Green Consumerism among Gen-Z in Tier-II Indian Cities: A Case Based Exploration of Emerging Urban Markets

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ABSTRACT

Generation Z (Gen-Z) represents a pivotal demographic for advancing sustainable consumption, yet a gap persists between their pro-environmental attitudes and actual purchasing behaviors. This study examines the demographic, social, and environmental factors influencing green purchase decisions among professional students in Greater Visakhapatnam City, a rapidly developing Tier-II urban center in India. Despite increasing environmental awareness, social and informational barriers continue to hinder consistent eco-friendly purchasing habits. Drawing on the Theory of Planned Behavior (TPB) and Value-Belief-Norm (VBN) theory, this research explores how personal norms, perceived behavioral control, and environmental awareness shape sustainable consumption. Data were collected through a structured questionnaire from 179 respondents, with 164 valid cases analyzed using Chi-Square tests, ANOVA, and regression analysis. Instrument reliability was confirmed using Cronbach's Alpha. While primary data was gathered from Gen-Z students in Visakhapatnam, insights were contextually benchmarked against consumer trends in comparable Tier-II cities such as Surat, Coimbatore, and Nagpur. Results indicate that age and education significantly impact green purchasing behavior, with younger and more educated respondents showing stronger eco-friendly preferences. Social influences—including peers, family, and media—also play a crucial role in shaping consumer behavior. Regression analysis highlights that environmental awareness, perceived behavioral control, and moral obligation significantly predict green purchase intention and behavior. This study offers practical insights for marketers, educators, and policymakers aiming to promote sustainable consumption among India's youth. The integration of TPB and VBN frameworks within an emerging urban context provides both theoretical and empirical contributions to the literature on green consumer behavior, particularly in relation to Generation Z.

Keyterms*:* Green purchase behavior, Gen-Z consumers, environmental awareness, Theory of Planned Behavior (TPB), Value-Belief-Norm (VBN) Theory, sustainability.

INTRODUCTION

Green marketing has evolved since the late 1980s, driven by growing consumer awareness and corporate consciousness toward environmental sustainability (Polonsky, 1994). In recent years, governments worldwide have intensified efforts to promote sustainable manufacturing and marketing practices that minimize environmental impact (Ottman, 2011). As a response, many corporations have incorporated green marketing strategies into their Corporate Social Responsibility (CSR) initiatives, recognizing sustainability as a competitive advantage (Leonidou et al., 2013). This study explores the purchase behaviour of Gen-Z consumers in green markets, contextualized within Visakhapatnam—an emerging Tier-II city demonstrating rapid urbanization, growing sustainability awareness, and a large student population. The localized nature of the study provides depth and context. Visakhapatnam, with its growing youth demographic, expanding urban infrastructure, and rising environmental consciousness, serves as a microcosm of India's emerging Tier-II cities. It's green transition journey offers replicable insights for similar urban ecosystems. This study adopts a localized yet scalable case-based approach, using Visakhapatnam as a proxy and benchmarking with other Tier-II cities to extract broader implications. This case study method enables a nuanced understanding of Gen-Z consumers' motivations and constraints in emerging green markets. This study makes a distinct contribution by addressing the behavioral dynamics of green consumption in a Tier-II Indian city, a setting underrepresented in existing literature. Moreover, by integrating TPB and VBN theories, it provides a comprehensive framework

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that captures both social and moral dimensions influencing Gen-Z behavior. This dual-theoretical lens offers enhanced explanatory power compared to prior single-framework studies, advancing current understanding of sustainable consumer behavior in emerging economies.

REVIEW OF LITERATURE:

Several studies have demonstrated that consumers are highly aware of green products and express a strong interest in purchasing them (Akehurst et al., 2012). Although awareness of green products is increasing globally, converting this awareness into consistent purchasing behavior remains a challenge. In India, Nguyen et al. (2019) note that this gap is largely due to higher pricing, limited product availability, and deeply rooted conventional buying habits in Tier-II cities. Price sensitivity has also been emphasized as a major obstacle, especially among younger consumers (Gleim et al., 2013).

From a global perspective, Gleim et al. (2013) further explain that Western consumers often hesitate to pay a premium for green products due to skepticism about environmental claims and a lack of trust in eco-labels. In such contexts, regulatory frameworks and institutional trust are key in shaping purchasing behavior.

In contrast, Indian consumers are more influenced by peer norms, affordability, and accessibility, as highlighted by Nguyen et al. (2019). Rather than relying on regulatory assurance, Indian Gen-Z buyers depend on social influence, brand familiarity, and perceived short-term value, as also supported by Diksha Dubey et al. (2024).

Green marketing has emerged as a crucial aspect of modern business evolution, as consumers increasingly demand sustainable product choices (Kotler, 2011). Marketers are now focused on developing strategies to attract green-conscious consumers by understanding what persuades them to purchase eco-friendly products (Peattie & Crane, 2005). Research suggests that factors such as price sensitivity, ecological safety, brand value, product personalization, health benefits, and technological integration significantly impact green purchase decisions (Joshi & Rahman, 2015). However, there remains a gap in identifying which of these factors hold the most weight for different consumer segments.

In particular, Gen-Z consumers are emerging as a critical demographic in sustainable consumption due to their strong environmental concerns and digital literacy (Francis & Hoefel, 2018). However, they are also highly price-sensitive and critical in their decision-making process (Muralidharan & Xue, 2016). Businesses must, therefore, determine whether their primary focus should be on affordability, brand perception, environmental impact, or technological innovation when targeting this group.

Existing research acknowledges that consumers today have extensive knowledge about product choices, making purchasing decisions increasingly complex (Hartmann & Apaolaza-Ibáñez, 2012). Businesses are thus concentrating on identifying the most influential factors that drive consumer interest in green products. Understanding these drivers can help companies design effective marketing strategies that not only retain eco-conscious consumers but also attract future generations, ensuring long-term sustainability in the marketplace.

By addressing these factors, this study aims to bridge the gap in understanding the purchasing behavior of Gen-Z consumers regarding green products and contribute to the development of more effective sustainable marketing strategies.

Gen-Z becomes an increasingly influential demographic in the beauty and personal care market, understanding their attitudes and behaviors is crucial for industry stakeholders. Social media platforms play a crucial role in influencing Gen Z's purchasing decisions. Research by Smith (2021) highlights that Gen Z consumers rely heavily on digital platforms such as Instagram, TikTok, and YouTube for beauty and personal care product recommendations. A study by Djafarova & Rushworth (2017) found that social media influencers significantly impact young consumers' attitudes toward brands, as they are perceived as more relatable and trustworthy than traditional advertisements.

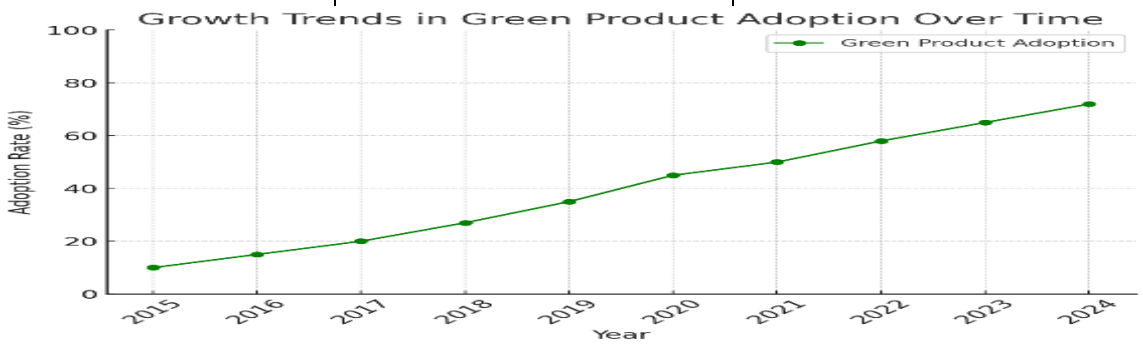
According to several researches, university students with higher education can comprehend, evaluate, and offer accurate environmental data more quickly than those with lower education (Amin & Tarun, 2020).

According to study, this customer base is the most ecologically aware, comparably, various studies revealed that the majority of college students polled preferred brands that are both ecologically and socially conscious (Vermillion & Peart, 2010).

Consumer attitudes and their awareness, Green Brand Positioning (GBP), and Green Brand knowledge (GBK) are important in promoting Green Buying Intentions (GBI) in the Indian market. Better Brand Image (BI) and Brand Trust (BT) may successfully translate favorable customer perceptions into real green buying decisions (Diksha Dubey et al, 2024)

Literature Sources Organized by Time Period & Theoretical Constructs

Time Period	**Studies & Authors**	**Key Theoretical Constructs / Focus**
Classical (2000–2012)	Stern (2000), Hinrichs (2000), De Pelsmacker et al. (2005), Peattie & Crane (2005), Berger & Heath (2007), Zepeda & Li (2007), Vermillion & Peart (2010), Griskevicius et al. (2010), Akehurst et al. (2012), Hartmann & Apaolaza-Ibáñez (2012), Kotler (2011)	Core TPB and VBN theory, foundational green marketing concepts, social norms, ethical & environmental consumer profiles, brand positioning, attitude-behavior gap
Mid-Period (2013–2016)	Gleim et al. (2013), Nestle (2013), Sexton & Sexton (2014), Joshi & Rahman (2015), Muralidharan & Xue (2016), Djafarova & Rushworth (2017), Francis & Hoefel (2018)	Price sensitivity, behavioral barriers, social media & influencer impact, Gen-Z buying traits, product personalization, brand value
Recent (2019–2025)	Nguyen et al. (2019), Amin & Tarun (2020), Alam & Zakaria (2021), Smith (2021), Diksha Dubey et al. (2024), Vishnoi et al. (2025)	Environmental awareness, green brand trust & positioning, social media influence, Indian Gen-Z market, green buying intentions, education level impact



While the diagrammatic trend analysis focuses on the post-2015 period to reflect recent shifts in Gen-Z consumer behavior, foundational literature dating back to the early 2000s is incorporated to provide theoretical depth and contextual grounding. This chronological approach enables a comprehensive understanding of green consumer behavior across time.

The following types of consumers are most significant for green markets:

Eco-conscious Consumers: Individuals who prioritize sustainability and environmental impact in their purchasing decisions. (Griskevicius, V., Tybur, J. M., & Van den Bergh, 2010)

Health-focused Consumers: Shoppers who seek organic and natural products for health benefits often support green markets (Nestle, M.,2013).

Affluent Consumers: Higher-income individuals may have more disposable income to spend on premium green products (Sexton, S. E., & Sexton, A. L.,2014).

Millennials and Gen Z: Younger generations tend to value sustainability and are more likely to support eco-friendly brands (Vishnoi, S. K., Mathur, S., Agarwal, V., Virmani, N., & Jagtap, S., 2025).

Local Supporters: Consumers who prefer locally sourced products often contribute to green markets by choosing sustainable options (Hinrichs, C. C.,2000).

Ethical Consumers**:** Those who are concerned about fair trade and ethical sourcing are crucial for green market growth (De Pelsmacker, P., Driesen, L., & Rayp, G.,2005).

Trendsetters: Influencers and early adopters who promote green products can drive wider consumer interest (Berger, J., & Heath, C., 2007).

Environmental Activists: Individuals actively involved in environmental causes often lead by example in their purchasing habits (Stern, P. C.,2000)

Families: Parents looking for safe, non-toxic products for their children may gravitate towards green markets (Zepeda, L., & Li, J.,2007).

Educated Consumers: People with higher education levels may be more aware of environmental issues and thus more inclined to support green initiatives (Alam, M. M., & Zakaria, A. F. M.,2021).

Research Gap

Although a substantial body of literature exists on consumer awareness regarding green marketing, much of it remains focused on general attitudes and perceptions rather than on the behavioral aspects of green purchasing. Recent studies have emphasized the need to critically examine the specific factors that significantly influence actual purchase decisions—particularly among Generation Z consumers, a distinct demographic known for their digital fluency, heightened social awareness, and value-driven consumption. Despite their expressed concern for environmental sustainability, Gen Z's buying behavior is shaped by a complex interplay of social, psychological, and contextual factors that remain underexplored in current research. This gap highlights the necessity for a focused inquiry into what truly motivates or inhibits green purchasing among this emerging consumer segment. Although the study is geographically situated in Visakhapatnam, the city serves as a representative Tier-II urban center in India. Visakhapatnam's demographic composition, rapid urbanization, strong presence of professional students, and increasing digital and green awareness among youth position it as a microcosm of emerging Indian cities where Gen-Z is an influential consumer segment.

Need For the Study

In the contemporary global landscape, environmental sustainability has emerged as a pressing concern, prompting a paradigm shift in both consumer behavior and business strategies. Green marketing, though conceptualized several decades ago, continues to face challenges in achieving widespread consumer acceptance and behavioral change (Vilkaite-Vaitone & Skackauskiene, 2019). A critical gap persists in sensitizing and mobilizing consumers, particularly among younger demographic groups such as Millennials and Gen Z, who are poised to become key decision-makers and influencers in the green economy (Judijanto et al., 2024; Sitorus et al., 2022).

Furthermore, understanding consumer perceptions is crucial to the effectiveness of green marketing strategies. Although awareness of environmental issues is increasing, many consumers still face ambiguity regarding what qualifies as a genuinely green product (Deshmukh & Tare, 2022). The marketplace has become saturated with claims of eco-friendliness, leading to consumer confusion concerning the authenticity and relevance of these claims. Given that numerous brands position themselves as "green," discerning truly sustainable products from superficial or misleading marketing remains a significant challenge. Consequently, a thorough understanding of consumer needs and expectations is imperative for businesses seeking to establish a competitive edge through credible and transparent green initiatives.

While general attitudes toward sustainability tend to be positive, a comprehensive understanding of the key social, environmental, and psychological factors influencing actual green purchase behavior remains limited. Previous research has predominantly concentrated on consumer attitudes, with comparatively little focus on the behavioral and situational determinants that translate attitudes into purchasing decisions. In this context, the current study explores the dynamics of consumer behavior in green markets, focusing on professional students in Greater Visakhapatnam City. This demographic represents an educated, tech-savvy, and socially conscious segment that can serve as early adopters and change agents in promoting sustainable consumption. An in-depth examination of their environmental awareness, attitudes, and purchasing behavior is essential to inform policymakers, educators, and marketers in designing targeted interventions that facilitate the transition to a greener economy.

Statement of the Problem

The study investigates how demographic, social, and psychological variables influence green product purchase behavior among Gen-Z consumers in Visakhapatnam, a rapidly developing Tier-II city in India, with a focus on bridging the attitude-behavior gap in green marketing.

Objectives of the Study

i. To study the awareness levels of consumers towards green products and services.
ii. To determine the factors affecting purchase behavior of Gen-Z consumers in Green Markets.
iii. To measure the subjective norms impact on the green purchase decisions with reference to TPB and VBN theories.
iv. To justify the selection of Visakhapatnam as a representative Tier-II city based on published reports indicating its urban growth, youth population, and green potential.

Research Hypotheses

To test the factors influencing green purchase behavior, the following hypotheses were formulated and tested:

H_o1: Demographic factors (age, gender, parental income) do not significantly influence green purchase behavior.

H_i1: Demographic factors significantly influence green purchase behavior.

H_o2: Social factors (family influence, peer influence, media) do not significantly impact green purchase behavior.

H_i2: Social factors significantly impact green purchase behavior.

H_o3: Environmental awareness, perceived behavioral control, and personal norms do not significantly influence green purchase behavior.

H_i3: Environmental awareness, perceived behavioral control, and personal norms significantly influence green purchase behavior

H_o4: There is no significant relationship between green purchase intention and actual purchasing behavior.

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H_14: Green purchase intention significantly influences actual purchasing behavior.

Green Purchase Behavior Model

Integrating TPB and VBN Theories into Green Purchase Decisions

Theory of Planned Behavior (TPB): According to TPB, consumer behavior is influenced by attitude, subjective norms, and perceived behavioral control.

The study's findings indicate that subjective norms (social influence) have a significant impact on green purchasing decisions. This suggests that external social pressures, such as peers, influencers, and societal expectations, play a crucial role in shaping Gen-Z consumers' purchasing behaviors. Additionally, personal attitudes and perceived behavioral control remain important determinants, suggesting that consumers are more likely to purchase green products when they align with their values and when sustainable alternatives are easily accessible.

Value-Belief-Norm (VBN) Theory: VBN explains how individuals' personal values, environmental beliefs, and moral obligations influence their behavior.

The results suggest that Gen-Z consumers with stronger environmental awareness and personal responsibility exhibit higher purchase intentions for green products.

The belief that their actions contribute to sustainability (aligned with VBN) strengthens their intention to purchase eco-friendly products, even when external social influences (TPB's subjective norms) are weak.

Synergy Between TPB & VBN in Decision Making:

The Theory of Planned Behavior (TPB) and the Value-Belief-Norm (VBN) theory offer complementary frameworks for understanding Gen-Z's green purchasing behavior. By integrating the Theory of Planned Behavior (TPB) and Value-Belief-Norm (VBN) theory, this study extends the understanding of pro-environmental behaviour in an emerging urban Indian context. These frameworks allow for transferable behavioral insights, despite the geographically bounded setting.

TPB emphasizes that consumer behavior is influenced by attitudes, subjective norms, and perceived behavioral control. According to TPB, individuals are more likely to purchase eco-friendly products when they hold favorable attitudes towards such products, perceive social pressure to engage in sustainable behavior, and believe they have the ability to make those choices (Ajzen, 1991).

In contrast, VBN highlights the significance of personal values, environmental beliefs, and moral obligations in driving behavior. Gen-Z consumers who feel a moral responsibility to protect the environment are intrinsically motivated to engage in sustainable consumption (Stern et al., 1999).

Factors	**Theory of Planned Behavior (TPB)**	**Value-Belief-Norm (VBN) Theory**
Key Influence	Attitudes, subjective norms, perceived control	Personal values, beliefs, moral norms
Motivation Type	Rational decision-making	Ethical/moral obligation
Influence of Social Factors	Moderate (social norms impact behavior)	Low (personal responsibility dominates)
Impact on Green Purchases	Behavior occurs when convenient and feasible	Behavior occurs when aligned with values

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The synergy between these models suggests that Gen-Z consumers place greater emphasis on personal responsibility (VBN) than on external social pressures (TPB), indicating that green purchasing behavior is primarily intrinsic rather than peer-driven. However, social influences still play a significant role in shaping initial behavior. Research indicates that over time, these external social norms can become internalized, transforming into personal moral obligations as described in the VBN framework (Harland, Staats, & Wilke, 1999).

For example, young consumers initially influenced by peers or social media may gradually develop an intrinsic ethical commitment to environmental sustainability. Therefore, subjective norms function not only as direct motivators of behavior (as proposed by TPB) but also as precursors to personal norms (as outlined by VBN), especially among value-forming populations such as Gen Z. This conceptual bridge reinforces the theoretical integration of TPB and VBN, providing a more comprehensive explanation of both social and internal drivers behind green consumer behavior (Nguyen, Lobo, & Greenland, 2020).

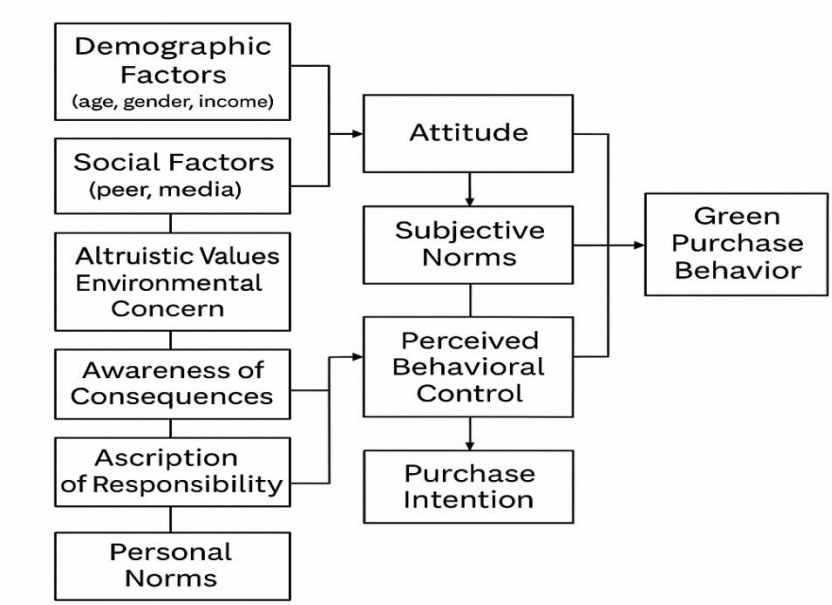

Figure 1: Green Purchase Behaviour Framework

RESEARCH DESIGN AND METHODOLOGY:

Data Collection: The study employs a case-based quantitative research design, focusing on Gen-Z consumers in Visakhapatnam—an emerging Tier-II city in India. Visakhapatnam was selected as a representative Tier-II Indian city due to its rapid urbanization, diverse student population, high digital penetration, and evolving sustainability ecosystem. The behavioral insights derived from this case are likely to resonate with other mid-sized cities undergoing similar demographic and cultural shifts. This design facilitates contextually rich, theory-driven insights using empirical data. The primary data for this study was collected using a convenience sampling method, a non-probability method appropriate for exploratory and behavioral research to enhance the generalizability of findings especially when the target population (professional students in Visakhapatnam) is readily accessible and comparative insights were drawn from published secondary sources on other Tier-II cities, including Surat, Nagpur, and Coimbatore. This approach is justified considering the geographic and demographic focus of the study and the constraints of time and resources. It allowed for quick access to a relevant sample, enabling the timely completion of data collection while still offering valuable insights into green consumer behavior. A structured questionnaire was designed based on key constructs identified from the literature, focusing on consumer awareness, attitudes, social influences, environmental concerns, and purchase behavior related to green products.

To ensure ease of access and broader reach, the questionnaire was digitized using Google Forms and disseminated via institutional email IDs of students enrolled in professional courses such as MBA, M.Com,

and Engineering programs, etc. The online format allowed for efficient distribution and collection of responses while maintaining participant anonymity and confidentiality. A brief introduction and consent statement were included to inform respondents about the purpose of the study and to ensure voluntary participation.

After collection, the data was exported to Microsoft Excel for initial screening and cleaning. Responses were checked for completeness, and any duplicate or incomplete entries were removed to maintain data integrity. Descriptive statistics such as frequency, percentage, mean, and standard deviation were calculated to summarize the demographic and general awareness profiles of the respondents.

To examine the relationships between the independent variables (such as demographic, social, and psychological factors) and the dependent variable (green purchase behavior), multiple regression analysis was employed. This statistical technique was used to identify the most significant predictors influencing green purchasing decisions among Gen Z consumers, thereby helping to test the formulated hypotheses and draw meaningful inferences.

To benchmark Visakhapatnam's consumer behaviour patterns, this study compares it with three Tier-II cities—Nagpur, Surat, and Coimbatore. These cities were selected for their shared socio-demographic characteristics, rapid urban growth, and rising environmental awareness, making them ideal for contextual benchmarking.

Statistical Tests Employed: To test the hypotheses, appropriate statistical techniques were used.

Chi-Square Test for demographic variables revealed significant influence of age ($p = 0.045$) and education level ($p = 0.032$) on green purchase behavior.

ANOVA showed that social factors (family, peers, media) significantly influence behavior ($p < 0.05$).

Multiple Regression Analysis demonstrated that environmental awareness, perceived behavioral control, and personal norms significantly predict green purchase behavior ($p < 0.05$).

Regression Analysis also confirmed that green purchase intention significantly affects actual purchasing behavior ($p < 0.05$).

To ensure the reliability of the instrument, Cronbach's Alpha was calculated for all multi-item scales. The selection of tests was guided by the nature of the variables involved, aligning with standard quantitative analysis protocols.

Content validity was ensured through a pilot test conducted on 30 respondents prior to the main survey. The questionnaire was also reviewed by academic experts in the field of consumer behavior and environmental studies to confirm construct clarity and relevance.

Sample Size:

Total of 179 responses have been received from the students of Visakhapatnam who are between the age group of 15 to 25 years and after validating the data using MS Excel, total of 164 valid responses were collected and analyzed. This sample size is statistically acceptable for behavioral research involving multiple independent variables. According to Cohen's (1988) power analysis, for detecting a medium effect size ($f^2 = 0.15$) at $\alpha = 0.05$ with a power of 0.80 and up to 6 predictors, a minimum sample size of 97 is sufficient. Hence, the current sample exceeds the required threshold, ensuring adequate power for regression analysis and hypothesis testing.

Collection of Data: Data sources include primary and secondary sources.

Primary Sources: the primary sources of information are collected through structured questionnaire. Questionnaires included both open and closed ended questions.

Secondary Sources: the secondary sources include Books, Journals, etc.

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The following are the buying patterns of Gen Z the following key points may be considered:

Digital Natives: Gen Z is highly influenced by online shopping and social media platforms (Smith, 2019; Turner, 2020).

Brand Values: They prioritize brands that align with their values, such as sustainability and social responsibility (Kotler, Kartajaya, & Setiawan, 2021; Kim & Hall, 2020).

Experience Over Products: Gen Z often prefers experiences (like travel and events) over material goods (Pine & Gilmore, 2011; Chatzidakis & Lee, 2022).

Influencer marketing plays a significant role in their purchasing decisions (Schouten, Janssen, & Verspaget,2020; De Veirman, Cauberghe, & Hudders, 2017).

Price Sensitivity: Both groups are price-conscious and often seek discounts or value for money (Sheth, 2021; Gentina, Shrum, & Lowrey, 2018).

Personalization: They favor personalized shopping experiences and tailored marketing messages (Grewal, Roggeveen, & Nordfält, 2017; Lemon & Verhoef, 2016)

Health and Wellness: There is a strong focus on health-conscious products and wellness-oriented brands (S. T. Lin & H. J. Niu, 2018; Dunn, 2020).

Technology Integration: They appreciate brands that incorporate technology, such as AR for virtual try-ons (Javornik, 2016; Poushneh & Vasquez-Parraga, 2017).

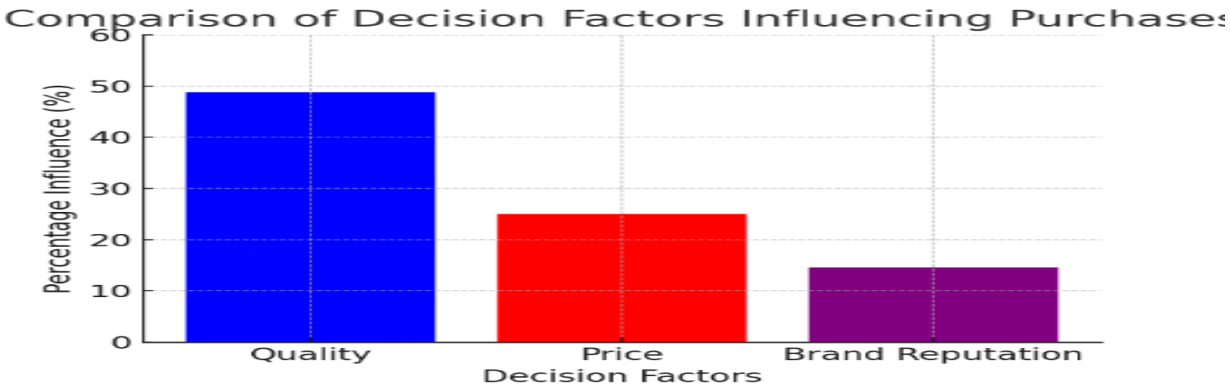
Peer Reviews: User-generated content and peer reviews heavily influence their buying choices (S. T. Lin & H. J. Niu, 2018; Cheung, Luo, Sia, & Chen, 2009)

Fast Fashion vs. Quality: While fast fashion appeals to them, there is a growing trend toward investing in quality and sustainable fashion (Gam, 2011; Joshi & Srivastava, 2019; Khare, Sadachar, & Manchiraju, 2020; Nguyen et al., 2019)

Data Analysis and Interpretation

i) Consumer Purchase Behavior & Preferences

Key Decision Factors: Quality (48.78%), price (25.00%) and brand reputation (14.63%) are considered to be the top priorities in their purchase decisions



Influencers: Personal preferences (42.07 %) and family (41.46 %) have the highest impact on purchases.

Information Sources: Consumers rely on online reviews (51.22%), friends (23.17%), and advertisements (21.34%) while making any purchases.

Decision Timeline: Purchases are mostly made on the spot (35.37%), within a day (25.00%), or within a week (27.44%). This is an indication that consumers are clear about their choices of purchase and are not ambiguous.

Satisfaction & Loyalty: 98% of the respondents are totally satisfied with their choices, and 88.41% are willing to repurchase the same in future.

ii) Green Product Adoption & Sustainability Trends

Eco-Consciousness: 96% of the respondents are willing to buy environmentally safe products. This clearly indicates that consumers are more concerned about environment.

Preferred Categories: Food (39.63%) and home essentials (20.12%) are the main focus for purchases with respect to sustainable choices.

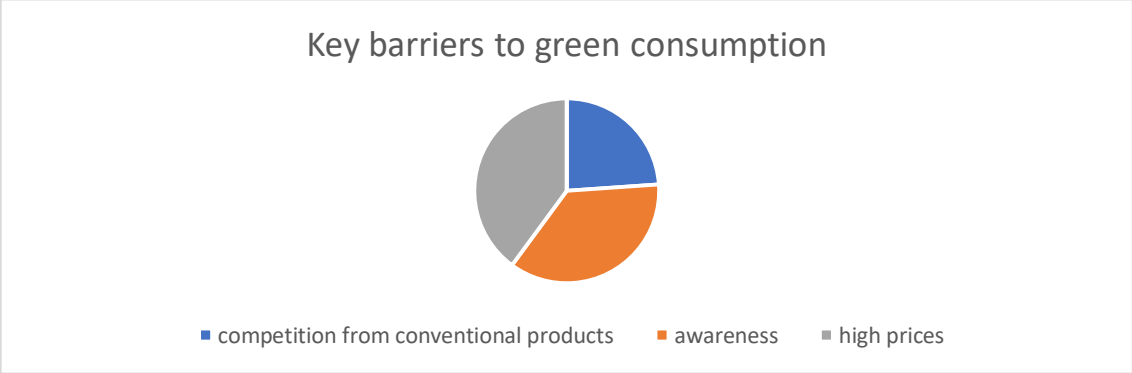
Shift to Green Products: 84.15% strongly believe in the need to transition from conventional products to eco-friendly alternatives. Only 1.22% consider it unnecessary.

iii) Challenges:

High Prices –High prices (33.54%) when compared to Conventional products act as a major deterrent for consumers to go for environmentally friendly products.

Lack of Awareness – lack of proper awareness (30.48%) among consumers is a challenge for green purchases. Consumers need more education on green products and their true perceived benefits. Its availability has to be vividly conveyed to majority of the consumers.

Competition – Conventional products still dominate due to familiarity and budget friendly pricing (20.12%)



iv) Overall Consumer Priorities:

Health & Wellness: The most significant driver of consumer purchase decisions is health and well- being (45.73%)

Sustainability & Quality: Consumers (87.19%) expect environmental responsibility in all product categories.

Research Hypotheses and Testing: To test the factors influencing green purchase behavior, the following hypotheses were formulated and tested:

Hypothesis	Statistical Test	Result	Decision
$H_0 1$	Chi-Square Test	p = 0.045 (Age), 0.032 (Education)	Rejected
$H_1 1$	Chi-Square Test	p = 0.045 (Age), 0.032 (Education)	Accepted

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H_o2	ANOVA	$p < 0.05$	Rejected
$H_1 2$	ANOVA	$p < 0.05$	Accepted
H_o3	Regression Analysis	$p < 0.05$	Rejected
$H_1 3$	Regression Analysis	$p < 0.05$	Accepted
H_o4	Regression Analysis	$p < 0.05$	Rejected
$H_1 4$	Regression Analysis	$p < 0.05$	Accepted

Reliability Testing

To ensure the reliability of the survey instrument, Cronbach's Alpha was used to measure the internal consistency of multi-item constructs.

Construct	**Cronbach's Alpha (α)**	**Reliability**
Environmental Awareness	0.82	Reliable
Perceived Behavioral Control	0.78	Reliable
Purchase Intention	0.85	Highly Reliable
Social Influence	0.69	Acceptable but needs improvement

These values indicate that the survey scales are statistically reliable for measuring consumer attitudes toward green products.

By selecting Visakhapatnam as a contextual microcosm, the study seeks to generate findings that can be generalized or adapted to other similar Tier-II cities undergoing parallel transitions in sustainability awareness and urban growth. Located on the east coast of India, Visakhapatnam is a Smart City that ranks among the top Tier-II urban centres in the country in terms of cleanliness, youth population density, and green infrastructure. It demonstrates a blend of traditional industry and modern education hubs, with a growing eco-conscious Gen-Z consumer segment.

Comparative Indicators Supporting Proxy Positioning

To reinforce its representativeness, Visakhapatnam is benchmarked against three comparable Tier-II cities—Nagpur, Surat, and Coimbatore—based on a set of criteria relevant to green consumer behaviour and urban development.

Criteria	**Why It's Important**	**Visakhapatnam**	**Comparable Tier-II Cities**
Urbanization &Growth	Reflects structured expansion, infra-structure & migration	Ranked 8th among top cities for residential supply growth Prop Equity (2024)	Nagpur – Central India's logistic hub
Youth & Student Demographics	Key driver of Gen-Z behaviour analysis	High concentration of professional colleges (AISHE, 2023)	Coimbatore, Bhopal
Tech Adoption & Digital Literacy	Enables online green product awareness & access	High smartphone & digital media penetration (IAMAI, 2023)	Surat, Mysore

Environmental Performance	Indicates local green initiatives and sustainability awareness	Ranked 4th in Swachh Survekshan 2023 (MoHUA, 2023)	Surat, Nagpur

Key Findings

1. Demographics and Green Purchase Behavior

Age ($p = 0.045$) and Education Level ($p = 0.032$) significantly influence green purchasing behavior. Gen-Z consumers and individuals with higher education levels are more likely to engage in sustainable purchasing.

Gender and parental income did not show a significant impact. Since gender and parental income did not meet the significance threshold, they do not meaningfully influence green purchasing behavior. This suggests that green purchase behavior is independent of gender and parental income, implying that both male and female Gen-Z consumers, regardless of their financial background, show similar attitudes toward eco-friendly products.

Eco-conscious purchasing decisions are often more aligned with personal values, awareness, and perceived control rather than demographic attributes (Amin & Tarun, 2020; Dubey et al., 2024).

2.Social Factors and Green Purchasing

Social influences (family, peers, and media) significantly impact green purchase behavior ($p < 0.05$). This suggests that peer and media influence play a crucial role in shaping sustainability-driven decisions.

3.Psychological and Environmental Factors

Environmental awareness, perceived behavioral control, and personal norms strongly impact green purchasing ($p < 0.05$). This aligns with theory of planned behavior (TPB) and value-belief-norm (VBN) theories, confirming that internal motivations are key drivers of sustainable consumption.

4.Green Purchase Intention and Actual Behavior*:*

A strong positive relationship was found between green purchase intention and actual purchasing behavior ($p < 0.05$). Consumers who express an intention to buy green products are more likely to follow through actual purchases.

Comparison of Factors Influencing Gen-Z's Purchasing Behavior

Factor Type	Key Influences	Impact on Green Purchasing
Demographic Factors	Age, Education Level, Gender, Parental Income	Higher education and younger age groups show a stronger preference for green products. Gender and income have less significant impact.
Psychographic Factors	Environmental Awareness, Personal Norms, Lifestyle Preferences	Strongest influence—Gen-Z prioritizes sustainability and ethical responsibility over external social pressure.
Economic Factors	Price Sensitivity, Perceived Affordability, Availability	High prices and competition from conventional products are major barriers to green consumption.

CONCLUSION

Given its blend of urban growth, youth concentration, digital penetration, and civic environmental performance, Visakhapatnam offers a replicable urban model for understanding Gen-Z behaviour in green

markets. The study investigates the green purchase behavior of Generation-Z consumers in Greater Visakhapatnam City, focusing on demographic, social, and psychological factors that influence sustainable purchasing decisions. The choice of Visakhapatnam was not incidental but strategic. As a leading Tier-II city in India undergoing rapid urban and digital transformation, it reflects the structural and behavioral dynamics of many other mid-sized Indian cities. The insights drawn from Gen-Z consumers here offer a meaningful lens through which broader patterns of sustainable behaviour, value-driven consumption, and youth-led environmental consciousness can be understood and applied across the Indian urban landscape.

Key findings indicate that age and education level significantly impact green purchase behavior, whereas gender and parental income do not show a significant effect. Social influences, particularly family, peers, and media, play a crucial role in shaping purchasing decisions. Furthermore, psychological factors such as environmental awareness, perceived behavioral control, and personal norms strongly drive green purchase intentions and actual behavior.

The study integrates Theory of Planned Behavior (TPB) and Value-Belief-Norm (VBN) Theory, demonstrating that both social and intrinsic motivators contribute to sustainable consumption. While external influences like peer recommendations and media create awareness, personal values and ethical concerns ultimately determine whether a consumer transitions to eco-friendly products.

The study also highlights significant challenges in green product adoption, including higher prices, lack of awareness, and competition from conventional products. However, a strong willingness among consumers to shift to sustainable alternatives suggests opportunities for businesses and policymakers to develop strategies that enhance affordability, improve accessibility, and strengthen consumer trust in eco-friendly products.

The findings, while focused on a specific urban region, reflect broader trends among youth in emerging economies. This has important implications for sustainable consumption education, circular economy policies, and youth-driven behavioral interventions aligned with SDG 12. By situating Visakhapatnam as a strategic lens for examining Gen-Z's green behavior in urban India, this study advances both localized insight and scalable strategies relevant to comparable Tier-II markets.

RECOMMENDATIONS & IMPLICATIONS

Based on these insights, businesses, marketers, and policymakers should:

Enhance Environmental Awareness – Conduct campaigns and educational initiatives to increase awareness of eco-friendly products.

Leverage Social Influence – Utilize influencers, peer networks, and digital marketing to engage Gen-Z consumers.

Make Green Products Affordable – Implement pricing strategies, subsidies, or incentives to encourage adoption.

Strengthen Product Positioning – Emphasize quality, health benefits, and long-term value rather than just sustainability.

Theoretical and Practical Contributions

This study offers several notable contributions to both theory and practice. Theoretically, it integrates two leading behavioral models—TPB and VBN—to provide a more holistic understanding of green consumer behavior, especially among Gen-Z. The synergy of rational and moral motivators within a single framework enables richer insights into intention–behavior alignment. Contextually, the research highlights a geographically novel setting—Greater Visakhapatnam City—representing Tier-II urban markets that are often neglected in sustainability discourse. Practically, the study offers targeted implications for marketers, educators, and policymakers to design campaigns and policies that tap into Gen-Z's moral consciousness, peer influence, and digital engagement. It

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underscores the need for affordable green products, transparent labeling, and the use of digital influencers in shaping sustainable choices.

Key Scope Delimitations, Limitations, and Future Research Directions:

Scope Delimitations

This study was delimited to Gen-Z professional students in Greater Visakhapatnam City. The theoretical scope was confined to the integration of TPB and VBN frameworks, with a focus on green purchase behavior. Other consumer segments, cities, and behavioral theories were intentionally excluded to maintain research depth and focus.

Limitations

Despite the valuable insights generated, the present study is subject to several limitations that should be acknowledged:

Restricted Geographical Scope*:* This study is geographically limited to professional students in Greater Visakhapatnam City, a Tier-II urban center in India. As such, the findings may not be generalizable to other regions within India or to international contexts. Additionally, cultural and socioeconomic factors specific to this urban microcosm may not reflect broader consumer behaviors across the country or in Western markets.

Sampling Methodology Enhancement: Future studies should consider adopting probability sampling techniques, such as stratified or cluster sampling, to enhance representativeness and improve the generalizability of results across diverse Tier-II cities in India. Comparative studies between cities can reveal contextual nuances in green consumer behavior.

Reliance on Self-Reported Data: Data were collected through self-administered questionnaires, which are inherently susceptible to social desirability bias and subjective interpretation. Respondents may have overstated environmentally friendly behaviors or attitudes.

Qualitative Enrichment: The integration of qualitative methods—including focus groups, interviews, or ethnographic observation—could illuminate the deeper psychological, cultural, and contextual drivers influencing sustainable consumption behavior, especially among Gen-Z.

Cross-Sectional Research Design: The study employed a cross-sectional approach, capturing data at a single point in time. As a result, it does not allow for the observation of changes in consumer attitudes or behaviors over time, nor does it permit causal inferences.

Partial Theoretical Coverage: While the integration of the Theory of Planned Behavior (TPB) and Value-Belief-Norm (VBN) theory enhances the explanatory framework, the study does not incorporate other potentially influential models such as the Norm Activation Model (NAM) or Environmental Concern Theory, which could offer additional perspectives.

Gap Between Intention and Actual Behavior: The study primarily focuses on purchase intentions rather than actual consumer behavior. This intention-behavior gap is a recognized limitation in behavioral research, particularly in the context of sustainable consumption.

Neglect of Market-Specific Constraints: External factors such as product availability, affordability, marketing influences, and infrastructural support for green consumption were not explicitly examined. These environmental variables may significantly influence actual purchasing behavior.

Future Research Directions

While this study provides valuable insights into Gen-Z's green purchasing behavior, certain limitations must be acknowledged:

The research methodology relied on self-reported data, which may be subject to social desirability bias or response bias. Future studies could adopt longitudinal or experimental methods to validate these findings and assess behavioral changes over time.

Economic factors, such as pricing, affordability, and financial constraints, were not deeply analyzed. Since cost sensitivity is a major concern for Gen-Z consumers, future research should explore how financial considerations influence sustainable purchasing decisions.

The influence of personal environmental ethics on sustainable consumption behaviors needs to be examined in greater depth to understand the moral and value-based motivations driving green product adoption.

Trust in eco-certifications and sustainability labels is another critical factor that may impact consumer confidence in green products. Investigating the role of certification authenticity and consumer skepticism could provide valuable insights for marketers and policymakers.

A qualitative research approach could be employed to explore the deeper motivations behind Gen-Z's commitment to eco-friendly products. In-depth interviews and focus groups may help uncover psychological and emotional triggers that influence sustainable purchasing behavior.

Future research could extend the current study by conducting cross-regional comparisons within India or by examining generational consumer behavior in international contexts. Comparative studies between Indian and Western Gen-Z consumers may offer deeper insights into how cultural, economic, and regulatory environments influence green purchase behavior.

Future research could enhance explanatory power by employing Structural Equation Modeling (SEM). SEM would allow for a more nuanced exploration of mediating and moderating variables, providing deeper insight into the causal relationships among constructs.

AI Use Disclosure

During the preparation of this work the author(s) used ChatGPT by OpenAI in order to improve the language, structure, and clarity of the manuscript, and to receive guidance on journal selection and submission process. After using this tool/service, the author(s) reviewed and edited the content as needed and take(s) full responsibility for the content of the publication.

REFERENCES

1. Ajzen, I. (1991). The theory of planned behavior. Organizational Behavior and Human Decision Processes, 50(2), 179-211.
2. Stern, P. C. (2000). Toward a coherent theory of environmentally significant behavior. Journal of Social Issues, 56(3), 407-424.
3. UNDP. (2022). Sustainable Development Goals: Goal 12 – Responsible consumption and production. United Nations Development Programme https://www.undp.org/sustainable-development-goals.in
4. Nair, P., & Sudarshan, R. (2024). The influence of social media on eco-friendly consumerism. Marketing & Society Journal, 28(3), 112-130.
5. Amin, S., & Tarun, K. (2020). Environmental awareness and sustainable buying behavior among young consumers. Green Economics Review, 14(2), 87-99.
6. Dubey, D., et al. (2024). Brand trust and green buying intentions in the Indian market. International Journal of Business Sustainability, 21(4), 200-217.
7. Vermillion, L., & Peart, J. (2010). College students' preferences for ethical and sustainable brands. Journal of Business Ethics, 95(2), 211-225.
8. S. T. Lin and H. J. Niu (2018) "Green consumption: Environmental knowledge, environmental consciousness, social norms, and purchasing behaviour," Business Strategy and the Environment, vol. 27, no. 8, pp. 1679-1688.

9. Ilkaite-Vaitone, N., & Skackauskiene, I. (2019). Green marketing orientation: Evolution, conceptualization and potential benefits. Open Economics, 2(1), 71–80.
10. Judijanto, A., et al. (2024). Green Marketing and Consumer Environmental Awareness: A Bibliometric Review. ResearchGate Preprint.
11. Sitorus, S., et al. (2022). The Influence of Green Marketing Strategy on Consumer Awareness. West Science Press Journal.
12. Deshmukh, A., & Tare, S. (2022). Effects of Green Marketing on Consumer Buying Behaviour in India. WSSHS Journal.
13. Machová, R., et al. (2022). Impact of Green Marketing on Consumer Behavior in Palm Oil Product Markets. Sustainability, 14(3), 1364.
14. Ajzen, I. (1991). The theory of planned behavior. Organizational Behavior and Human Decision Processes, 50(2), 179–211.
15. Stern, P. C., Dietz, T., Abel, T., Guagnano, G. A., & Kalof, L. (1999). A value-belief-norm theory of support for social movements: The case of environmentalism. Human Ecology Review, 6(2), 81–97.
16. Harland, P., Staats, H., & Wilke, H. A. M. (1999). Explaining pro-environmental intention and behavior by personal norms and the theory of planned behavior. Journal of Applied Social Psychology, 29(12), 2505–2528.
17. Nguyen, T. N., Lobo, A., & Greenland, S. (2020). Pro-environmental purchase behaviour: The role of consumers' biospheric values, attitudes and advertising skepticism. Journal of Retailing and Consumer Services, 53, 101742.
18. Vishnoi, S. K., Mathur, S., Agarwal, V., Virmani, N., & Jagtap, S. (2025). What drives Generation Z to choose green apparel? Unraveling the impact of environmental knowledge, altruism and perceived innovativeness. International Journal of Sustainable Engineering, 18(1).
19. Internet and Mobile Association of India. (2023). Internet in India Report 2023. IAMAI. https://www.iamai.in
20. Ministry of Education. (2023). All India Survey on Higher Education (AISHE) 2021–22. Government of India. http://aishe.gov.in
21. Ministry of Housing and Urban Affairs. (2023). Swachh Survekshan 2023 Rankings and Report. Government of India. https://swachhsurvekshan.mohua.gov.in
22. PropEquity. (2024). Tier-II Cities Residential Market Trends 2023–2024. PropEquity Analytics. https://www.propequity.in