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GENX TO GENZ: CORRELATION BETWEEN GREEN ADVERTISING EFFECTIVENESS AND CONSUMER BEHAVIOURAL TRANSFORMATION ACROSS THREE GENERATIONS

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ABSTRACT

In the ongoing discourse on climate change and ecological imbalances, the urgency to protect the environment has never been greater. Green advertising has been used as a communication strategy for promoting environmental awareness and persuading the consumers to adopt eco friendly actions. The study, "Gen X to Gen Z: Correlation Between Green Advertising Effectiveness and Consumer Behavioural Transformation Across Three Generations," examines the relationship between green advertising effectiveness and pro-environmental behaviour, with a specific focus on generational differences among Generation X, Millennials and Generation Z. The pilot study adopts quantitative research design, data were collected from 103 respondents through a structured questionnaire measuring environmental awareness, perceptions of green advertising, trust in environmental claims and self-reported behavioural responses. Descriptive statistics, correlation analysis, ANOVA and post hoc comparisons were employed to examine generational variations and behavioural outcomes. Results indicate green advertising substantially enhance awareness of eco friendly products and environmental impacts but the direct influence on actual behaviour remains weak. The findings therefore suggest an attitude behaviour gap persists across all three generations. There were significant differences across generations in terms of environmental knowledge. With respect to perceptions of green advertising, such as trust in environmental claims, perceived corporate sincerity or responses to creative or informational elements no major generational differences were detected. Scientific evidence and socially meaningful messages were perceived as more persuasive compared to celebrity endorsements. The study comes to the conclusion that although green advertising contributes to raising awareness, it is not enough to cause behavioural change. To significantly impact sustainable behaviour, effective environmental communication must place a high priority on credibility, transparency and generationally sensitive tactics.

KEYWORDS : Green Advertising Effectiveness, Consumer Behavioural Transformation, Generational Differences, Attitude- Behavioural Gap

1. INTRODUCTION

Advertising has always been at the forefront of a public campaign's ability to define an audience's understanding and behavior around a particular topic, whether it be health, politics, social justice, or culture (KWK, 2020) (H, *Consumer Behaviour and Environmental Sustainability in Tourism and Hospitality: A Review of Theories, Concepts, and Latest Research*, 2021). Recently, with the increasing crises around the environment, advertising has been seen as a communicator of sustainability (Calculli C, 2021). The United Nations Environment Programme has found and reported that around 7 million people die prematurely every year due to air pollution (Gunarathne ADN, 2020). The increased focus on air pollution increases the need to educate people on the importance of sustainable consumption and increased ecological responsibility to make a change. As businesses begin to adopt more sustainable practices, advertising that communicates the sustainability and environmental focus of business practices, product/service offerings, or business practices has become an effective means of influencing and creating a positive vision and public perception of environmental responsibility (Boztepe, 2012) (Chekima B C. S., 2016a).

1.1. *The Evolution of Advertising and Its Influence on Generational Behaviour*

Beginning with print ads in newspapers, advertising changed with radio and TV. As each new advertising medium was developed, each generated new advertising techniques (Alevizou PJ, 2015) (Boztepe, 2012). With each new technique, each generation responded differently. Advertising has developed with great technological and cultural change. Each of the new advertising techniques changed the way each generation responded to advertising. Each new advertising method developed new methods of persuasion. Generation X grew up in the era of mass media developing trust in expert driven, rational and informational advertisements. Millennials witnessed the rise of digital platforms and social media, authenticity, emotional storytelling and purpose driven branding becomes the factors persuading them (He Z, 2021) (Joshi Y, 2015). Generation Z, the first fully digital native generation interacts with personalised, algorithm-driven content and are more responsive to interactive and participatory communication formats, such as influencer campaigns and gamified sustainability messages. (Cao Y, 2022) (Chwialkowska A, 2020) Through these shifts, advertising has progressively moved from simple product promotion to shaping

lifestyles, values, aspirations and social norms (Koon O, 2020) (H, 2021). In today's context, sustainability forms a central value around which contemporary advertising is redefining consumer culture, especially among younger generations who view climate action as integral to personal identity (Alzubaidi H, 2021)

1.2. *Green Advertising: Definition, Strategies and Rising Importance*

Green advertising is defined as communication that promotes eco-friendly products, sustainable behaviours, or corporate environmental initiatives (Caniëls MCJ, 2021) (Banerjee, 1993) Green advertisements strategically uses eco labels, sustainability claims, symbolic imagery, scientific evidence and emotional storytelling to persuade consumers (Chekima B W. S., 2016b) (Alevizou PJ, 2015). These message rely on credibility, emotion and logic crating a persuasive framework that appeals to both rational and emotional aspects of decision making (Boztepe, 2012) With rising environmental consciousness, most commonly among Millennials and Generation Z green advertising is one of the important tool for encouraging sustainable lifestyles and promoting environmentally responsible brands (H, *Consumer behaviour and environmental sustainability in tourism and hospitality: a review of theories, concepts, and latest research*, 2021). Brands align their goals and with SDGs to create trust among the consumers, build accountability, reduce environmental harm and inspire eco-conscious consumer choices (Alzubaidi H, 2021). The effectiveness of these claims depends on these claims depends on the perceived authenticity, green washing significantly undermines the credibility and impact of environmental communication.

1.3. *Sustainability, Consumer Activism and Generational Differences*

With the rise in environmental concerns the consumers, particularly the young consumers have become cautious with their actions and finding measure to overcome this critical issue, they have become vocal in demanding sustainable practices. They have advocated for change through consumer activism, boycotts, online campaigns and social media advocacy. The companies respond when the consumers demand for change. This has strengthened the call for ethical, environmentally responsible brands (Kumar A, 2023) (Hynes N, 2016). The generational differences significantly influence how sustainability messages are interpreted:

According to (Jonell M, 2016) (Gunarathne ADN, 2020) the perception on environmental messages differs among the age groups. Generation X are

sceptical about environmental claims and get convinced by rational appeal than the emotional appeal. They look for recognised certifications and trust worthy data. Millennials support brands with a clear purpose. They get persuaded emotional storytelling and inspiring messages. Many of them are willing to pay more for sustainable options. (Chekima B C. S., 2016a) (He Z, 2021). The most environmentally aware group is seen as the Generation Z, they give importance to honesty and transparency. They are quick to reject brand they feel are misleading or engaging in greenwashing (Cao Y, 2022) (Ejelöv E, 2022). They engage better with interactive campaigns and participatory initiative.

1.4. The Persistent Attitude–Behaviour Gap

Global surveys reveal that many customers care about the environment and favour sustainable products, yet these intentions rarely lead to regular purchase or lifestyle patterns (Ejelöv E, 2022). This is commonly referred to as Attitude Behaviour Gap, this is a persistent challenge in sustainability communication (Caniëls MCJ, 2021) (Ejelöv E, 2022). Factors contributing to this divergence includes high cost of sustainable products making them less practical choices in decision making. Consumers prioritise convenience and established habits rather than adopting new behaviour. People find it increasingly difficult to identify truly sustainable options due to misleading environmental claims and being bombarded with an overwhelming number of environmental crises and instances of greenwashing on a regular basis. This results in a deep and specific concern for the environment, going hand in hand with apathy, learned from repeated, unaddressed corporate messaging that suggests an earth-friendly message. Distrust toward environmental messaging, due to repeated greenwashing, remains even for those who care. Differences between generations shape this apathy and concern for the environment. Members of Generation X (Gen X) may be reluctant to change their behaviours without an evident reason; Millennials tend to want to behave sustainably but may be restrained by circumstances; Generation Z (Gen Z) may have a high level of awareness, but the lack of accessible and affordable sustainable choices frustrates them the most (Alzubaidi H, 2021) (Gunarathne ADN, 2020). There is no doubt that the barriers specific to each generation need to be understood in order to evaluate the actual potential of green advertising in influencing behaviours.

While numerous studies examine green marketing and sustainable communication, few compare multiple cohorts across the same analytical

framework. Most research examines one demographic or one product category, thus leaving a sizable gap in understanding the collective response of different cohorts to green advertising (Alevizou PJ, 2015) (Caniëls MCJ, 2021). To explicate differences across Generation X, Millennials, and Generation Z in relation to media exposure, knowledge and use of persuasion, technology, and environmental concerns, an intergenerational framework is warranted to comprehensively evaluate whether green advertising transcends awareness and intention to induce substantive and enduring behavioural change.

Impacct is a study titled “Gen X to Gen Z: Correlation Between Green Advertising Effectiveness and Consumer Behavioural Transformation Across Three Generations,” which systematically investigates the impact of environmental communication on the perception, trust, and behaviour of consumers across three of the encompassing generational cohorts. The study captures the generational patterns and the different motivating factors, which contribute toward formulating sustainable communication strategies that are credible and responsive to different generations.

2. RESEARCH METHOD

The purpose of this pilot study is to evaluate consumer awareness and perception of green advertising and its influence on eco-friendly behaviour to determine its impact; this study also focuses on the analysis of the different generations in relation to these objectives. A participant sample of 103 was selected.

This study focuses on the assessment of the influence of green advertising on eco-friendly behaviour and consumer awareness and perception of the same and also examines the differences across the generations with regard to the stated objectives. The purposive sampling method was used to study respondents who possess knowledge and/or interest in green advertising and sustainability practices. This method of sampling is effective and relevant to the researcher’s objectives. The sampling criteria were the age brackets of Gen Z (18–28 years), Millennials (29–44 years), and Gen X (45–60 years) (Maheria, 2024). Gender representation was included in the sample in order to analyse the differences in attitudes and perceptions toward green advertising. The sample included respondents of varying socioeconomic status, education, and income levels. The participants were also selected to gather rural and urban respondents in order to investigate the different attitudes and perceptions toward green

advertising, socioeconomic status, and environmental concerns.

The survey was developed to assess knowledge of green advertising, the effects of green brands, obstacles to sustainable practices, and consumers' perceptions and behaviours. Participants expressed their agreement using a five-point Likert scale from strongly disagree (1) to strongly agree (5). To achieve a range of demographics, data collection was performed both online and offline. Descriptive statistics from the demographic data and response trends were used to summarize the data, which were analyzed using SPSS software. While inferential

analyses used ANOVA and independent t-tests to determine differences within demographic categories, Pearson's correlation coefficient was used to determine the relationship between perceived advertisement credibility, concern for the environment, and reported eco-friendly behaviours. This approach is aimed at understanding how green advertising affects different consumer segments and identifying the factors that contribute to sustainable consumption behaviour.

3. RESULTS

Table 1: Demographic data

		Frequency	Percent
Age	18 - 28	29	28.4
	29 - 44	44	43.1
	45 - 60	29	28.4
Gender	Female	60	58.8
	Male	41	40.2
	Non-binary	1	1
Educational Qualification	Less than a high School	5	4.9
	High School/ PUC	8	7.8
	Bachelor's Degree	37	36.3
	Master's Degree	42	41.2
	Doctorate	10	9.8
Occupation	Employed (Private/ Government)	47	46.1
	Home makers	9	8.8
	Professionals (Doctor/ Engineer)	14	13.7
	Self employed	10	9.8
	Student	18	17.7
	Others	4	3.92
Household Monthly Income (in Rupees)	Less than 20,000	18	17.6
	20,001 - 40,000	16	15.7
	40,001 - 80,000	34	33.3
	80,001 - 1,60,00	19	18.6
	1,60,001 and above	15	14.7
medium frequently watch advertisements	Print Media	21	20.6
	Electronic Media	41	40.2
	Digital Media	84	82.4
	Outdoor Advertising	27	26.5

The largest share of respondents fell within the age cohort of 29 to 44 years (43.1%), followed by 18 to 28 years (28.4%) and 45 to 60 years (28.4%). With regard to sex, there were relatively more females (58.8%) than males (40.2%). Concerning level of education, the respondents were predominantly master's (41.2%) and bachelor's degree holders (36.3%). About half (46.1%) were working in the private or

government sectors, while 17.7% were students and 13.7% were employees. One-third (33.3%) fell in the household income bracket of ₹40,001 to ₹80,000. Concerning media habits, the most used channel to watch ads was digital media (82.4%), followed by electronic media (40.2%), outdoor ads (26.5%), and print media (20.6%).

Table 2: Awareness on green advertisement

Awareness on Green Advertising	Not at all familiar	Slightly familiar	Moderately familiar	Very familiar	Extremely familiar
Familiarity with green advertisements	4 (3.9%)	29 (28.4%)	45 (44.1%)	22 (21.6%)	2 (2.0%)
Frequency of Watching Green Advertisements	Rarely	Sometimes	Often	—	—
Response	32 (32.7%)	45 (45.9%)	21 (21.4%)	—	—
Increased Awareness on Eco-friendly Products	Disagree	Neutral	Agree	Strongly agree	—
Response	9 (9.2%)	28 (28.6%)	56 (57.1%)	5 (5.1%)	—
Response	3 (3.1%)	17 (17.3%)	68 (69.4%)	10 (10.2%)	—

44.1% of the respondents were familiar with green ads, while 28.4% were slightly familiar and 21.6% were very familiar. 3.9% were quite familiar. As for exposure, 45.9% sometimes saw green ads, 32.7% did so very rarely, while 21.4% did so often. More than half (57.1%) thought that green ads raised their

awareness of eco-friendly products, while 28.6% were neutral and 9.2% disagreed. In the same light, 69.4% agreed and 10.2% strongly agreed that green ads, despite some respondents being indifferent to the awareness of the ads, increased awareness of environmental issues.

Table 3: Perception on green advertisement

Perception	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Trust in green ad claims	6 (5.9%)	12 (11.8%)	45 (44.1%)	39 (38.2%)	–
Companies show genuine concern	5 (4.9%)	36 (35.3%)	44 (43.1%)	17 (16.7%)	–
Ads influenced trust	5 (4.9%)	11 (10.8%)	49 (48.0%)	34 (33.3%)	3 (2.9%)
Aspects of Green Advertisements	Not Influential	Slightly Influential	Moderately Influential	Very Influential	Extremely Influential
Brand name	27 (26.5%)	31 (30.4%)	30 (29.4%)	10 (9.8%)	4 (3.9%)
Social message	10 (9.8%)	26 (25.5%)	30 (29.4%)	30 (29.4%)	6 (5.9%)
Scientific claims/ certification	6 (5.9%)	17 (16.7%)	33 (32.4%)	28 (27.5%)	18 (17.6%)
Celebrity endorsement	52 (51.0%)	22 (21.6%)	20 (19.6%)	5 (4.9%)	3 (2.9%)
Strong visuals	7 (6.9%)	26 (25.5%)	25 (24.5%)	32 (31.4%)	12 (11.8%)
Creative Aspects of Green Advertisements	Not appealing	Slightly appealing	Moderately appealing	Very appealing	Extremely appealing
Visuals and design	8 (7.8%)	28 (27.5%)	46 (45.1%)	–	20 (19.6%)
Slogans / taglines	19 (18.6%)	27 (26.5%)	38 (37.3%)	–	18 (17.6%)
Storytelling and narrative	5 (4.9%)	22 (21.6%)	41 (40.2%)	34 (33.3%)	–

Most participants showed moderate to high confidence in green marketing. Belief in green marketing claims made 44.1% neutral, 38.2% positive, and a small percentage negative. When asked if they believed companies had a true concern for the environment, about 43.1% were neutral and 35.3% negative. Regarding trust, the influence of advertisements had a mixed response: 48% remained neutral, 33.3% positive, and very few, only 2.9%, strongly positive.

On the role of green advertisement components in trust, recognition of the brand, social claims, and scientific claims were noticeably influential. For recognition of the brand, responses were mostly spread across moderate (29.4%) and slight influence (30.4%). Social claims were influential; 29.4% each rated them as moderate and very influential. Scientific claims and certifications were rated as

having moderate influence and very influential, at 32.4% and 27.5%, respectively. Celebrity endorsement was seen as influential by 51.0% negative responses. With 31.4% rating very influential and 24.5% moderate, strong visual impact was balanced.

Participants were influenced by highlights in the advertising content, including visuals, design, slogans, and stories. Of the 155 respondents, 45.1% rated the visual and design components as moderately appealing, while 27.5% viewed them as slightly appealing. Slogans and taglines were rated similarly; 37.3% viewed them as moderately appealing, and 26.5% viewed them as slightly appealing. Story components had the most positive impact, with 40.2% viewing them as moderately appealing and 33.3% viewing them as very appealing and having the most positive impact.

Table 4: Behaviour on green advertisement

Behaviour	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Sustainability important in purchase	1 (1.0%)	6 (5.9%)	25 (24.5%)	58 (56.9%)	12 (11.8%)
Purchased due to green ads	15 (14.7%)	23 (22.5%)	45 (44.1%)	19 (18.6%)	–
Ads influenced attitude	5 (4.9%)	17 (16.7%)	40 (39.2%)	36 (35.3%)	4 (3.9%)
Eco-friendly Shopping Habits	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Consider brands only with eco-label and certification	7 (6.9%)	23 (22.5%)	43 (42.2%)	25 (24.5%)	4 (3.9%)
Willing to pay more for a product which is eco-friendly	7 (6.9%)	25 (24.5%)	33 (32.4%)	32 (31.4%)	5 (4.9%)
Check product labels and certification	6 (5.9%)	13 (12.7%)	32 (31.4%)	44 (43.1%)	7 (6.9%)
Consider brand’s sustainability effort before making a purchase	5 (4.9%)	18 (17.6%)	35 (34.3%)	37 (36.3%)	7 (6.9%)
Reasons for Adopting Eco-friendly Practices	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Social influence or peer pressure	14 (13.7%)	35 (34.3%)	30 (29.4%)	21 (20.6%)	2 (2.0%)
Wanting to stand out as early adopters	6 (5.9%)	38 (37.3%)	31 (30.4%)	25 (24.5%)	2 (2.0%)
Sense of pride and fulfilment of doing good towards society	3 (2.9%)	11 (10.8%)	18 (17.6%)	55 (53.9%)	15 (14.7%)
It is a symbol of status and sophistication	24 (23.5%)	27 (26.5%)	31 (30.4%)	17 (16.7%)	3 (2.9%)

Being eco-conscious can be cost-effective	8 (7.8%)	22 (21.6%)	35 (34.3%)	29 (28.4%)	8 (7.8%)
Encouraged friends and family to adopt sustainable practices	Never	Rarely	Sometimes	Often	Always
	3 (2.9%)	20 (19.6%)	35 (34.3%)	28 (27.5%)	16 (15.7%)

Nearly 69% of respondents agreed that the sustainability of the advertising content motivated their purchasing decisions. A smaller percentage of respondents purchased products as a direct result of green advertising; 44% were neutral, and 37% disagreed. In their attitudes toward green advertising, respondents were split, with 39.2% neutral and 39.2% agreeing, indicating a moderate impact of green advertising.

Although consumers demonstrated caution with eco-friendly attitudes, there was a positive attitude change. Half the respondents were neutral about purchasing products from brands with an eco-label, while nearly 28% agreed to purchasing from eco-labeled brands. One-third of respondents agreed to spending more on eco-friendly products, while 31.4% were neutral. Eco-friendly purchasing behaviour was demonstrated by nearly 50% checking eco-friendly labels and certifications often. Considering a brand's sustainability also demonstrated a positive attitude

change, with 43% agreeing and only 22.5% disagreeing.

Social influence appeared minimal, as most participants neither agreed nor expressed any positive sentiment. Similarly, standing out as early adopters also showed minimal agreement, as this was not a motivating factor for most. However, a strong sense of pride and fulfilment emerged as the single most motivating factor, with 69% agreeing this was a motivator. Status symbolism showed negligible effect, as most participants disagreed. Cost-effectiveness was moderately accepted, with 36% agreeing and 34% remaining neutral.

Participants showed moderate encouragement of sustainable practices among their peers. Only a few indicated "never"; almost one-third did so sometimes, while about 43% claimed to do so often or always. This shows a not very strong positive behaviour change through peers.

Table 5: Correlation between effectiveness and behaviour

Effectiveness	Behaviour	
	r value	.063
	p value	.527
N		102

There was a very weak positive correlation ($r = 0.063$) between perceived effectiveness of green advertising and consumer behaviour. Yet this

relationship was statistically insignificant ($p = 0.527$), showing that effectiveness did not meaningfully affect or predict behaviour.

Table 6: Comparison of awareness based on age

Age	N	Mean(awareness)	Std. Deviation	F value	p value
18-28 years	29	12.172	1.814	5.5995	0.003
29-44 years	44	13.295	1.812		
45 -60 years	29	13.897	2.209		

Cross-age group differences in mean knowledge scores were statistically significant ($p = 0.003$). The 45 to 60 age group recorded the highest mean knowledge score (13.90 ± 2.21) compared to those in

the 29 to 44 group (13.30 ± 1.81). The group that scored the least was 18 to 28 years (12.17 ± 1.81). The difference was statistically significant ($F = 5.60, p = 0.003$).

Table:

(I) age		Mean Difference (I-J)	Std. Error	P value	95% Confidence Interval	
					Lower Bound	Upper Bound
18-28 years	29-44 years	-1.12304	.46239	.051	-2.2491	.0030
	45 -60 years	-1.72414*	.50768	.003	-2.9605	-.4878
29-44 years	45 -60 years	-.60110	.46239	.590	-1.7272	.5250

Knowledge scores varied significantly across age groups ($p < 0.05$). The mean knowledge score of those aged 45 to 60 years was significantly greater than that of those aged 18 to 28 years (mean difference = $-1.72, p = 0.003$). On the contrary, the score difference for the 18 to 28 group and the 29 to 44 group (mean

difference = $-1.12, p = 0.051$), as well as for the 29 to 44 and 45 to 60 years groups (mean difference = $-0.60, p = 0.590$), was statistically insignificant.

Table 7: Comparison of perception based on age

	Age	Mean(Perception)	Std. Deviation	F value	p value
Trust in green ad claims	18-28 years	3.034	0.944	0.612	0.544
	29-44 years	3.250	0.781		
	45 -60 years	3.103	0.860		
Companies show genuine concern	18-28 years	2.793	0.902	0.952	0.389
	29-44 years	2.591	0.726		
	45 -60 years	2.828	0.805		
Ads influenced trust	18-28 years	3.069	0.884	0.577	0.563
	29-44 years	3.182	0.815		
	45 -60 years	3.310	0.891		
Aspects of Green Advertisements	18-28 years	12.897	3.488	0.825	0.441
	29-44 years	13.864	4.027		
	45 -60 years	14.172	4.392		
Creative Aspects of Green Advertisements	18-28 years	9.172	2.285	0.067	0.936
	29-44 years	8.909	2.916		
	45 -60 years	9.069	3.945		

Green advertisement aspects include brand name, social message, scientific proof, certification, celebrity endorsements, and strong visuals. Creative aspects include visuals and design, a strong slogan, and a compelling narrative.

All p-values being above 0.05 indicate that age has no influence on trust toward green advertisements, perceptions of concern toward companies, the impact of advertisements on trust, and perceptions of the elements and creative strategies of green advertisements.

4. DISCUSSION

The first objective of the study was to investigate the association between perceived green advertising effectiveness and consumer behavioural change across the three generations (Gen Z- 18–28 years, Millennials -29–44 years, and Gen X- 45–60 years). Contrary to expectations that increased effectiveness of green advertising would relate to stronger pro-environmental behaviour, this research found only a very weak, non-significant positive correlation between perceived effectiveness and behaviour ($r = 0.063$, $p = 0.527$). This suggests that, across generations, it is not the case that merely perceiving green advertisements as effective will naturally translate into consistent eco-friendly purchasing or lifestyle practices. A similar gap between concern, favourable attitudes and actual purchase behaviour has been reported in green consumer studies, especially within the context of younger generations, where environmentally conscious Gen Y and Gen Z consumers often fail to convert their stated values into continued green purchasing (Dr. A. Bhavana, 2018). This supports the existence of an attitude-behaviour or intention-behaviour gap in green consumption that persists even in a context in which consumers report high levels of exposure to and perceived influence of green advertising.

A second objective of the study was to assess generational differences in awareness of green advertising and environmental knowledge. Most of the respondents reported that they were reasonably familiar. A large portion of them indicated that they were moderately familiar nada notable share being familiar with green advertisements. There was substantial exposure to green advertisements with nearly half of them stating they sometimes watched green advertisements and about a smaller but a meaningful group saying they see it often. A clear majority agreed that green advertisements increase their knowledge of eco-friendly products and larger segment felt that these type of advertisements enhances their understanding on environmental impacts. These findings mirror the work of (Ratneswary Rasiah, 2023) environmental knowledge and perceived value shape the purchase intention and pro environmental behaviour among the young consumers. The current findings also highlight that awareness alone does not drive a strong behavioural change.

It is here that generational analysis provides further nuance. Generational differences add further depth to this. Knowledge levels differed significantly across age groups with Gen X (45–60 years) showing the strongest understanding followed by Millennials (29–44 years), and Gen Z (18–28 years) with the lowest knowledge. This pattern is suggestive of older generations in this sample having accumulated more environmental knowledge over time-possibly as a result of longer exposure to policy debates, environmental campaigns, and life experiences-while the younger consumers, though digitally immersed, may end up with more fragmented or superficial knowledge. Similarly, studies focusing on the role of age and green behaviour stress that while older adults can be more environmentally concerned or more consistent in certain green practices, even

younger cohorts turn out to be more open to innovation and sustainable lifestyles. (Kaushik, 2021). Yet, at the same time, pan-generation research suggests that perceptions and behaviours related to sustainability result not only from age but also from

personality traits and psychosocial factors, therefore arguing for a more complex interplay than age alone could explain. (Soumya Singh, 2021).

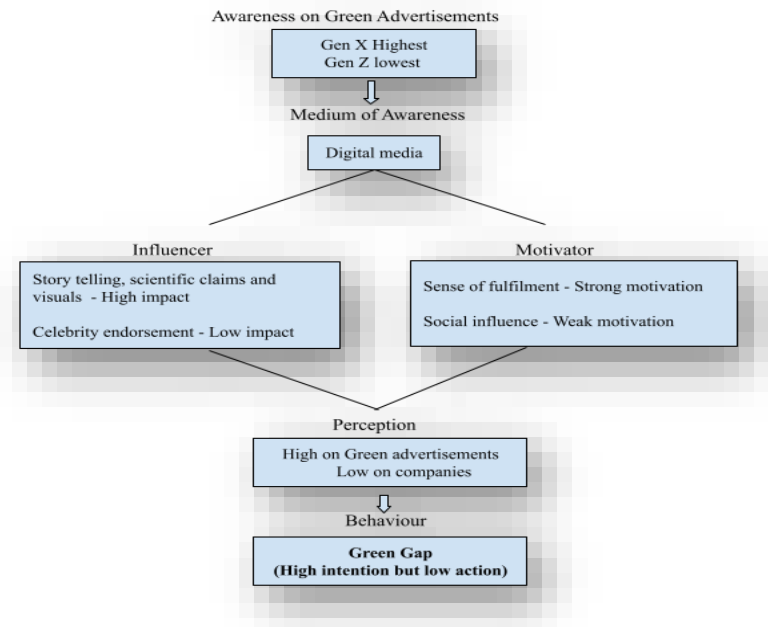


Figure:

Interestingly, despite these knowledge differences, perceptions of green advertisements did not significantly vary by age. Across the three generations, trust in green ad claims, perceptions of companies' genuine concern, the extent to which ads influenced trust, and evaluation of both functional (brand name, social message, scientific claims) and creative (visuals, slogan, storytelling) aspects of green ads did not differ significantly (all $p > 0.05$). This convergence shows that Gen Z, millennials and Gen X see the same levels of green advertisements and respond to its cues in similar ways. (Squire, 2019) has shown that each generation "wear different shades of green" and may differ in the extent to which their green values may turn into real purchases. The findings reveal that in an increasingly digital platform, the generational difference in how advertisements are perceived may be narrowing down even though the knowledge level and the life stage constraints still differ.

Results on perception of green advertisements revealed that the respondents were cautious. Many were unsure about trusting the green advertising claims a good number said they trust the claims, only a minority expressed distrust. When asked whether the company truly care about environment, hesitation was stronger and a noticeable group expressed scepticism of corporate motives. A similar pattern appeared on the role of advertisements in

influencing trust, only small groups felt the green advertisements actually make them trust a brand more, whereas others remained neutral. This mixed response echoes findings from research (Angeline Fernando, 2014) which has reported a high incidence of greenwashing, vague environmental claims, and lack of credible certification. When audiences perceive that claims are exaggerated or insufficiently substantiated, trust is likely to be weakened both in the advertisement as well as in the brand, and this could be a reason why perceived ad effectiveness does not strongly correlate with behavioural transformation in this study.

Regarding message elements, participants across generations showed greater sensitivity to substantive and socially meaningful cues than to surface-level ones. Social messages and scientific claims or certifications were the most persuasive elements of green ads, as the majority rated them moderately to very influential, while celebrity endorsements were generally seen as "not influential" (51.0%). Furthermore, strong visuals, narratives, and storytelling were perceived as generally appealing and engaging, as the greatest proportion rated these features as moderately or very appealing. These findings complement the existing evidence that good green advertising needs to mix persuasive emotional storytelling with credible and information-rich content in order to impact attitudes and intentions.

(Peng Su, 2024). The results also show the audiences across Gen X, millennials and Gen Z evaluate green messages by looking for its authenticity, clear evidence and relevance over celebrity appeal. The behavioural findings reveal both progress and noticeable gap. A large majority agreed or strongly agreed that sustainability matter to them when they make purchase decision which shows a strong pro-environmental orientation. But it's only a minority reported purchasing the products in response to green advertisements. A similar pattern was observed. A similar pattern was observed when asked whether green advertisements changed their attitude, response was split into being neutral and agree. Eco friendly habits were visible but people were cautious and checked label, certifications and also considered the brand's suitability efforts before purchasing. Willingness to pay more for eco-friendly products was moderate as many remained undivided with only a small portion agreeing to spend extra for eco-friendly products. These results are in tune with previous work that recognizes green knowledge, perceived value, and green trust as key drivers of purchase intention and pro-environmental behaviour; where knowledge is partial and trust fragile, intentions may not fully translate into consistent behavioural change (Ratneswary Rasiah, 2023)

Motivational patterns provide further insight into the psychosocial drivers of behavioural transformation across generations. Social influence and the desire to be perceived as "early movers" were relatively weak drivers, as most responses showed disagreement or a neutral attitude. In contrast, pride and fulfilment in terms of "doing good" proved to be the most important reason for undertaking eco-friendly habits, as almost 70% agreed or strongly agreed to this statement.

Price rationality is still a somewhat influencing factor, meaning economic rationality has some relevance today, even if it is not the dominating one. These findings align with the body of literature on green marketing, which argues that, in the presence of low or even unclear social pressure, personal values and the moral satisfaction from eco-centric behaviour are robust motivators of such behaviour (Soumya Singh, 2021). The self-reported behaviour of many participants who said that they encouraged, at least "sometimes," their friends and family to practice sustainable behaviour demonstrates some evidence of social diffusion of pro-environment behaviour, even if peer-based social change is still weak.

The complexity of this process is revealed by the weak correlation between the perception of ad

effectiveness and subsequent behaviour, the inter-generational gap in knowledge of ads, and the greater prevalence of self-endorsed ethical considerations over externally imposed ethical considerations. There is a clear need to better understand how behaviour can be modified in ways not solely dependent on advertising. (Dr. A. Bhavana, 2018) suggests the impact of green advertising on consumers, like the rest of the green gaps literature, will be less than hoped for due to a range of external variables: price, access to green alternatives, quality (or perceived quality), and other situational barriers (e.g., availability of certified products). In all three generational cohorts of the study, external factors, e.g., trust, perceived authenticity of claims, and alignment of personal values with the brand purpose, are critical.

5. CONCLUSION

This study elucidates the attitude-behaviour gap in green consumption, particularly highlighting that efficiency perceptions of green advertising do not translate into eco-friendly purchasing or lifestyle habits across the demographic spectrum. While exposure and awareness levels of green advertising do not trigger any pro-environmental behavioural changes spanning respondents of all generations, a high number of Gen Z, Millennials, and Gen X report positive responses toward eco-friendly advertising. Weak behavioural changes that do not correlate with perceived effectiveness of advertisements may indicate that trust in advertising, authenticity, availability and pricing, as well as structural barriers, severely limit consumers from acting on their environmental concerns. There are differing levels of environmental awareness across generations, with Generation X scoring the highest, then the Millennials, and finally Generation Z. This may result from differing life experiences and differing exposure to environmental issues discourse. However, the perception of green advertisements did not differ across generations. All age groups responded to green advertisements in the same manner, even though knowledge levels differ. This suggests that for green marketing to be effective, structural and motivational factors that cause individuals to gap between their attitudes and behaviours must be focused on more than creating awareness.

Furthermore, the study demonstrated that trust and authenticity are the keys. Green advertising has little to no impact on environmental attitudes and behaviours when corporate skepticism and greenwashing are present. While emotional narratives, scientific facts, and certifications are the

most persuasive and effective, celebrity endorsement is not. All generations in society value authenticity and relevance in green communications. Eco-friendly behaviour is motivated more by personal values than by social pressure and moral satisfaction, again reinforcing campaign-financed motivation, personal objectives, and life-stage balance as these factors.

In summary, green advertising on its own cannot produce substantial changes in behavior. For green advertising to be effective, it must build trust, make credible and concrete claims, eliminate structural barriers, and frame messages based on different generations' motivational patterns. If behavioral change is to occur, the advertising world needs to enact advertising in conjunction with substantial societal, economic, and psychological frameworks. This is particularly elusive in advertising that possesses a high degree of social responsibility. Targeted advertising has proven to be effective in the drastically different world of responsible capitalism.

The limitations of this study need to be considered when interpreting its findings. Self-reported behavior is less reliable than observed purchases. This limitation is likely to inflate the appearance of sustainable practices and deflate the intention-behavior gap. The cultural and geographical context of this study results in a focus on three generations, potentially limiting the generalizability of the findings to other countries. Income, education, and personal values, which can influence sustainable behavior, were not examined in detail.

The statement entails that for effective green advertising to foster behavioural change across multiple generations, advocacy needs to work on reinforcing targeted trust, advocacy, and explanation and specificity of descriptions and claims, eliminating structural barriers to green options, and providing supportive messaging based on the unique motivational and life-stage realities of the various generational cohorts.

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