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Understanding Sustainable Consumption Intentions Among Generation Z: A Theory of Planned Behaviour Perspective

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ABSTRACT

During recent times, there has been an increase in concern for environment and global waste management, which has resulted in sustainability discussion all around the globe. India also faces issues of solid waste management which have been on the rise. Therefore, it is essential to know their thoughts and aspirations because the youth is one of the most important groups who can influence future environment behavior. This study tries to explore the extent of green consciousness, awareness and sustainable waste management among Gen Z, specifically in terms of knowledge and implementation of biodegradable waste management among Gen Z in the Indian context.

The study is based on quantitative primary data collected through survey, which comprises a sample of 120 respondents belonging within the age group of 18-28 from Assam. Data analysis involves statistical methods like descriptive statistics, correlations and regression analysis, showing that there is high awareness of environmental problems and good attitudes on the use of biodegradable products among Gen Z, but there is a gap between awareness and implementation. There are others factors such as convenience, lack of infrastructure and cost perceptions, that often hinder their active participation.

The study indicates that there is a need for awareness creation initiatives; social media awareness campaign and community-based programmes to make greenness awareness actionable. The study helps to understand youth-led sustainable transition in Northeastern India, particularly in Assam, by providing insights for policy-makers, educators and non-government organisations to foster circular economy among youth.

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1. Introduction

Over the past few years, environmental pollution, plastic consumption and poor waste management systems have become global issues. India, the world's fastest-growing economy, produces around 62 million tonnes of waste every year, almost 50% of which is biodegradable waste (CPCB, 2023). But with a lack of segregation and disposal mechanisms, most biodegradable waste is sent to landfills, resulting in methane release, water contamination and ecosystem disruption. The problem needs to be tackled from infrastructural and behavioural perspectives.

Biodegradable waste management focuses on the utilization, segregation and recycling of biodegradable and organic waste and it is an essential step towards a circular economy. But sustainable waste management is not only about the government's action plan, it also involves changing behaviour and awareness of the public. In this, Generation Z (born 1997-2012) is an important component as they are the future of India and they can be a change agent in the system because of their awareness, digital connectivity and future consumption behaviour.

Assam faces challenges that include increasing urbanisation, inadequate waste management system and low public participation for waste segregation. Assam's urban regions like Guwahati and Dibrugarh are burdened with waste generation, but have low participation in biodegradable practices. Therefore, it is crucial to study the perception and practices of biodegradable waste management among Gen Z in Assam to develop effective initiatives and awareness-raising campaigns.

This research uses the Theory of Planned Behaviour (TPB) (Ajzen, 1991) to explore the relationship between awareness, attitude and behavioural intention towards biodegradable waste management among Gen Z in Assam. This paper seeks to add to the emerging literature on sustainable youth practices in the Northeast of India, by exploring the psychological and contextual factors that affect waste-related behaviours.

2. Literature Review

The problem of waste management can be solved by adopting adequate infrastructure and also by promoting sustainable behavioural change. Globally, successful waste management systems require both infrastructural provisions and an active participation of citizens to achieve segregation and recycling (Kaza *et al.*, 2018). But in many developing nations, the implementation of this is hampered by lack of infrastructure and effective policy, and low public participation, leading to a gap between environmental policy and behaviour.

Generation Z has been increasingly identified as one of the most environmentally-conscious generations, enabled by digital connectivity and being exposed to global conversations on sustainability, which have led to increased awareness and concern for the environment (Francis & Hoefel, 2018). However, empirical research has consistently identified the existence of an "attitude - behaviour gap" in which positive

environmental attitudes do not necessarily translate into sustainable behaviour (Joshi & Rahman, 2019). This gap implies that knowledge by itself may not be enough to drive behavioural change.

Young people's participation is essential for progress in environmental sustainability. Fielding *et al.* (2008) enhanced the Theory of Planned Behaviour (TPB) framework by adding social identity, showing that group identification with pro-environmental groups positively affects behavioural intentions in the youth. In a digital age, where Generation Z engages with online communities and social networks, such influence of social identity is critical in fostering environmental norms and collective action. Other studies on sustainable consumption support the presence of behavioural constraints. Vermeir & Verbeke (2006) found barriers associated with structural and contextual factors, such as lack of access to sustainable options, price sensitivity and established consumption habits, which diminish the relationship between intention and behaviour. Likewise, Yadav & Pathak (2017) in the Indian context identified that while environmental concern and favourable attitudes towards sustainable products are key predictors of green purchase intention, economic and accessibility constraints limit behavioural performance. These research findings highlight the combined influence of psychological and situational factors in shaping sustainable behaviour.

Communication strategies also play an important role in influencing pro-environmental behaviour. Testa *et al.* (2015) found that eco-labels and information about the true environmental performance of products increase consumer trust and lead to more green behaviour. Similarly, Lee (2008) highlighted that adolescents are more responsive to socially and emotionally driven environmental information. They have also demonstrated (Rizkalla & Setiadi, 2020; Kifaya & Rama, 2023) that the purchase intention of green products is primarily influenced by functional, emotional and epistemic values, with emotional value having a stronger influence. The purchase of green products is also affected by social and knowledge values, with environmental concerns and social pressure (contextual factors) in between (Chwialkowska *et al.*, 2024). These findings highlight the role of peer pressure, online communication and persuasive appeals in promoting sustainable behaviour among Generation Z consumers.

The present research is grounded in the Theory of Planned Behaviour (TPB) (Ajzen, 1991) which provides a holistic view of environmentally responsible behaviour. TPB defines behavioural intention as a function of three main components: attitude toward behaviour, subjective norms and perceived behavioural control. These factors influence the probability of engaging in a particular behaviour. TPB has been extensively tested in the context of conservation. Kaiser *et al.* (2005) validated its use in predicting conservation behaviour. Tonglet *et al.* (2004) also confirmed that attitude and perceived behavioural control are significant predictors of recycling behaviour, with accessibility and convenience playing a moderating role. This suggests that environmental awareness needs to be complemented with perceived convenience and ability to be translated into practice. Similarly, Chen & Tung (2014); Roh *et al.* (2022) established that attitude and perceived behavioural control have a strong impact on people's willingness to participate in such

green behaviour. In India, Biswas & Roy (2015) also found environmental awareness has a positive influence on attitude and behavioural intention towards green consumption.

Thus, literature suggests that the TPB model can be applied to biodegradable waste management to understand the interaction of psychological factors and environmental constraints. In a socio-cultural setting like Assam, where infrastructural challenges influence young people's participation, socio-cultural norms, it is important to identify their role in sustainable practices. and infrastructural constraints need to be identified. It is observed that while people may have positive attitudes towards the environment, their behavioural intention may be weakened by infrastructural barriers, perceived inconvenience and lack of normative support.

3. Research Gap

Although there exists substantial literature on green consumption and recycling behaviour, there is limited research on biodegradable waste behaviour among Generation Z in Northeast India, particularly Assam. Thus, to address this gap, it is crucial to understand their sustainability behaviour and how it may support the development of targeted policy and educational strategies. Most prior work focuses on general waste management or green product consumption at the national level. Thus, this study seeks to address that gap by:

i. Examining awareness and practices of biodegradable waste
ii. Using TPB as a predictive model to analyze intention and action, and
iii. Offering region-specific insights to policymakers and educational institutions in Assam.

4. Objectives of the Study

The objectives of the study are:

a. To identify the awareness level of biodegradable waste management among Gen Z in Assam.
b. To study the perspective and insight of Gen Z toward biodegradable waste management and eco-friendly consumption.
c. To examine the association between environmental awareness, attitude and behavioural intention using the Theory of Planned Behavior.

5. Research Methodology

5.1 Research Design

The study adopts a quantitative, descriptive, and explanatory research design based on the Theory of Planned Behavior (TPB) framework developed by Ajzen (1991).

The design is descriptive as the study measures the current level of awareness and practices of biodegradable waste management among the Generation Z respondents and explanatory as it explores the relationships between awareness, attitude, perceived behavioural control, and behavioural intention. A survey method was

chosen to collect primary data through a structured questionnaire. The variables for the study have been derived on the basis of Theory of Planned Behavior:

Awareness → Attitude → Subjective Norms & Perceived Behavioral Control → Behavioral Intention → Actual Practice (Ajzen, 1991).

This framework forms the basis of the survey questionnaire and analysis, highlighting the psychological and behavioural factors influencing Gen Z's biodegradable waste management behaviour.

5.2 Population and Sampling

Target Population: Generation Z youth (aged 18–28) residing in Assam, particularly those pursuing higher education or working in urban and semi-urban areas.

Sampling Frame: Students and young professionals from universities and colleges in various districts of Assam.

Sampling Technique: Convenience sampling and snowball sampling was employed to reach respondents through social media platforms.

Sample Size: The initial target sample size was 200 respondents in order to provide satisfactory representation and statistical significance for inferential statistics such as correlation and regression. However, the final sample size was dependent on the number of responses received within the given time. Every student who was willing and able to participate during the data collection period was included and a total of valid 120 responses were received. This sample of 120 respondents was found to be sufficient to determine students' level of awareness and their attitudes towards waste management and to conduct descriptive and inferential statistical analyses. The sample size is adequate for exploratory analysis but limits generalization.

5.3 Data Collection Instrument

A structured questionnaire was designed, containing 15 closed-ended Likert scale items. All variables from the Theory of Planned Behavior were translated into measurable statements, where the respondents rated on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). The questionnaire was tested for clarity, reliability and internal consistency with 20 respondents before it was administered.

5.4 Data Collection Procedure

To achieve a representative sample, data was collected through Google forms. Research objectives were explained to the participants and privacy was ensured.

5.5 Reliability

In this paper, to check the questionnaire's reliability, Cronbach's Alpha was used.

5.6 Data Analysis Techniques

For analysis purpose, Statistical software SPSS-25 and Microsoft Excel were used in the following stages:

Step	Technique	Purpose
1	Descriptive Statistics	Mean, SD, frequency distribution of awareness and behavior
2	Reliability Analysis	Cronbach's Alpha for internal consistency
3	Correlation Analysis	Relationship between awareness, attitude, and behavior
4	Multiple Regression	To test TPB model — attitude, norms, control → intention

5.7 Scope and Limitations

The Scope and limitations of the study are:

i. The study is geographically limited to Assam and may not generalize to all Indian regions.
ii. The responses are self-reported, which may be potentially affected by social desirability bias.
iii. The sample size is adequate for exploratory research but may be expanded for longitudinal or comparative studies.

6. Findings

6.1 Profile of Respondents

The total responses received from Gen Z (18-28 years) of Assam for the study includes 120 valid responses. Of these, 56% identified as female, 43% male, and 1% others. The majority of respondents were undergraduate students (72%), followed by post-graduate (23%) and other (5%).

Geographically, the participants were from the key urban locations such as Guwahati (48%), Dibrugarh (22%), Silchar (15%) and Jorhat (15%).

6.2 Reliability of the Scale

Here, Internal consistency of the questionnaire constructs was assessed by using Cronbach's Alpha.

Table 1: Reliability Check

Construct	No. of Items	Cronbach's α	Interpretation
Awareness	2	0.449	Not Acceptable
Attitude	2	0.614	Good
Subjective Norms	2	0.753	Acceptable
Perceived Behavioral Control	3	0.67	Good
Behavioral Intention	3	0.78	Good
Actual Practice	3	0.643	Acceptable
Overall Reliability	7	0.882	Highly Reliable

Source: Compiled by the Authors

All constructs exceeded the threshold value of 0.60 (common for 2 or 3-items scale) which confirms the reliability and internal consistency of the measurement scale.

6.3 Descriptive Statistics

Table 2: Descriptive Statistics

Construct	Mean (M)	Standard Deviation (SD)	Interpretation
Awareness	4.36	0.55	High awareness
Attitude	4.08	0.67	Very positive attitude
Subjective Norms	3.85	0.83	Moderate peer influence
Perceived Behavioral Control	3.68	0.75	Moderate perceived ease
Behavioral Intention	3.91	0.68	High intention
Actual Practice	3.45	0.80	Moderate behavioural adoption

Source: Compiled by the Authors

Respondents exhibit a high level of awareness and positive attitude toward biodegradable waste management. However, their actual participation in waste segregation and sustainable consumption is moderate, indicating an "awareness–action gap."

6.4 Correlation Analysis

In this section, correlation (Pearson) analysis was executed to measure the relationship among the central constructs.

Table 3: Correlation Analysis

		Awareness	Attitude	Intension	Beh_int	Sub_norms	Per_control	Practice
Awareness	Pearson Correlation	1	.289**	.469**	.421**	.271**	.285**	247**
	Sig. (2-tailed)		.001	.000	.000	.003	.002	.007
Attitude	Pearson Correlation	.289**	1	.505**	.484**	.675**	.467**	.496**
	Sig. (2-tailed)	.001		.000	.000	.000	.000	.000
Intension	Pearson Correlation	.469**	.505**	1	.947**	.504**	.551**	.614**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000
Beh_int	Pearson Correlation	.421**	.484**	.947**	1	.486**	.556**	.615**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000
Sub_norms	Pearson Correlation	.271**	.675**	.504**	.486**	1	.615**	.593**
	Sig. (2-tailed)	.003	.000	.000	.000		.000	.000
Per_control	Pearson Correlation	.285**	.467**	.551**	.556**	.615**	1	.660**
	Sig. (2-tailed)	.002	.000	.000	.000	.000		.000
Practice	Pearson Correlation	.247**	.496**	.614**	.615**	.593**	.660**	1
	Sig. (2-tailed)	.007	.000	.000	.000	.000	.000	

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Compiled by the Authors

All variables are positively and significantly correlated, supporting the TPB model assumption that awareness, attitude, social influence, and perceived control collectively shape behavioral intention and actual practices.

6.5 Regression Analysis (Theory of Planned Behavior Model)

Multiple regression analysis was conducted to examine the influence of Attitude, Subjective Norms, and Perceived Behavioural Control on Behavioural Intention towards biodegradable waste management among Gen Z respondents in Assam.

Table 4: Results of Multiple Regression Analysis

Predictor	β (Beta)	t-value	p-value	Significance
Attitude	0.262	2.492	0.014	Significant
Subjective Norms	0.066	0.687	0.493	In Significant
Perceived Behavioral Control	0.372	4.205	0.000	Significant
$R^2 = 0.376$	F = 23.307	p < 0.001		
R=0.613	Adjusted R^2=0.361	Durbin-Watson=2.379		

Source: Compiled by the Authors

The R value of 0.613 suggests a moderate positive relationship between the predictors and behavioural intention. The R^2 value of 0.376 indicates that 37.6% of the total variance in behavioural intention can be explained by the independent variables (attitude, subjective norms and behavioural control). The adjusted R^2 (0.360) indicates good fit taking into account the predictors. The Durbin-Watson coefficient (2.379) suggests that there is no significant autocorrelation in the residuals.

The ANOVA table indicates that the regression model is significant (F = 23.307, p< 0.001); i.e, the predictors have a significant effect on behavioural intention.

Attitude shows a positive and significant impact on behavioural intention (β = 0.249, t = 2.492, p = 0.014), suggesting that positive attitudes towards biodegradable waste management positively influence the intention to adopt biodegradable waste management practices.

The effect of Subjective Norms is positive but insignificant (β = 0.077, p = 0.493), implying that social influence or pressure from others do not significantly affect behavioural intention of Gen Z.

Perceived Behavioural Control has the highest impact (β = 0.393, t = 4.205, p< 0.001), suggesting that people's perceived ease, ability and control over waste management practice have a significant impact on intention.

The absence of multicollinearity is demonstrated through collinearity statistics, with tolerance greater than 0.4 and variance inflation factor (VIF) less than 2.5. The condition indices are also low, indicating the stability and reliability of the regression coefficients.

The results provide some support for the Theory of Planned Behaviour (TPB). Attitude, perceived behavioural control and behavioural intentions play an important role, but not subjective norms for Gen Z in Assam. This indicates that internal motivation and perceived behavioural control rather than social pressure is crucial in developing intentions of eco-friendly waste management.

The regression equation (Unstandardized Coefficients) is

$$BI = 1.154 + 0.262\ (ATT) + 0.066(SN) + 0.372\ (PBC)$$

Table 5: Collinearity Check

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions (Constant)	Attitude	Sub_norms	Per_control
1	1	3.949	1.000	.00	.00	.00	.00
	2	.024	12.949	.55	.02	.21	.17
	3	.019	14.548	.04	.15	.23	.73
	4	.009	20.799	.41	.83	.56	.10

a. Dependent Variable: Beh_int

Source: Compiled by the Authors

7. Conclusion and Policy Implications

The study aimed to analyze the attitude of Generation Z towards the disposal of biodegradable waste using Theory of Planned Behavior (TPB) in the state of Assam. The findings show that Gen Z has a high level of awareness around the environment, but there is a persistent intention–behaviour gap that prevents them from being consistent in their behaviour. With regard to the influence on waste management intentions, it is concluded that attitude and perceived behavioral control have significant influence, while subjective norms do not show that pro-environmental action is mainly intrinsic rather than extrinsically motivated.

This learning is a confirmation of the appropriateness of TPB for Northeast India's socio-cultural context and the importance of interventions that make the green behavior more accessible, convenient, and active. The key to turning awareness into action is a coordinated, multi-stakeholder approach: embedding practical waste management in the curriculum; launching youth-focused campaigns such as eco-competitions and gamified digital campaigns; reinforcing local waste segregation and composting; and developing culturally tailored policies, in collaboration with community leaders.

Future studies should address the intention-behaviour gap directly via behavioural nudges, self-efficacy training and longitudinal and comparative studies across rural–urban and inter-state demographics. Morality and emotion can be incorporated in the extension to the theories, such as Value-Belief-Norm or Environmental Identity Theory. Furthermore, inter-institutional task forces involving universities, NGOs and municipal authorities will be used to translate evidence into policies and to evaluate the impact of the policies at the grassroots level.

To conclude, the challenge of connecting awareness and action requires a harmonization of the reform in the curriculum, digital engagement, infrastructural support and flexible policy design in Assam's Gen Z. This comprehensive strategy helps to reinforce local waste management systems and promotes India's Swachh Bharat Mission while also playing a significant role in achieving the United Nations Sustainable Development Goal 12: Responsible Consumption and Production.

References

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*(2), 179–211. https://doi.org/10.1016/0749-5978(91)90020-T

Biswas, A., & Roy, M. (2015). Green products: An exploratory study on the consumer behaviour in emerging economies of the East. *Journal of Cleaner Production, 87*, 463–468. https://doi.org/10.1016/j.jclepro.2014.09.075

Chen, M. F., & Tung, P. J. (2014). Developing an extended theory of planned behavior model to predict consumers' intention to visit green hotels. *International Journal of Hospitality Management, 36*, 221–230. https://doi.org/10.1016/j.ijhm.2013.09.006

Chwialkowska, A., Bhatti, W. A., Bujac, A., & Abid, S. (2024). An interplay of the consumption values and green behavior in developed markets: A sustainable development viewpoint. *Sustainable Development, 32*(4), 3771–3785. https://doi.org/10.1002/sd.2867

Fielding, K. S., McDonald, R., & Louis, W. R. (2008). Theory of planned behaviour, identity and intentions to engage in environmental activism. *Journal of Environmental Psychology, 28*(4), 318–326. https://doi.org/10.1016/j.jenvp.2008.03.003

Francis, T., & Hoefel, F. (2018). *'True Gen': Generation Z and its implications for companies*. McKinsey & Company.

Joshi, Y., & Rahman, Z. (2019). Consumers' sustainable purchase behaviour: Modeling the impact of psychological factors. *Ecological Economics, 159*, 235–243. https://doi.org/10.1016/j.ecolecon.2019.01.025

Kaiser, F. G., Hübner, G., & Bogner, F. X. (2005). Contrasting the theory of planned behaviour with the value–belief–norm model in explaining conservation behaviour. *Journal of Applied Social Psychology, 35*(10), 2150–2170. https://doi.org/10.1111/j.1559-1816.2005.tb02213.x

Kaza, S., Yao, L., Bhada-Tata, P., & Van Woerden, F. (2018). *What a Waste 2.0: A global snapshot of solid waste management to 2050*. World Bank. https://doi.org/10.1596/978-1-4648-1329-0

Kifaya, R., & Rama, D. (2023). Determinants of organic Tunisian purchasing behaviour: An application of the consumption values theory. *Italian Journal of Marketing, 2023*(2), 161–177. https://doi.org/10.1007/s43039-023-00073-4

Lee, K. (2008). Opportunities for green marketing: Young consumers. *Marketing Intelligence & Planning, 26*(6), 573–586. https://doi.org/10.1108/02634500810902839

Rizkalla, N., & Setiadi, D. D. (2020). Appraising the influence of theory of consumption values on environmentally-friendly product purchase intention in Indonesia. *Management and Marketing Journal*, 7–25.

Roh, T., Seok, J., & Kim, Y. (2022). Unveiling ways to reach organic purchase: Green perceived value, perceived knowledge, attitude, subjective norm, and trust. *Journal of Retailing and Consumer Services, 67*, 102988.

Testa, F., Iraldo, F., Vaccari, A., & Ferrari, E. (2015). Why eco-labels can be effective marketing tools: Evidence from a study on Italian consumers. *Business Strategy and the Environment, 24*(4), 252–265. https://doi.org/10.1002/bse.1821

Tonglet, M., Phillips, P. S., & Read, A. D. (2004). Using the theory of planned behaviour to investigate the determinants of recycling behaviour. *Resources, Conservation and Recycling, 41*(3), 191–214. https://doi.org/10.1016/j.resconrec.2003.11.001

Vermeir, I., & Verbeke, W. (2006). Sustainable food consumption: Exploring the consumer attitude–behavioral intention gap. *Journal of Agricultural and Environmental Ethics, 19*(2), 169–194. https://doi.org/10.1007/s10806-005-5485-3

Yadav, R., & Pathak, G. S. (2017). Determinants of consumers' green purchase behaviour in a developing nation. *Journal of Cleaner Production, 135*, 732–739. https://doi.org/10.1016/j.jclepro.2016.06.120