponsible land use (Barua & Eslamian, 2024; Lim, 2022). Rising global temperatures contribute to sea-level rise, desertification, and biodiversity loss, thereby destabilizing both ecosystems and human communities (Lim, 2022). The El Niño phenomenon, which is associated with climate variability, has also become more frequent and more intense, generating severe disruptions such as heavy rainfall, drought, and agricultural losses (dos Reis et al., 2021).

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Indonesia faces substantial challenges as a disaster-prone country, particularly in relation to floods, forest fires, and climate-related events. These problems are exacerbated by deforestation, the effects of El Niño, and urbanization, with regions such as Aceh and Kalimantan among the most affected areas. Forest fires, particularly in Sumatra and Kalimantan, are driven by deforestation and the drainage of peatlands for agriculture and oil-palm plantations. According to disaster data from BNPB, during a four-month period in 2026, 806 disasters were recorded. Floods constituted the largest category, with 381 events, followed by extreme weather with 250 events and forest and land fires with 82 events. The impact was massive, with 2,350,305 people affected or displaced.(Pusdatinkom BNPB, 2026)

Government is a key actor in disaster management, climate crisis response, and environmental problem solving. Although government initiatives such as peatland restoration have been introduced, weak law enforcement and corruption continue to hinder effective mitigation (Hair Joseph Franklin et al., 2022) . Public perceptions of these initiatives vary and calls for stronger community participation and greater transparency have increased. Declining trust in government is frequently associated with negative perceptions of government effectiveness in addressing critical issues such as corruption, the economy, human rights, environmental degradation, and disaster management. Slow or inadequate responses to crises, such as the COVID-19 pandemic, have further damaged public perceptions of government effectiveness. Suboptimal responses may reduce public trust, particularly when accompanied by negative emotions such as dissatisfaction and distrust (Alon‐Barkat, 2020). Government branding can increase public trust; however, when government performance is perceived as poor, branding alone is insufficient to overcome negative perceptions. Previous studies show that branding has limits in shaping public perceptions, especially when the issue is highly relevant to citizens' personal lives (Baharuddin et al., 2022)

Media play a central role in shaping public opinion, particularly regarding environmental issues such as climate change. Public opinion in the mass media and social media has a significant influence on people's political behaviour. This public opinion can shape political attitudes, influence voting decisions, and engage in political participation(Khoirunnisa et al., 2025). The role of the mass media is not only to be a link between the government and the public but also has the power to shape the policy agenda and influence the public's response to those policies(Ardani et al., 2025). Media representations influence how people understand and respond to environmental problems through both traditional news media and social media platforms (Archontaki et al., 2024). With the development of artificial intelligence, social media now offers a new mode of content production. Artificial intelligence (AI) has transformed the way content is produced, including video, animation, and storytelling. AI enables content to be visually appealing, easily viral, and capable of communicating complex issues in innovative ways (Torres Sáez de Ibarra et al., 2025). Studies show that content labeled as "AI-generated" is often perceived as less trustworthy by the public, even when its accuracy is not questioned (Toff & Simon, 2025), (R. Wang et al., 2025)

One content creator using AI is the Instagram account @jaditau_claynamation. The content is labeled as AI-generated on the Instagram platform. In its profile, the account describes itself as a Reels creator that shares interesting facts and humorous clay animation

every day. The account uses clay-style animation, resembling plasticine or clay-based characters, supported by artificial intelligence technology to generate characters, motion, and narration either automatically or semi-automatically for digital animated video content. As of April 23, 2026, the account had approximately 14,600 followers and 32 posts. The account has also produced videos on environmental issues. Three videos are particularly relevant: "Pohon Hutan Asli vs Pohon Sawit" (Native Forest Trees vs Oil-Palm Trees), uploaded on December 2, 2025, which had reached approximately 2.5 million views, 138,000 likes, 1,413 comments, more than 20,900 reposts, and more than 17,500 message-based shares; an Instagram Reels video captioned "Penyebab Bencana di Sumatera" (Causes of Disasters in Sumatra), also uploaded on December 2, 2025, which had approximately 19,700 views, 946 likes, 626 comments, 80 reposts, and 74 message-based shares; and a third video titled "Taman Nasional Tesso Nilo" (Tesso Nilo National Park), which had approximately 62,500 views, 4,761 likes, 45 comments, 582 reposts, and 357 message-based shares. Claymation content is content with a style in the form of clay which makes people interested in watching it because at that time it is content with a new style. Many comments on the Instagram content @jaditau_claynamation gave praise and asked what application was used to make it.

Although research on environmental communication and trust in government has grown substantially, several limitations remain in the existing literature. First, existing research integrating AI-based content into environmental communication remains relatively limited. A review of the existing literature indicates that most studies have examined either the use of AI in content generation and communication more broadly or environmental communication without explicitly focusing on AI-generated content. Only a limited number of studies have specifically examined the integration of AI-based content within environmental communication contexts, suggesting an emerging research area that warrants further investigation. Second, most studies tend to focus on trust without simultaneously considering perceived government ineffectiveness as an important dimension of public evaluation. Third, little research has examined how critical third-party digital content influences public perceptions of government performance. This research primarily contributes to the understanding of: AI content credibility, environmental advocacy by third parties (third-party environmental advocacy), environmental knowledge (environmental knowledge), or trust in the government (government trust).

Methodology

This study employed a quantitative approach using a post-exposure survey with an experimental stimulus to examine the effects of AI-clay videos on government brand trust, environmental attitudes, and environmental behavioral intention. A quantitative approach was selected because the study aimed to examine relationships among the variables within a structural model using Partial Least Squares Structural Equation Modeling (PLS-SEM). The theoretical framework integrates the Elaboration Likelihood Model (ELM) and Stimulus-Organism-Response (S-O-R) theory to explain how exposure to third-party AI-generated environmental content may influence audience perceptions and evaluations of government performance.

The Elaboration Likelihood Model (ELM), introduced by Petty and Cacioppo (Petty & Cacioppo, 1986)., explains persuasion and attitude change through two processing routes: the central and peripheral routes. The central route occurs when individuals are motivated and able to process persuasive information deeply, resulting in attitudes that tend

to be more durable and predictive of behavior (Luttrell & McRobert, 2025); (Siev et al., 2022) In contrast, the peripheral route relies on surface-level cues, such as source attractiveness and visual design, particularly when audiences have limited motivation or ability to process information extensively (Sharma et al., 2025). In the context of AI-clay environmental content, these two routes provide a basis for understanding how audiences evaluate the credibility of third-party AI-generated messages and subsequently develop cognitive and emotional responses.

The Stimulus-Organism-Response (S-O-R) theory, introduced by Mehrabian and Russell (1974), complements ELM by explaining how external stimuli influence individuals' internal psychological states and subsequently generate responses. The stimulus represents external environmental cues, while the organism refers to internal emotional and cognitive states, including perceptions, knowledge, and trust. The response represents the resulting behavioral or evaluative outcome (S. Wang et al., 2026). In this study, third-party AI-generated environmental Claymation functions as the stimulus, while emotional engagement and environmental knowledge represent organismic responses that may influence perceived government effectiveness and Government Brand Trust.

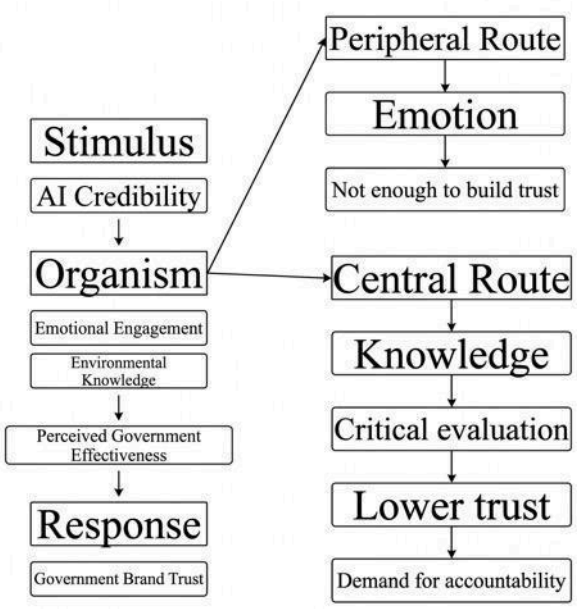


Figure 1. Stimulus-Organism-Response and ELM Theory Theoretical Framework (Source : Developed by the authors)

Based on the integration of ELM and S-O-R theory, the study proposes the following hypotheses:

H1: Third-party AI credibility affects audience emotional engagement.
H2: Third-party AI credibility affects audience environmental knowledge.
H3: Emotional engagement affects perceived government effectiveness.
H4: Environmental knowledge affects perceived government effectiveness.
H5: Emotional engagement affects Government Brand Trust.
H6: Environmental knowledge affects Government Brand Trust.

The study involved 167 respondents, who were gathered directly in one room across three different sessions. The study involved 167 respondents who were recruited using a non-probability convenience sampling approach. The sample size of 167 represents the total number of eligible respondents who completed the data collection process and provided valid responses across three sessions. As the study employed convenience sampling, the sample was not drawn from a sampling frame with a known population size; therefore, a precise population figure could not be established. The study focused on individuals who met the specified eligibility criteria and were available to participate during the data collection period. All three sessions followed the same procedure to ensure consistency in the exposure to the research stimulus. Before data collection, respondents received a brief explanation of the general purpose of the study and the questionnaire completion procedure. They were then asked to watch three AI-clay videos shown sequentially and subsequently complete the questionnaire based on their perceptions after exposure to the stimuli. The research sample was dominated by female and Generation Z respondents. Respondents did not have a control group, and the study relied on self-reported perceptions following exposure to the stimuli. Research ethics included informed consent based on adequate information, respondent anonymity, and voluntary participation. The videos contained narratives about environmental issues, including El Niño, deforestation, and their impacts on environmental disasters in Indonesia. In addition, the videos presented critical narratives concerning perceptions of government handling of environmental issues.

Table 1. Characteristics of AI-Generated Videos Used as Research Stimuli (source: Authors' own data based own Instagram @jaditau_claynamation)

No	Video Title	Upload Date	Views	Likes	Comments	Shares	Sends
1	**Native Forest Trees vs. Oil Palm Trees**	2 December 2025	2.5M	138K	1,412	20.7K	17.5K
2	**Causes of Disasters in Sumatra**	2 December 2025	19.7K	945	626	78	74
3	**Tesso Nilo National Park**	4 December 2025	62.6K	4,756	45	578	357

After all videos had been shown, the researcher distributed an online questionnaire link to the respondents. The questionnaire used a seven-point Likert scale, ranging from 1 = strongly disagree to 7 = very strongly agree. The seven-point scale was selected to provide a broader range of responses and to reduce respondents' tendency to choose neutral answers. All measurement items were adapted from previous studies that had been tested

for validity and reliability and were then adjusted to the context of AI-clay videos and environmental issues examined in this study.

Table 2. Demographic Profile of Respondents (n = 167) (source: Authors' own analysis based on survey data)

Characteristics	Category	Frequency (f)	Percentage (%)
Gender	Female	126	75.4
	Male	41	24.6
Education	High School (SMA)	119	71.3
	Undergraduate (S1/D4)	46	27.5
	Others	2	1.2
Age	18-20 years old	105	62.9
	21-23 years old	50	29.9
	> 23 years old	4	2.4
	Unknown	8	4.8
Experience	Have seen environmental content	165	98.8
	Have not seen	2	1.2

The research instrument consisted of several key constructs: AI credibility, emotional engagement, government brand trust, perceived government effectiveness, environmental knowledge, and attitude toward the environment. In addition, this study used a manipulation check to ensure that respondents understood the main message conveyed in the videos. Respondents with an average manipulation-check score below 4 were excluded from the analysis because they were considered not to have adequately captured the research stimulus.

Sampling was conducted using purposive sampling, with the criteria that respondents were able to understand digital video content and were willing to follow the entire research procedure. Before the main analysis, the data underwent a data-cleaning process, including checks for inconsistent answers, straight-lining, and overly rapid completion time. These steps were taken to maintain data quality and enhance the validity of the research findings.

The data were analyzed using Partial Least Squares Structural Equation Modeling with SmartPLS software. This method was chosen because it can accommodate complex research models involving multiple latent constructs and mediating relationships. The analysis was conducted in two stages: evaluation of the outer model and evaluation of the inner model. The outer-model evaluation included tests of convergent validity, discriminant validity, and construct reliability using outer loading, Average Variance Extracted (AVE), Composite Reliability (CR), and Cronbach's Alpha. The inner-model evaluation was conducted to test relationships among variables using path coefficients, R-square values, and bootstrapping to determine the significance of the research hypotheses.

Table 3. Measurement Items and Source Adaptation (source: Authors' own data)

Variable	Indicator	Main source adaptation

AI Credibility	Trust in the message	(Zubair et al., 2026)
	The video feels realistic	
	No doubt about the message content	
	Does not reduce message credibility	
Emotional Engagement	Emotionally involved	(Bolls, 2017), (Schmidt et al., 2023), (Winkler et al., 2023)
	Touches feelings	
	Creates concern	
	Connected with the message	
Government Brand Trust	Trust in handling environmental issues	(Anaya-Sánchez et al., 2020), (Özsaçmacı et al., 2026)
	Trust in providing environmental issue information	
	Honest in communicating environmental conditions	
	Trust in handling environmental issues	
Perceived Government Effectiveness	Effective in handling environmental problems	(Ayers, 2021)
	Optimal in preventing disasters	
	Good environmental policies	
	Responsive in addressing environmental problems	
Environmental Knowledge	Understanding environmental issues	(Kaiser et al., 2007)
	Understanding the impact of environmental problems	
	Understanding how to solve environmental problems	
	Gaining new knowledge	
Attitude Toward Environment	Protecting the environment is important	(MÜLLER et al., 2025)
	More critical toward environmental management	
	Positive attitude toward environmental conservation	
	Environmental issues should be a priority	

Results and Discussion

Validity and Reliability

Validity and reliability in SmartPLS can be assessed using Cronbach's Alpha, Composite Reliability, and Average Variance Extracted (AVE). The results show that Cronbach's Alpha and Composite Reliability values are above 0.70, ranging from 0.855 to 0.960. This indicates that the constructs are reliable and internally consistent. The AVE values are also above 0.50, ranging from 0.698 to 0.892. These results demonstrate that all constructs meet the criteria for convergent validity.

Table 4. Validity and Reliability Results (Source: Processed by the authors)

Construct	Cronbach's Alpha	Composite Reliability (rho_a)	Average Variance Extracted (AVE)
AI-Credibility	0.855	0.870	0.698
Emotional Engagement	0.872	0.880	0.724
Environment Knowledge	0.866	0.895	0.709
Government Brand Trust	0.946	0.947	0.823
Perceived Government Effectiveness	0.960	0.960	0.892

The R and R-square results indicate the extent to which the independent variable, AI credibility as the stimulus in this study, explains the variance of the dependent variables. For Government Brand Trust, the model explains 73.0% of the variance, while the remaining 27.0% is influenced by other factors. This also shows that the combination of Perceived Effectiveness (PE) and Environmental Knowledge (EK) is a highly important factor in determining whether the public trusts the government.

Table 5. R-square and Adjusted R-square Results (Source: Processed by the authors)

Dependent Variable	R-square	R-square Adjusted	Category (Chin, 1998)
BT (Government Brand Trust)	0.730	0.725	Strong
EE (Emotional Engagement)	0.347	0.343	Moderate
EK (Environment Knowledge)	0.213	0.208	Weak-Moderate
PE (Perceived Effectiveness)	0.177	0.167	Weak

The R-square value for Emotional Engagement (EE) is 0.347, indicating that the credibility of AI content contributes 34.7% to the formation of audience emotional engagement. Third-party AI content has a moderate influence in touching audience emotions, although audience emotions are also affected by other factors. AI content credibility explains 21.3% of respondents' environmental knowledge. The AI-Clay videos are therefore effective in providing new information, although 78.7% of environmental knowledge is still shaped by other sources. The lowest R^2 value is observed for Perceived Government Effectiveness (0.177), meaning that the model explains 17.7% of the variation in public perceptions of government effectiveness. This indicates weak predictive power (Hair Joseph Franklin et al., 2022). In other words, while Emotional Engagement (EE) and Environmental Knowledge (EK) derived from AI-Clay videos contribute to explaining perceptions of government effectiveness, they account for only a relatively small part of the overall variation. Other factors beyond those examined in this study may also shape

how the public perceives government effectiveness in managing environmental issues and disasters.

Discriminant validity was tested using the Heterotrait-Monotrait Ratio (HTMT). Based on the criterion proposed by Henseler et al. (Henseler et al., 2015), a model has good discriminant validity when HTMT values are below 0.90. The data processing results show that all HTMT values among constructs range from 0.108 to 0.866. Therefore, each construct in this study is clearly distinct, and discriminant validity is fulfilled. The relationship between Perceived Government Effectiveness and Government Brand Trust shows a very strong coefficient (β = 0.828). Therefore, this finding suggests that respondents who perceive the government as more effective tend to have a higher level of trust in the government as an institution.

Conceptually, Perceived Government Effectiveness refers to an individual's assessment of the government's ability to carry out its responsibilities, whereas Government Brand Trust reflects broader confidence in the government as a reliable institution capable of fulfilling its commitments in disaster management and environmental issues. As shown in Table 5, the HTMT value between Perceived Government Effectiveness and Government Brand Trust is 0.904, slightly exceeding the commonly recommended threshold of 0.90. This result suggests some empirical overlap between the two constructs and indicates that respondents may perceive government effectiveness and trust in the government as closely related in the context of environmental and disaster management. Nevertheless, the constructs remain conceptually distinct: Perceived Government Effectiveness focuses on perceptions of government capability and performance, whereas Government Brand Trust reflects broader confidence in the government's reliability and institutional commitment. Therefore, the discriminant validity between these two constructs should be interpreted with caution. Future research could employ more clearly differentiated indicators to further strengthen the empirical distinction between the two constructs.

Table 6. HTMT Results (Source: Processed by the authors)

Konstruk	AI Credibility	Emotional Engagement	Environmental Knowledge	Government Brand Trust	Perceived Effectiveness
AI Credibility	—	0,679	0,495	0,230	0,252
Emotional Engagement	0,679	—	0,517	0,338	0,283
Environmental Knowledge	0,495	0,517	—	0,095	0,078
Government Brand Trust	0,230	0,338	0,095	—	**0,904**
Perceived Effectiveness	0,252	0,283	0,078	**0,904**	—

Mediation analysis revealed distinct mediation patterns for the two pathways. For the Emotional Engagement pathway, the indirect effect via Perceived Government Effectiveness was not significant (p = 0.906), indicating an absence of mediation. In contrast, the Environmental Knowledge pathway exhibited a competitive mediation pattern, as the indirect effect via Perceived Government Effectiveness was negative, whereas the direct effect was positive. This indicates that Environmental Knowledge exerts

two opposing effects on Government Brand Trust: it can contribute positively through its direct effect yet simultaneously diminish trust indirectly through perceptions of government effectiveness. Thus, increased environmental knowledge may prompt the audience to evaluate government performance more critically, potentially undermining trust when perceptions of government effectiveness fail to meet their expectations.

Table 7. Mediation Test Results (Source: Processed by the authors)

Mediation Path	Original Sample (β)	T-Statistics	P-Values	Conclusion
AIC -> EE -> PE	0.195	3.993	0.000	Significant
AIC -> EE -> BT	0.006	0.119	0.906	Not Significant
AIC -> EK -> PE	-0.069	1.996	0.046	Significant Negative
AIC -> EK -> BT	-0.041	1.839	0.066	Not Significant
EE -> PE -> BT	0.274	4.195	0.000	Significant
EK -> PE -> BT	-0.124	1.999	0.046	Significant Negative
AIC -> EE -> PE -> BT	0.161	3.826	0.000	Significant

The AI-Credibility Model of Government Brand Trust

The research model is built on the Stimulus-Organism-Response (S-O-R) framework to analyze how environmental content produced using AI-clay technology affects public trust in government. In this model, the stimulus (S) is represented by AI-Credibility (AIC), which measures perceived credibility of third-party AI video content discussing disasters, including floods in North Sumatra and Aceh and biodiversity issues in Tesso Nilo National Park.

The organism (O) represents the internal process that occurs among audiences after exposure to the stimulus. In this study, the organismic process is divided into two routes based on the Elaboration Likelihood Model (ELM): the affective route and the cognitive route. The affective route is represented by Emotional Engagement (EE), whereas the cognitive route is represented by Environmental Knowledge (EK). The response (R) is the outcome of information exposure, namely audience perceptions of actual government performance (Perceived Effectiveness), which ultimately shape Government Brand Trust.

The novelty of this model lies in the use of AI-Credibility as the main stimulus and in the testing of the Environmental Knowledge pathway, which unexpectedly produces a negative effect. The model demonstrates that in the AI era, credible information does not always lead to trust when it is not accompanied by tangible effectiveness in the field.

Table 8. Path Coefficient Results (Source : Processed by the authors)

Variable Relationship	Original Sample (β)	T-Statistics	P-Values	Conclusion
AIC -> EE	0.589	10.370	0.000	Accepted (Highly Significant)

AIC -> EK	0.461	7.747	0.000	Accepted (Highly Significant)
EE -> PE	0.331	4.394	0.000	Accepted (Highly Significant)
EE -> BT	0.011	0.119	0.906	Rejected (Not Significant)
EK -> BT	-0.089	2.000	0.046	Accepted (Significant Negative)
EK -> PE	-0.150	2.039	0.042	Accepted (Significant Negative)
PE -> BT	0.828	14.150	0.000	Accepted (Highly Significant)

Although third-party AI content can build strong credibility and emotional engagement (T = 10.370), it fails to build trust directly (p = .906). More concerning for government branding is the finding that increased public knowledge reduces trust (EK -> BT = -0.089, p = .046). This indicates that respondents engaged in critical evaluation through the central route, triggered by the high frequency of flood disasters in 2026. Public trust is anchored in perceptions of effectiveness (T = 14.150), meaning that regardless of the sophistication of the information technology used, the public continues to demand tangible field-level outcomes as the primary basis for granting trust.

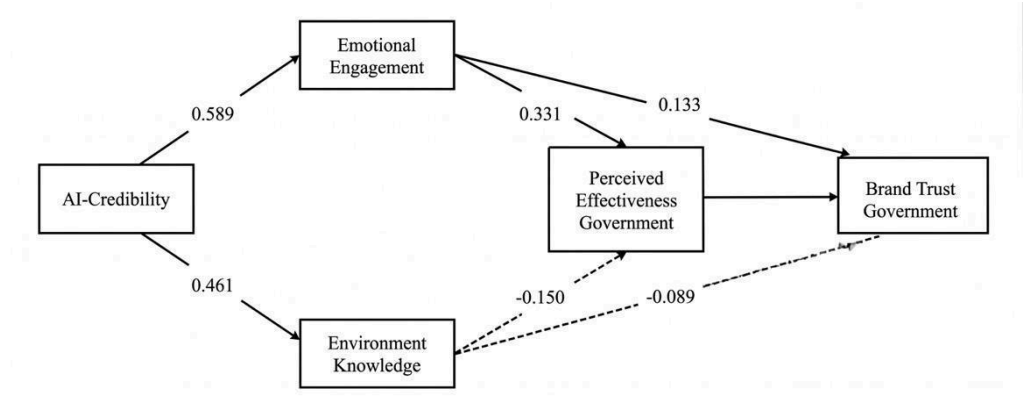


Figure 2: Model Fit (Source: Developed by the authors)

This study also conducted a post-hoc power analysis to determine the level of statistical power achieved in the structural relationships within the fit model. The results of the post-hoc power analysis at a 5% significance level showed achieved power values ranging from 0.614 to 1.000. Four of the five structural paths showed achieved power above 0.99, while the environmental knowledge path on perceived government effectiveness showed a lower achieved power of 0.614, which is also in line with the relatively small effect size (β = -0.150). Therefore, it can be concluded that this relationship does need to be interpreted with caution.

Discussion

The Effect of AI Content on Audience Response (S-O Pathway)

The research results show that the credibility of AI-based content produced by third parties is positively and significantly related to emotional engagement and perceived environmental knowledge. These findings indicate that the use of AI technology does not necessarily reduce audience acceptance of environmental messages. Conversely, when content is perceived as realistic, logical, informative, and creative, audiences tend to view it as credible content. In the Stimulus–Organism–Response (S-O-R) perspective, the credibility of AI content can be understood as an external stimulus related to the internal condition of the audience, both affectively and cognitively. The positive relationship with emotional engagement shows that message credibility is related to the audience's emotional involvement in environmental issues and disasters, while the relationship with perceived environmental knowledge shows that message credibility is also related to the audience's perception of their understanding of the issues being conveyed. Thus, the characteristics of AI-based messages can be one of the factors that support audience involvement in environmental communications carried out by non-institutional actors.

These findings can also be understood through the Elaboration Likelihood Model (ELM), especially because visual presentation based on Claymation, creativity, and message appeal can encourage affective involvement, while the information conveyed can encourage cognitive involvement. However, these results cannot be directly considered as evidence that the audience uses a peripheral route or a central route but rather indicate that AI-based content has the potential to involve both dimensions in the message reception process. In the context of environmental communication by third parties, message credibility does not solely come from formal government authority but can also be formed through perceptions of the quality and characteristics of the content. However, perceived credibility cannot be equated with factual accuracy, because audiences can assess content as credible without verifying all the information conveyed. Therefore, these findings show that AI has potential as a communication technology that can support the audience's emotional and cognitive involvement in environmental issues and disasters, but its effectiveness still needs to be accompanied by attention to information accuracy and source transparency.

The Phenomenon of Knowledge-Driven Critical Evaluation: The Negative EK-BT Path

This study reveals that environmental knowledge has a significant negative impact on trust in the government’s ability to manage the environment. Statistically, any increase in the audience’s understanding of environmental issues is associated with a decrease in their trust in the government. This means that the more the sample’s environmental knowledge increases, the less they trust the government’s ability to manage the environment and natural disasters.

This finding can be explained by the ELM theory, which utilizes the central route in the environment-media model. Members of the public who become better informed after watching AI-generated videos tend to engage in critical evaluation. They compare the video’s narrative with the reality on the ground, including data from the National Disaster Management Agency (BNPB) showing the high frequency of flooding in Sumatra. Deeper knowledge makes the public more aware of the gap between what the government ought to

be doing and the reality of disasters that continue to occur. This gap fuels intellectual skepticism and undermines the government's credibility in the eyes of the public.

The relationship between Environmental Knowledge and Government Brand Trust shows a negative direction with a relatively small coefficient ($\beta = -0.089$). Therefore, these findings need to be interpreted with caution and cannot be seen as evidence that environmental knowledge strongly reduces trust in government. This negative relationship can be understood as indicating that there is a weak negative association, that respondents who have a higher perception of environmental knowledge will carry out more critical evaluations of government brands that brand themselves as being able to overcome disasters and environmental issues. Considering the relatively small magnitude of the coefficient and the significance value, which is close to the conventional limit of 0.05, this finding should not be positioned as a strong trust-reducing effect. Additionally, because the study used a cross-sectional post-exposure design, the relationship cannot be interpreted as cause-and-effect.

Government Brand Trust is Grounded in Perceptions of Government Performance (PE–BT Path)

The structural model indicates a strong positive association between perceived government effectiveness and government brand trust ($\beta = 0.828$). Rather than interpreting this high coefficient as evidence that perceived government effectiveness is the sole or definitive determinant of government brand trust, the finding suggests a close alignment between evaluations of government performance and institutional trust. In the context of environmental governance, citizens' perceptions of whether the government is capable of effectively managing environmental issues appear to be closely associated with their trust in the government as an institution. This strong association also suggests that government brand perceptions may extend beyond the way environmental information is disseminated through advanced communication technologies and may be closely connected to evaluations of substantive government performance.

In this study, government brand trust encompasses perceptions related to the government's ability to manage environmental issues, provide information about environmental conditions, and communicate environmental conditions honestly and transparently. The strong PE–BT association therefore suggests that trust in the government brand is closely connected to how audiences evaluate the government's environmental performance and communication. Although environmental communication generated by third-party AI may facilitate audience engagement and increase the perceived credibility of environmental content, such communication alone may not be sufficient to establish stronger government brand trust. Instead, audiences may also evaluate whether the government is perceived to take meaningful and effective action in addressing environmental issues. In this sense, persuasive communication can attract attention and facilitate engagement, but perceptions of effective environmental governance appear to be closely associated with the formation of government brand trust. Nevertheless, this interpretation should be treated cautiously because the high coefficient may partly reflect the conceptual proximity between evaluations of government effectiveness and institutional trust.

Mediation Implications: The Crucial Role of Performance Perception

The mediation analysis further suggests that the relationship between third-party AI-generated environmental content and government brand trust may operate through perceptions of government performance rather than through emotional engagement alone. The emotional mediation pathway does not show a significant indirect effect on government brand trust, indicating that emotional engagement by itself may be insufficient to translate exposure to AI-generated environmental content into stronger trust in government. Instead, the findings highlight the importance of performance-related perceptions in understanding how environmental communication may be associated with government brand trust. However, this interpretation should be treated cautiously, as the explanatory power of the model for perceived government effectiveness is relatively modest ($R^2 = 0.177$), indicating that other factors beyond the variables examined in this study may also contribute to perceptions of government effectiveness.

From a practical perspective, the findings suggest that policymakers may benefit from complementing AI-based environmental communication with transparent information about government actions, measurable outcomes, and concrete evidence of environmental and disaster-management efforts. However, these implications should not be interpreted as evidence that AI-based communication strategies necessarily strengthen or weaken public trust across contexts. Rather, the findings indicate that the perceived effectiveness of government may be an important consideration when communicating environmental issues through emerging technologies. AI-generated communication may attract attention and facilitate engagement, but its potential contribution to government brand trust may depend on whether audiences also perceive the government as capable of taking meaningful action to address the issues being communicated.

Conclusion

Based on the data analysis and discussion, this study concludes that AI-based environmental content produced by a third-party content creator (@jaditau_claynamation) is perceived as a credible digital communication stimulus among Generation Z audiences. The findings show that perceived credibility of the AI-generated content is positively associated with emotional engagement and perceived environmental knowledge. At the same time, the findings reveal a potentially double-edged relationship between audience knowledge and government brand trust. Perceived environmental knowledge shows a negative association with Government Brand Trust, suggesting that greater perceived knowledge gained from independent third-party environmental content may be accompanied by lower levels of trust in government. This finding may indicate that exposure to environmental information from non-institutional sources is associated with more critical evaluations of government effectiveness, particularly in relation to environmental management and disaster mitigation. However, given the correlational nature of the SEM-PLS analysis and the cross-sectional design, this interpretation should not be understood as evidence that the content or knowledge directly reduces government trust.

Furthermore, the findings indicate that government brand trust cannot be understood solely in terms of persuasive digital communication or emotional engagement. Instead, perceptions of government effectiveness show a strong association with government brand trust, highlighting the importance of substantive evaluations of

government performance alongside communication efforts. The findings therefore suggest that AI-based environmental communication by third-party actors may contribute to audience engagement and perceptions of environmental knowledge, while its relationship with government trust is more complex. Rather than if technologically advanced or emotionally engaging communication will necessarily strengthen institutional trust, environmental communication should be considered alongside audiences' evaluations of government performance, transparency, and responsiveness in addressing environmental issues.

Perceptions of government effectiveness remain the main and most dominant factor in shaping public trust. In an era of digital transparency and AI-driven content, increasingly educated audiences tend to use independent information as a benchmark for demanding real accountability. Therefore, for public authorities, technology-based communication strategies can generate trust only when the communicated narrative is synchronized with evidence of successful environmental problem-solving in the real world.

This study has several limitations. First, the findings are based on a post-exposure survey involving three AI-generated Claymation videos on environmental themes produced by a single independent creator. Therefore, the findings should be interpreted within the specific communication context examined and should not be generalized to all forms of AI-generated environmental communication or third-party content creators. Second, the sample was dominated by Generation Z respondents and women, which may limit the generalizability of the findings to broader age and gender groups. Future research could therefore examine more diverse demographic groups and compare responses across different generations and gender compositions. Third, perceived environmental knowledge was measured using self-reported perceptions rather than objective knowledge assessments. Future studies could incorporate objective knowledge tests to distinguish perceived knowledge from actual knowledge. Fourth, the study did not include a control or comparison group, preventing a direct comparison between AI-generated, human-created, and official government environmental communication. Experimental designs incorporating these comparison conditions could provide stronger evidence regarding differences in audience responses across communication sources and formats.

Finally, several statistical considerations should also be acknowledged. The HTMT value between Perceived Government Effectiveness and Government Brand Trust was relatively high (HTMT = 0.904), suggesting a close conceptual relationship between the two constructs and warranting cautious interpretation of their discriminant distinction, despite meeting the threshold applied in this study. In addition, the explanatory power for Perceived Government Effectiveness was relatively modest ($R^2 = 0.177$), indicating that the variables included in the model explain only a limited proportion of the variance in perceived government effectiveness and that other relevant factors were not captured. These measurement and explanatory limitations suggest that future research should further refine the conceptual distinction between government effectiveness and government brand trust and incorporate additional antecedents of perceived government effectiveness to develop a more comprehensive model of institutional trust in environmental communication.

Overall, the findings of this study should be understood as relationships or associations between variables following stimulus exposure, not as evidence of a causal relationship. The lack of a control group and use of a cross-sectional post-exposure design limits the study's ability to determine whether exposure to AI-Clay content directly causes

changes in credibility, environmental knowledge, perceived government effectiveness, or Government Brand Trust. Nonetheless, this research provides an initial indication of how third-party AI-generated environmental content may relate to shaping audience perceptions of environmental issues and government institutions. Future research could strengthen these findings through experimental designs with control groups, comparisons between AI-generated and human-generated content, and comparisons between third-party communications and official government communications.

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