

Letter of Acceptance

Article Title

Does Generation Z's Consumerist Lifestyle Affect the Effectiveness of Plastic Waste Reduction Policies? Evidence From Banda Aceh, Indonesia

Author Name

Maura Naraseki Burkhan, Siti Nur Zalikha & Taufik

LoA Verification Link: <https://loa.mahesacenter.org/verify-loa/de42ff4d-cd9e-4b18-b354-41aa7f31254f>

Journal Name

Perspektif (Perspektif)

Volume / Issue

15 / 4

Publication Date

13 July 2026

Scan QR Code below to verify



جامعة الرانيري

Verified by: Chief Editor Journal

AR-RANIRY
LoA Number: PERSPEKTIF/2026/18647



Does Generation Z's Consumerist Lifestyle Affect the Effectiveness of Plastic Waste Reduction Policies? Evidence From Banda Aceh, Indonesia

Maura Naraseki Burkhan*, Siti Nur Zalikha & Taufik

Public Administration, Faculty of Social and Political Science, Ar-Raniry State Islamic University Banda Aceh, Indonesia

Received: mmddyy; Reviewed: mmddyy; Accepted: mmddyy

Abstract

Plastic waste has become a major environmental challenge in Indonesia, including in Banda Aceh, where the increasing use of single-use plastic packaging in cafés and food consumption activities contributes significantly to waste generation. While various government policies have been implemented to reduce plastic waste, limited studies have examined how behavioral factors, particularly Generation Z's consumerist lifestyle, influence policy effectiveness. This study aims to analyze the effect of Generation Z's consumerist lifestyle on the effectiveness of plastic waste reduction policies in Banda Aceh. The study employs a quantitative approach using a survey of 122 Generation Z respondents selected through Slovin sampling techniques. Data were collected through questionnaires and analyzed using simple linear regression with IBM SPSS Version 30. The findings reveal that Generation Z's consumerist lifestyle has a positive and significant effect on policy effectiveness ($\beta = 0.818$; $t = 15.054$; $p < 0.001$). The coefficient of determination ($R^2 = 0.654$) indicates that consumerist lifestyle explains 65.4% of the variation in policy effectiveness. These findings support the Behavioral Public Policy perspective, which emphasizes the importance of understanding behavioral characteristics in policy implementation. The study contributes to the public policy literature by demonstrating that behavioral factors play a substantial role in achieving environmental policy objectives. Therefore, policymakers should integrate behavioral approaches, environmental education, and targeted communication strategies into plastic waste reduction programs to improve policy effectiveness among Generation Z.

Keywords: Behavioral Public Policy; Behavioral Public Policy; Generation Z; Plastic Waste; Environmental Governance.

How to Cite: Maura Naraseki Burkhan, Siti Nur Zalikha & Taufik, (2026), Does Generation Z's Consumerist Lifestyle Affect the Effectiveness of Plastic Waste Reduction Policies? Evidence From Banda Aceh, Indonesia, *PERSPEKTIF*, 6 (2) (2018): 106-111

*Corresponding author:

E-mail: mauranarasekib@gmail.com

ISSN 2549-1660 (Print)

ISSN 2550-1305 (Online)



INTRODUCTION

Plastic pollution has emerged as one of the most urgent environmental challenges of the twenty-first century, threatening ecological sustainability, biodiversity, and human well-being. The rapid increase in plastic production, coupled with unsustainable consumption patterns and inadequate waste management systems, has significantly intensified environmental degradation worldwide. According to Pilapitiya and Ratnayake (2024), global plastic production exceeded 400 million metric tons in 2022, making plastics one of the fastest-growing manufactured materials worldwide. Despite their economic advantages, approximately 40% of all plastics produced are intended for single-use applications, resulting in massive waste generation after a very short period of consumption. The United Nations Environment Programme (UNEP, 2023) estimates that less than 10% of plastic waste is successfully recycled, while the remainder accumulates in landfills, rivers, and oceans, causing severe environmental pollution and threatening both terrestrial and marine ecosystems. Consequently, governments around the world have introduced various environmental policies to reduce plastic consumption and encourage more sustainable behavioral practices.

Indonesia is among the countries experiencing serious challenges in managing plastic waste. As one of the world's largest archipelagic countries, Indonesia generates millions of tons of plastic waste annually, with a significant proportion entering rivers and marine ecosystems (Jambeck et al., 2015). Rapid urbanization, population growth, changing lifestyles, and increasing dependence on convenience-oriented consumption have accelerated the production of municipal solid waste, particularly single-use plastics. In response, the Indonesian government has committed to reducing marine plastic debris by 70% through the National Plastic Action Partnership (NPAP) and various national waste management strategies. Furthermore, the Ministry of Environment and Forestry has issued Regulation No. 75 of 2019 concerning Producer Responsibility in Waste Reduction, encouraging producers and businesses to minimize single-use plastic packaging and adopt environmentally friendly alternatives. Nevertheless, achieving these policy objectives

remains challenging because environmental policies are influenced not only by institutional capacity but also by public behavioral responses (World Bank, 2021).

Previous studies have consistently demonstrated that environmental policies cannot achieve optimal outcomes without substantial behavioral changes among consumers. White et al. (2019) argue that sustainable environmental policies require individuals to modify their daily consumption habits rather than relying solely on regulatory enforcement. Similarly, Nielsen et al. (2020) emphasize that the effectiveness of plastic reduction policies largely depends on consumer acceptance, behavioral adaptation, and social norms. These findings indicate that understanding behavioral factors has become increasingly important in environmental governance, particularly among demographic groups characterized by intensive consumption patterns.

One demographic group receiving growing attention is Generation Z. Born during the digital era, Generation Z has distinctive behavioral characteristics compared with previous generations. They are highly connected to digital technologies, social media platforms, online shopping, food delivery applications, and contemporary café culture. These characteristics significantly influence their purchasing decisions and consumption patterns (Nguyen et al., 2022). While Generation Z generally demonstrates higher environmental awareness than previous generations, their actual consumption behavior often contradicts their environmental values because convenience, affordability, and lifestyle preferences frequently outweigh ecological considerations (White et al., 2019). Consequently, Generation Z represents both an opportunity and a challenge for environmental policy implementation.

The rapid expansion of cafés and beverage businesses has become one of the most visible manifestations of changing consumption behavior among Generation Z. Cafés are no longer merely places to consume food and beverages but have evolved into multifunctional social spaces for studying, working, networking, and leisure activities (Qismullah et al., 2022). The increasing popularity of cafés has simultaneously increased the use of disposable plastic cups,

lids, straws, food containers, and takeaway packaging. Although many consumers recognize the environmental consequences of plastic waste, single-use packaging remains widely preferred because it is inexpensive, practical, hygienic, and convenient for both businesses and consumers (Audianto et al., 2024). Consequently, cafés have become one of the sectors contributing substantially to urban plastic waste generation.

This phenomenon is particularly evident in Banda Aceh City, the capital of Aceh Province. According to the National Waste Management Information System (SIPSN), Aceh generated approximately 931,938 tons of municipal waste in 2025, with plastic accounting for approximately 25% of total waste composition (Ministry of Environment and Forestry, 2025). At the same time, Banda Aceh has experienced significant growth in cafés, coffee shops, and food-service businesses targeting Generation Z consumers. The demographic composition of Banda Aceh also provides an important context for understanding consumption patterns among younger residents. Data from the Central Bureau of Statistics of Banda Aceh City show the population distribution by age group and sex, providing demographic evidence of the composition of the city's population (Migrasi, 2025). Their frequent visits to cafés, intensive use of takeaway services, and preference for ready-to-use products potentially increase the consumption of disposable plastic packaging.

Recognizing these environmental challenges, both the central and local governments have introduced various policy initiatives to reduce plastic waste. Aceh Governor Regulation No. 138 of 2018 promotes waste reduction strategies by encouraging businesses and consumers to minimize single-use plastics and utilize environmentally friendly alternatives, including reusable containers and biodegradable packaging. Furthermore, the Banda Aceh City Government has implemented several behavioral campaigns, such as the **#BandaAcehTumblerMovement**, encouraging citizens to bring reusable tumblers when purchasing beverages. Some cafés and small businesses have also introduced incentive programs by providing discounts to customers who bring reusable drink containers. These initiatives illustrate that environmental policy implementation

increasingly incorporates behavioral approaches rather than relying exclusively on regulatory instruments.

From a theoretical perspective, Behavioral Public Policy (BPP) offers an appropriate framework for understanding how individual behavior influences policy effectiveness. Behavioral Public Policy integrates insights from behavioral economics, psychology, and public administration to explain why individuals often make decisions that deviate from rational assumptions (Straßheim & Beck, 2019). Instead of assuming that citizens automatically comply with government regulations, BPP emphasizes the importance of behavioral interventions, social norms, cognitive biases, and nudging strategies in shaping public responses to policy implementation. Accordingly, environmental policies should not only regulate behavior but also encourage voluntary behavioral change through information, incentives, and social influence.

Policy effectiveness is equally important in evaluating whether environmental regulations successfully achieve their intended objectives. According to Dunn (2018), policy effectiveness refers to the degree to which policy implementation produces expected outcomes and solves public problems. Effective environmental policies require not only well-designed regulations but also active participation from the target population. Therefore, behavioral characteristics become essential determinants of successful policy implementation, particularly in environmental governance where citizen participation directly affects policy outcomes.

Although previous studies have examined plastic waste management, environmental policy implementation, and consumer behavior separately (Prinardi et al., 2023; Wati et al., 2021), limited empirical research has investigated how Generation Z's consumerist lifestyle influences the effectiveness of plastic waste reduction policies from the perspective of Behavioral Public Policy. Most existing studies focus primarily on institutional performance, policy implementation, or waste management systems while paying relatively little attention to behavioral determinants of policy effectiveness. Consequently, empirical evidence explaining the relationship between consumer behavior and environmental policy

outcomes remains limited, particularly within the Indonesian context.

This study seeks to address this research gap by examining the influence of Generation Z's consumerist lifestyle on the effectiveness of plastic waste reduction policies in Banda Aceh City. Unlike previous studies, this research integrates Behavioral Public Policy theory with Dunn's policy effectiveness framework to explain how behavioral characteristics contribute to environmental policy outcomes. The findings are expected to enrich the literature on public administration and environmental governance while providing practical recommendations for policymakers in designing more behavior-oriented environmental policies capable of improving plastic waste reduction among Generation Z.

RESEARCH OBJECTIVES

The objective of this study is to examine the influence of Generation Z's consumerist lifestyle on the effectiveness of plastic waste reduction policies in Banda Aceh City using the Behavioral Public Policy perspective.

RESEARCH HYPOTHESIS

H₁: Generation Z's consumerist lifestyle has a significant effect on the effectiveness of plastic waste reduction policies in Banda Aceh City.

H₀: Generation Z's consumerist lifestyle has no significant effect on the effectiveness of plastic waste reduction policies in Banda Aceh City.

LITERATURE REVIEW

Behavioral Public Policy

Behavioral Public Policy (BPP) is an interdisciplinary approach that integrates behavioral economics, psychology, cognitive science, and public administration to improve public policy design and implementation. Unlike conventional policy approaches that assume individuals always act rationally, BPP recognizes that human decisions are often influenced by habits, cognitive biases, emotions, and social environments (Oliver, 2013; Straßheim & Beck, 2019). Therefore, effective public policies should be developed based on empirical evidence regarding how people actually behave rather than how they are expected to behave.

Oliver (2013) argues that Behavioral Public Policy emphasizes the application of behavioral evidence to enhance policy

outcomes. This approach has become increasingly important in environmental governance because many environmental problems originate from individual consumption behaviors. One of the most influential concepts within BPP is Nudge Theory, proposed by Thaler and Sunstein (2008), which explains that governments can encourage desirable behaviors by designing choice environments that make environmentally friendly decisions easier without restricting individual freedom. Examples include providing reusable alternatives, environmental campaigns, financial incentives, and information that encourages sustainable consumption.

Recent developments indicate that Behavioral Public Policy extends beyond nudging by incorporating continuous policy evaluation and evidence-based decision-making (Banerjee & John, 2025). Accordingly, this study adopts five dimensions of Behavioral Public Policy: behavioral change, behavioral insights, nudging, evidence-based policy, and policy evaluation. These dimensions explain how behavioral interventions can encourage environmentally responsible behavior among Generation Z, particularly in reducing the use of single-use plastics.

Policy Effectiveness

Policy effectiveness refers to the extent to which a public policy achieves its intended objectives and solves identified public problems. Dunn (2018) defines policy effectiveness as the degree to which government actions produce expected outcomes consistent with policy goals. Therefore, evaluating policy effectiveness requires not only assessing policy implementation but also measuring its actual impacts on society.

Campbell (1977) proposes five indicators commonly used to evaluate policy effectiveness, namely program success, goal achievement, stakeholder satisfaction, input-output efficiency, and overall goal attainment. These indicators provide a comprehensive framework for assessing whether public policies have successfully influenced public behavior and achieved expected outcomes.

In environmental governance, policy effectiveness depends not only on regulatory enforcement but also on public participation

and behavioral adaptation. Wati et al. (2021) found that waste management policies become more effective when supported by community awareness and participation. Likewise, Prinardi et al. (2023) demonstrated that the effectiveness of plastic reduction policies is strongly influenced by citizens' willingness to change their consumption behavior. These findings suggest that behavioral responses are essential determinants of successful environmental policy implementation.

Based on Dunn (2018) and Campbell (1977), this study measures policy effectiveness using five indicators: program success, goal achievement, program satisfaction, input and output efficiency, and overall goal achievement.

Relationship Between Behavioral Public Policy and Policy Effectiveness

Behavioral Public Policy provides an important theoretical foundation for understanding policy effectiveness because environmental policies ultimately depend on citizens' behavioral responses. Policies designed using behavioral insights are more likely to influence sustainable consumption patterns than policies relying solely on legal enforcement. In the context of plastic waste reduction, Generation Z's consumerist lifestyle becomes a critical behavioral factor influencing policy outcomes. Therefore, integrating Behavioral Public Policy into environmental policy implementation is expected to improve the effectiveness of plastic waste reduction programs by encouraging long-term behavioral change and increasing public participation.

RESEARCH METHODS

This study employed a quantitative research design using a causal associative approach to examine the influence of Generation Z's consumerist lifestyle on the effectiveness of plastic waste reduction policies in Banda Aceh City. The causal associative design was selected because it enables the identification and measurement of causal relationships between an independent variable (Generation Z's consumerist lifestyle) and a dependent variable (policy effectiveness).

The study was conducted over a three-month period in Banda Aceh City, Aceh Province, Indonesia. The target population

consisted of Generation Z residents aged 17–28 years who live in Banda Aceh and have experience visiting cafés or purchasing beverages packaged in single-use plastic containers. This population was selected because Generation Z represents one of the largest consumer groups and is considered the primary target of behavioral interventions aimed at reducing plastic waste.

The sample consisted of 122 respondents, determined using Slovin's formula with a 5% margin of error. Respondents were selected using purposive sampling, with the following inclusion criteria: (1) belonging to Generation Z (17–28 years old); (2) residing in Banda Aceh City; (3) visiting cafés or purchasing takeaway beverages at least once during the previous month; and (4) voluntarily agreeing to participate in the study.

Primary data were collected through a structured online questionnaire distributed via Google Forms, while secondary data were obtained from scientific journal articles, government regulations, policy reports, and official publications related to plastic waste management and environmental policy. Before completing the questionnaire, respondents received an explanation regarding the study objectives, confidentiality of responses, voluntary participation, and their right to withdraw at any time. Participation was based on informed consent, and no personally identifiable information was collected to ensure respondent anonymity.

The questionnaire was developed based on established theoretical frameworks. The independent variable, Generation Z's consumerist lifestyle, was measured using five indicators adapted from the Behavioral Public Policy framework: behavioral change, behavioral insights, nudging, evidence-based behavior, and policy evaluation. The dependent variable, policy effectiveness, was measured using five indicators adapted from Dunn (2018) and Campbell (1977): program success, goal achievement, program satisfaction, input-output efficiency, and overall goal achievement. All questionnaire items were measured using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Prior to hypothesis testing, the questionnaire was evaluated for construct validity using the Pearson Product-Moment correlation coefficient and for internal

consistency reliability using Cronbach's Alpha. Questionnaire items were considered valid when the calculated correlation coefficient exceeded the critical r-value, while a Cronbach's Alpha coefficient greater than 0.70 indicated acceptable reliability.

Data analysis was performed using IBM SPSS Statistics Version 30. The analytical procedure consisted of descriptive statistics, validity testing, reliability testing, classical assumption testing, including normality, linearity, and homoscedasticity, followed by simple linear regression analysis, t-test, and the coefficient of determination (R^2). These statistical procedures were conducted to determine the magnitude and significance of the influence of Generation Z's consumerist lifestyle on the effectiveness of plastic waste reduction policies in Banda Aceh City.

RESULTS AND DISCUSSION

Respondent Characteristics

A total of 122 Generation Z respondents participated in this study. Female respondents accounted for 54.1% (66 respondents), while male respondents represented 45.9% (56 respondents). Regarding age distribution, most respondents were between 21–24 years old (76.2%), indicating that the study primarily captured the perceptions of young adults who are actively engaged in urban consumption activities. In terms of café visitation, the majority of respondents (63.9%) visited cafés one to two times per week, confirming that cafés constitute one of the primary consumption environments for Generation Z in Banda Aceh.

Table 1. Characteristics of Respondents (n = 122)

Characteristics	Category	Frequency	Percentage (%)
Gender	Male	56	45.9
	Female	66	54.1
Age	17–20 years	11	9.0
	21–24 years	93	76.2
	25–28 years	18	14.8
Café Visits/Week	1–2 times	78	63.9
	3–4 times	29	23.8
	5–6 times	6	4.9
	>6 times	9	7.4

The respondent profile indicates that Generation Z in Banda Aceh frequently visits cafés, making this demographic appropriate for evaluating the effectiveness of plastic waste reduction policies implemented in food and beverage businesses.

Descriptive Analysis

Descriptive analysis was conducted to examine respondents' perceptions regarding Generation Z's consumerist lifestyle and the effectiveness of plastic waste reduction policies. Overall, respondents demonstrated positive perceptions toward both variables.

For the independent variable, respondents strongly agreed that using

reusable tumblers can reduce plastic waste generated by cafés. However, relatively lower agreement was found regarding the availability of environmentally friendly packaging alternatives, suggesting that business support for sustainable consumption remains limited.

Regarding policy effectiveness, respondents generally agreed that plastic waste reduction policies have contributed to reducing the use of disposable plastic packaging. Nevertheless, perceptions regarding policy implementation consistency were relatively lower, indicating that implementation remains uneven across cafés.

Table 2. Distribution of Respondents' Responses

Variable	SD	DA	N	A	SA
Generation Z Lifestyle					
Bring reusable tumbler	5	13	49	34	20
Tumbler reduces plastic waste	2	1	13	55	50
Environmental campaign influences behavior	2	5	49	42	23
Café provides eco-friendly packaging	2	23	33	51	13
Café successfully encourages waste reduction	5	25	38	39	15
Policy Effectiveness					
Policy consistently implemented	5	25	39	39	13
Policy reduces plastic use	3	10	24	64	21
Satisfaction with policy	2	6	26	51	36
Café facilities support policy	5	5	40	57	14
Policy changes consumption habits	1	4	42	57	18

The descriptive findings suggest that respondents have relatively high environmental awareness, although practical implementation by cafés still requires further improvement.

Instrument Testing

Before hypothesis testing, the research instrument was evaluated for validity and reliability.

Validity Test

All questionnaire items produced corrected item-total correlation coefficients greater than the critical value ($r = 0.149$), indicating that every statement item successfully measured its intended construct.

Table 3. Validity Test Results

Item	r-count	r-table	Result
1	0.574	0.149	Valid
2	0.518	0.149	Valid
3	0.719	0.149	Valid
4	0.726	0.149	Valid
5	0.811	0.149	Valid
6	0.743	0.149	Valid
7	0.706	0.149	Valid
8	0.702	0.149	Valid
9	0.702	0.149	Valid
10	0.750	0.149	Valid

Reliability Test

The reliability analysis produced a Cronbach's Alpha coefficient of 0.889, indicating excellent internal consistency.

Table 4. Reliability Test

Cronbach's Alpha	Number of Items	Interpretation
0.889	10	Excellent Reliability

These results confirm that the research instrument is both valid and reliable for measuring the study variables.

Classical Assumption Test

The normality assumption was evaluated using the Kolmogorov-Smirnov test.

Table 5. Normality Test

Test	Statistic	Sig.	Interpretation
Kolmogorov-Smirnov	0.050	0.200	Normally Distributed
Shapiro-Wilk	0.993	0.772	Normally Distributed

Since the significance value exceeded 0.05, the residuals were normally distributed, indicating that the regression analysis met the normality assumption.

Regression Analysis

Simple linear regression analysis was performed to determine the influence of Generation Z's consumerist lifestyle on policy effectiveness.

Table 6. Model Summary

R	R Square	Adjusted R Square	Std. Error
0.809	0.654	0.651	0.40988

The correlation coefficient ($R = 0.809$) indicates a very strong positive relationship between Generation Z's consumerist lifestyle and policy effectiveness. Furthermore, the coefficient of determination ($R^2 = 0.654$) shows that 65.4% of the variation in policy effectiveness can be explained by the

independent variable, while 34.6% is influenced by other factors not included in the model.

Hypothesis Testing

The significance of the regression model was evaluated using the t-test.

Table 7. Regression Coefficient (t-Test)

Variable	B	Beta	t	Sig.
Constant	0.698	—	3.505	<0.001
Generation Z Lifestyle	0.818	0.809	15.054	<0.001

The regression coefficient is positive ($\beta = 0.818$) and statistically significant ($t = 15.054$; $p < 0.001$). Because the calculated t-value is substantially higher than the critical value (1.657), the null hypothesis is rejected.

These findings demonstrate that Generation Z's consumerist lifestyle has a significant positive influence on the effectiveness of plastic waste reduction policies in Banda Aceh. The positive regression coefficient indicates that stronger environmentally responsible behavioral tendencies among Generation Z are associated with higher perceived effectiveness of government policies aimed at reducing single-use plastic waste.

Discussion

Interpretation of Findings

The findings indicate that Generation Z's consumerist lifestyle has a significant positive influence on the perceived effectiveness of plastic waste reduction policies in Banda Aceh. This positive relationship does not imply that higher consumerism directly leads to greater

environmental sustainability. Instead, it suggests that Generation Z individuals who frequently engage in consumption activities, particularly in cafés, are more likely to encounter government regulations, environmental campaigns, and business initiatives aimed at reducing single-use plastics. Greater interaction with these policy instruments increases their awareness of environmental issues and enhances their perception of policy effectiveness. This finding is consistent with the Behavioral Public Policy perspective, which argues that policy outcomes are strongly influenced by how individuals respond to behavioral interventions embedded in their daily decision-making processes rather than by regulations alone (Oliver, 2013; Straßheim & Beck, 2019).

The descriptive findings further reveal that respondents generally demonstrated positive environmental awareness, particularly regarding the benefits of using reusable tumblers and reducing single-use plastic packaging. However, respondents expressed relatively lower agreement concerning the

availability of environmentally friendly packaging alternatives in cafés. This result indicates that although environmental awareness among Generation Z has improved, the implementation of sustainable practices by business operators remains inconsistent. Previous studies have similarly reported that consumers are more willing to adopt environmentally responsible behaviors when businesses provide convenient and accessible sustainable alternatives (White et al., 2019; Nielsen et al., 2020). Therefore, behavioral change depends not only on individual awareness but also on supportive environmental and institutional conditions.

Furthermore, the relatively high explanatory power of the regression model indicates that behavioral factors play a substantial role in determining perceptions of policy effectiveness. Environmental policies are more likely to achieve their intended outcomes when citizens actively participate and voluntarily modify their consumption behavior. This finding supports Dunn's (2018) argument that policy effectiveness should be evaluated based on the extent to which policies achieve their intended objectives through meaningful societal responses. It also reinforces recent studies emphasizing that environmental governance requires collaboration between government regulations, business participation, and behavioral adaptation by consumers (UNEP, 2023; Pilapitiya & Ratnayake, 2024). Consequently, strengthening behavioral interventions alongside regulatory measures is essential for improving the long-term effectiveness of plastic waste reduction policies targeting Generation Z.

Behavioral Public Policy Perspective

The findings of this study can be interpreted through the lens of Behavioral Public Policy (BPP), which emphasizes that public policy outcomes depend not only on regulatory frameworks but also on how individuals perceive, interpret, and respond to policy interventions (Oliver, 2013; Straßheim & Beck, 2019). In the context of plastic waste reduction, Generation Z's consumerist lifestyle shapes the frequency with which individuals encounter environmental campaigns, reusable packaging initiatives, and government regulations in cafés. These repeated interactions gradually influence their

environmental awareness and strengthen positive perceptions of policy effectiveness.

The positive relationship identified in this study supports the argument that behavioral factors are essential determinants of successful environmental governance. Individuals who frequently consume products packaged in single-use plastics are simultaneously exposed to behavioral interventions such as reusable tumbler campaigns, eco-friendly packaging, informational signage, and financial incentives. These interventions function as behavioral cues that encourage more sustainable choices without limiting individual freedom, reflecting the principles of Nudge Theory proposed by Thaler and Sunstein (2008). Rather than relying solely on legal enforcement, nudging modifies the choice environment so that environmentally responsible behavior becomes easier and more attractive.

Furthermore, the findings indicate that behavioral change requires collaboration between governments, businesses, and consumers. Environmental awareness alone is insufficient when sustainable alternatives remain inaccessible or inconvenient. Therefore, policy effectiveness depends on supportive institutional environments that facilitate environmentally responsible behavior (White et al., 2019). This perspective is consistent with recent developments in Behavioral Public Policy, which advocate evidence-based interventions, continuous policy evaluation, and adaptive policy design to encourage long-term behavioral change (Banerjee & John, 2025). Consequently, plastic waste reduction policies should combine regulatory measures with behavioral strategies, including environmental education, social norm campaigns, incentive mechanisms, and collaboration with café businesses to strengthen sustainable consumption among Generation Z.

Comparison with Previous Studies

The findings of this study are generally consistent with previous research emphasizing the importance of behavioral factors in determining the effectiveness of environmental policies. Prinardi et al. (2023) found that the effectiveness of the plastic bag reduction policy in Sukabumi was influenced not only by regulatory implementation but also by public participation, policy socialization, and changes

in citizens' consumption behavior. Similarly, Wati et al. (2021) concluded that successful waste management policies require active community involvement alongside adequate institutional support. These studies reinforce the present finding that behavioral responses constitute an important determinant of environmental policy success.

The present study also supports international evidence demonstrating that sustainable consumption policies are more effective when they incorporate behavioral approaches. White et al. (2019) argue that environmental policies should focus on changing everyday consumption habits by creating supportive social norms, improving convenience, and increasing consumer motivation. Likewise, Nielsen et al. (2020) reported that plastic reduction policies are more successful when consumers perceive environmentally friendly alternatives as accessible and practical rather than burdensome. These findings explain why Generation Z respondents who regularly interact with cafés tend to develop more positive perceptions of plastic waste reduction policies.

Despite these similarities, this study offers an important contribution to the existing literature. Previous studies have primarily evaluated environmental policies from institutional or implementation perspectives, focusing on regulatory compliance, waste management systems, or public participation (Prinardi et al., 2023; Wati et al., 2021). In contrast, this study positions Generation Z's consumerist lifestyle as the primary explanatory variable influencing policy effectiveness. By integrating the Behavioral Public Policy framework with Dunn's policy effectiveness theory, this research demonstrates that behavioral characteristics are not merely contextual factors but significant predictors of environmental policy outcomes. Consequently, the study extends existing public administration literature by highlighting the need to incorporate behavioral insights into the design and implementation of plastic waste reduction policies, particularly those targeting younger generations whose consumption patterns increasingly shape urban environmental sustainability.

Theoretical Contribution (Novelty)

This study contributes to the public policy literature by integrating the Behavioral Public Policy (BPP) framework with policy effectiveness theory to explain plastic waste reduction from a behavioral perspective. Previous studies have primarily evaluated plastic waste reduction policies based on institutional performance, regulatory implementation, or community participation (Prinardi et al., 2023; Wati et al., 2021). In contrast, this study demonstrates that Generation Z's consumerist lifestyle is a significant behavioral determinant influencing the perceived effectiveness of environmental policies. By positioning consumer behavior as the primary explanatory variable, this research extends the application of Behavioral Public Policy within environmental governance and public administration. The findings also provide empirical evidence that successful environmental policies depend not only on formal regulations but also on the ability of policy instruments to influence everyday behavioral decisions. Therefore, this study broadens the theoretical application of Behavioral Public Policy in the context of plastic waste management and sustainable consumption among younger generations.

Policy Implications

The findings suggest that improving the effectiveness of plastic waste reduction policies requires a stronger integration of behavioral approaches into environmental governance. Regulatory measures alone are unlikely to produce long-term behavioral change unless they are supported by interventions that encourage voluntary participation. Therefore, the Banda Aceh City Government should strengthen behavioral-based policy instruments through continuous environmental education, digital awareness campaigns targeting Generation Z, and collaboration with cafés and beverage businesses.

Practical interventions may include expanding reusable tumbler incentive programs, encouraging cafés to provide reusable or biodegradable packaging, introducing reward mechanisms for environmentally responsible consumers, and displaying behavioral prompts at points of purchase. Such interventions reflect the

principles of Behavioral Public Policy by modifying the choice environment to make sustainable behavior easier and more attractive (Thaler & Sunstein, 2008; White et al., 2019). In addition, local governments should establish partnerships with universities, youth communities, business associations, and environmental organizations to promote sustainable consumption as a social norm rather than merely a regulatory obligation. Regular policy evaluation using behavioral indicators is also necessary to assess changes in public awareness and consumption patterns over time. By combining regulatory enforcement with evidence-based behavioral interventions, plastic waste reduction policies are more likely to achieve sustainable environmental outcomes and stronger public participation.

Research Limitations

This study has several limitations that should be considered when interpreting the findings. First, the research was conducted only in Banda Aceh City, limiting the generalizability of the results to other regions with different demographic and socio-cultural characteristics. Second, the study employed a cross-sectional design, which captures respondents' perceptions at a single point in time and therefore cannot explain long-term behavioral changes. Third, the model examined only one independent variable, whereas policy effectiveness may also be influenced by other factors such as environmental knowledge, policy enforcement, social norms, income level, and business compliance. Future research is therefore recommended to employ longitudinal designs, include additional explanatory variables, and compare findings across different cities or provinces to obtain a more comprehensive understanding of behavioral factors affecting plastic waste reduction policies.

CONCLUSION

This study concludes that Generation Z's consumerist lifestyle plays a significant role in shaping the perceived effectiveness of plastic waste reduction policies in Banda Aceh. The findings demonstrate that environmental policy effectiveness is influenced not only by the existence of regulations but also by the

behavioral responses of the target population. Generation Z, as one of the most active consumer groups in cafés and beverage businesses, has frequent interactions with policy interventions such as reusable tumbler campaigns, environmentally friendly packaging initiatives, and public awareness programs. These interactions contribute to strengthening environmental awareness and encouraging more sustainable consumption practices.

From a theoretical perspective, this study extends the application of the Behavioral Public Policy (BPP) framework by demonstrating that consumer behavior is an important determinant of environmental policy effectiveness. The findings confirm that successful public policies should incorporate behavioral insights alongside regulatory instruments to encourage voluntary behavioral change. This contribution enriches the public administration literature by integrating behavioral policy approaches with policy effectiveness theory in the context of plastic waste management.

From a practical perspective, the findings suggest that the Banda Aceh City Government should strengthen behavioral-based policy interventions through continuous environmental education, digital campaigns targeting Generation Z, and closer collaboration with cafés, beverage businesses, educational institutions, and community organizations. Incentive programs for reusable containers, wider adoption of environmentally friendly packaging, and behavioral nudges should become integral components of local plastic waste reduction strategies. Such collaborative efforts are expected to increase public participation while promoting sustainable consumption patterns.

This study is limited to Generation Z respondents in Banda Aceh City and examines only one behavioral factor influencing policy effectiveness. Future studies are recommended to include additional determinants, such as environmental knowledge, social norms, environmental attitudes, business compliance, and policy enforcement, while expanding the research to different geographical contexts and employing longitudinal designs. Such approaches would provide a more comprehensive understanding of the behavioral mechanisms that influence the long-

term effectiveness of plastic waste reduction policies.

BIBLIOGRAPHY

- Aini, Q., Marlina, H., Ningsih, F., & Huzairi, I. (2022). Identifikasi Penerapan Konsep New Normal Pada Kafe Di Aceh. *Rumoh Journal of Architecture*, 12(1), 29–37. <https://doi.org/10.37598/rumoh.v12i1.193>
- Anggraeni, P. D., & Sabrina, T. A. (2021). Analisis Customer Engagement Terhadap Kafe Di Kota Tegal. *Journal of Tourism and Economic*, 4(1), 18–27. <https://doi.org/10.36594/jtec/7afvzv16>
- Audianto, F., Agusta, A., Sn, S., & Ds, M. (2024). Perancangan Kemasan Kopi Reuseable Sebagai Sarana Edukasi Pengurangan Penumpukan Sampah Plastik Sekali Pakai Untuk UMKM “Kopi Pagi.”
- Banerjee, S., & John, P. (2025). Behavioral public policy: past, present, & future. <https://doi.org/10.1093/polsoc/puaf012>
- BCR, C. (2024, June 27). Bawak Tumbler dan Dapatkan Diskon di BCR Coffee. Instagram. <https://www.instagram.com/reel/C8uezU5S AV1/?hl=en>
- Bunda, M. R., & Tjenreng, M. B. Z. (2025). Analisis Efektifitas Kebijakan Pengaduan Publik dalam Pelayanan Adminitrasi Publik. *SCIENTIFIC JOURNAL OF REFLECTION : Economic, Accounting, Management and Business*, 8(1), 189–196. <https://doi.org/10.37481/sjr.v8i1.1033>
- Campbell, J. P. (1977). On the nature of organizational effectiveness. Jossey-Bass.
- Dinkes Kota Banda Aceh. (2025, August 25). #GerakanBandaAcehBawaTumbler. Instagram. <https://www.instagram.com/p/DNxsgHIUtdG/?hl=en>
- DLHK3. (2020). Surat Edaran Gubernur Aceh Nomor 660/3020 tentang Gerakan Pengurangan Penggunaan Plastik Sekali Pakai di Wilayah Provinsi Aceh. <https://dlhk3.bandaacehkota.go.id/download/surat-edaran-no-660-3020-tentang-gerakan-pengurangan-penggunaan-plastik-sekali-pakai-di-wilayah-provinsi-aceh/>
- Dunn, W. N. (2018). Public policy analysis: An integrated approach (6th ed.). Routledge.
- Fadila, Y. (2024, March 16). Di Balik Gairah Cafe, Sampah Plastik Membludak di Yogyakarta. IDN TIMES JOGJA. <https://jogja.idntimes.com/news/jogja/di-balik-gairah-kafe-sampah-plastik-membludak-di-yogyakarta-00-v81ln-9b2drj>
- Field, A. (2018). Discovering statistics using IBM SPSS Statistics (5th ed.). Sage.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2022). Multivariate data analysis (9th ed.). Cengage.
- Hasyim, A., Zahara, I., & Dewi, R. (2023). Gambaran Gaya Hidup Pada Remaja Yang Nongkrong Di Cafe Overview Of The Lifestyle Of Teenagers Who Hang Out In Cafes. *INSIGHT: Jurnal Penelitian Psikologi*, 1(4), 706–712. <https://doi.org/10.29103/uhjpm.v2i1.13420>
- Humas. (2025, March 13). Pengelolaan Sampah Jadi Prioritas, Pemerintah Siapkan Strategi Komprehensif. Sekretariat Kabinet Republik Indonesia. <https://setkab.go.id/pengelolaan-sampah-jadi-prioritas-pemerintah-siapkan-strategi-komprehensif/>
- Kemenlh. (2025). Komposisi Sampah Provinsi Aceh 2025. SIPSN KEMENLH. <https://sampahnasional.kemenlh.go.id/port al-indikatif/data/komposisi-sampah>
- KemenLH. (2025). Timbulan Sampah Provinsi Aceh 2025. SIPSN KEMENLH. <https://sampahnasional.kemenlh.go.id/port al-indikatif/data/timbulan-sampah>
- Migrasi, K. (2025, March 11). Jumlah Penduduk Menurut Kelompok Umur dan Jenis Kelamin di Kota Banda Aceh. Badan Pusat Statistik Kota Banda Aceh. <https://bandaacehkota.bps.go.id/id/statistic s-table/3/WVc0MGEyMXBkVFUxY25KeE9Hd DZkbTQzWkVkb1p6MDkjMw%3D%3D/jum lah-penduduk-menurut-kelompok-umur dan-jenis-kelamin-di-kota-banda-aceh--2021.html>
- Mulang, I. (2025, June 11). Polusi Plastik Hanya 10 Persen Berhasil Didaur Ulang. RADAR KALTENG. <https://radarkalteng.com/2025/06/11/pol usi-plastik-hanya-10-persen-berhasil-di daur-ulang/>
- Muslim, A. (2023, December 1). Fenomena di Banda Aceh; Kafe Modern Masih Berkonsep Plastik. PORTALNUSA.Com. <https://portalnusa.com/2023/12/01/fenom ena-di-banda-aceh-kafe-modern-masih-berkonsep-plastik/>
- Nielsen, T. D., Holmberg, K., & Stripple, J. (2019). Need a bag? A review of public policies on plastic carrier bags—Where, how, and to what effect? *Waste Management*, 87, 428–440. <https://doi.org/10.1016/j.wasman.2019.02.025>
- Oliver, A. (2013). Behavioral public policy. Cambridge University Press.
- Pilapitiya, N. T., & Ratnayake, A. S. (2024). The world of plastic waste: A review. *Cleaner Materials*, 11, 100220.

- <https://doi.org/10.1016/j.clema.2024.100220>
- Prinardi, G., Purwanti, D., & Fajar FY Basori, Y. (2023). Efektivitas Pelaksanaan Kebijakan Pengurangan Penggunaan Kantong Plastik Di Kota Sukabumi. *Kebijakan: Jurnal Ilmu Administrasi*, 14(2), 152–166. <https://doi.org/10.23969/kebijakan.v14i2.5823>
- Qismullah, F. I., Fakriah, N., & Safira, N. (2022). Penggunaan Cafes Dan Warung Kopi Sebagai Thinking Space Oleh Mahasiswa Di Aceh. *Jurnal Geuthèë: Penelitian Multidisiplin*, 5(2), 161. <https://doi.org/10.52626/jg.v5i2.173>
- Rahmansyah, A. W., & Pradana, G. W. (2020). Efektivitas Kebijakan Pahlawan Ekonomi Guna Menurunkan Tingkat Kemiskinan Di Kota Surabaya. Retrieved <https://surabayakota.bps.go.id/>
- Saaduddin, I. (2025, September 15). Mari Bela dan Beli Produk UMKM Kota Banda Aceh. Instagram. https://www.instagram.com/reel/D0nd0AR_EgOi/
- Saputra, A. (2026, April 19). Sampah Plastik Capai 12,4 Juta Ton Per Tahun. *DetikNews*. <https://news.detik.com/foto-news/d-8450668/sampah-plastik-capai-12-4-juta-ton-per-tahun>
- Sekaran, U., & Bougie, R. (2020). *Research methods for business: A skill-building approach* (8th ed.). Wiley.
- Strassheim, Holger., & Beck, Silke. (2019). *Handbook of behavioural change and public policy*. Edward Elgar Publishing. elgaronline.com/downloadpdf/display/edcoll/9781785367847/9781785367847.00005.pdf
- Suryanti, Y. (2025, September 7). Menteri LH: Anggaran 2026 Naik 29 Persen, Pemerintah Ingin Manfaatnya untuk Kelola Sampah dan Kendalikan Perubahan Iklim. *Kemenlh.Go.Id*. <https://kemenlh.go.id/news/detail/menteri-lh-anggaran-2026-naik-29-persen-pemerintah-ingin-manfaatnya-untuk-kelola-sampah-dan-kendalikan-perubahan-iklim>
- Thaler, R. H., & Sunstein, C. R. (2008). *Nudge: Improving decisions about health, wealth, and happiness*. Yale University Press.
- UNESA, F. (2025, November 9). Krisis Sampah Plastik dan Arah Kebijakan Lingkungan 2025 Dari Daratan Hingga Lautan Nusantara. UNESA. <https://agridigi.fkp.unesa.ac.id/post/krisis-sampah-plastik-dan-arrah-kebijakan-lingkungan-2025-dari-daratan-hingga-lautan-nusantara>
- United Nations Environment Programme. (2023). *Turning off the tap: How the world can end plastic pollution and create a circular economy*. United Nations Environment Programme.
- Vania, R. (2025, January 14). Indonesia Perkuat Komitmen Kurangi Polusi Plastik Dengan Percepatan Perkembangan Solusi Guna Ulang. *Plastikdiet.Id*. <https://plasticdiet.id/indonesia-perkuat-komitmen-kurangi-polusi-plastik-dengan-percepatan-perkembangan-solusi-guna-ulang/>
- Wati, F. R., Rizqi, A., M. Iqbal, M. I., Langi, S. S., & Putri, D. N. (2021). Efektivitas Kebijakan Pengelolaan Sampah Berbasis Tempat Pengelolaan Sampah Terpadu 3R di Indonesia. *PERSPEKTIF*, 10(1), 195–203. <https://doi.org/10.31289/perspektif.v10i1.4296>
- White, K., Habib, R., & Hardisty, D. J. (2019). How to SHIFT consumer behaviors to be more sustainable: A literature review and guiding framework. *Journal of Marketing*, 83(3), 22–49. <https://doi.org/10.1177/0022242919825649>