



Role of digital platforms in creating environmental awareness among generation z

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ABSTRACT

The growing environmental challenges faced globally have highlighted the need for effective environmental awareness, particularly among younger generations. As one of the most digitally engaged generations, Generation Z actively consumes, distributes, and shapes environmental narratives through online channel. This research examines how digital platforms contribute to building environmental awareness within the Generation. It also looks at how various digital platforms influence Generation Z on their level of environmental awareness, as well as to identify the problems faced in promoting environmental awareness through these platforms. The study follows a descriptive research design, using a literature review and primary data collected from Generation Z respondents through a structured questionnaire shared via Google Forms. The study will be conducted in Vadodara district of Gujarat. A total of 120 respondents will be selected using purposive sampling. Data were analysed using statistical tools such as frequency, percentage, mean, standard deviation, and correlation tests. The findings are expected to how digital platforms can be used more effectively to promote environmental awareness and to highlight key challenges such as misinformation, limited engagement, and content credibility among generation Z. Based on the findings, the study suggests practical steps to improve the use of media for environmental communication.

This research contributes to understanding how digital platforms can be used more effectively to promote environmental awareness and responsible behavior among Generation Z.

Key words: Environmental Awareness, Digital Platforms, Generation Z

INTRODUCTION

Environmental problems such as climate change, loss of biodiversity, and ecological imbalance have intensified due to rapid urban development and human activities (Rockstrom et al., 2009). These issues have increased the urgency for creating awareness among people, especially younger generations, so that sustainable practices can be encouraged (Rockstrom et al., 2009). The 2021 Climate change reports have emphasized on the need of public awareness and action because of the environmental degradation caused by the various climatic changes. According to Arshad et al., (2020) Environmental awareness refers to an individual's understanding of environmental issues along with their willingness to adopt responsible behaviours for environmental protection. People who are well-informed tend to develop positive attitudes toward sustainability and are more likely to adopt eco-friendly practices. With the advancement of technology, digital platforms have emerged as powerful tools for communication and information sharing. (Harvard Business School Online, 2024).

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Digital platforms are defined as technology-based systems that allow people from diverse geographical locations of the world to connect, communicate, and share information online.⁵ These platforms make it possible for users across different locations to connect with each other, share ideas, and exchange information without any delay. The use of digital platforms has expanded rapidly and has brought a big transformation in the field of environmental communication and has enable timely sustainability related information across different countries. These platforms have been found to strengthen the public engagement and awareness (Kalpan & Haenlein, 2010). For today's youth, especially Generation Z, digital platforms serve as a primary source of information and engagement. According to Anderson, (2017) social media and digital platforms have been shown to positively influence climate change awareness. Thus, increasing knowledge and encouraging more discussions for climate change. Known as "digital natives", Generation Z depends on heavily on online platforms for learning, communication, and social interaction. Their preference for visual and interactive content, such as videos and social media posts, makes digital platforms highly effective in delivering environmental messages (Jayatissa, 2023). Various other studies have indicated that the Generation Z are concerned about environmental sustainability and climate changes compared to the previous generations. They are highly impacted by the digital platforms which encourages community involvement for environmental concerns. Various researches suggests that virtual and digital communications get significantly influenced by the environmental knowledge and public intentions. Visual storytelling, multimedia content, and online campaigns have been found to enhance understanding and encourage participation in environmental issues (O'Neill and Smith, 2014). Lee et al. (2020) stated that more studies indicate that exposure to environmental content through digital media can positively influence awareness levels and shape attitudes toward sustainability. The findings suggested that digital platforms helped in shaping the perceptions and attitudes towards environmental sustainability. In addition to this, digital platforms offer a low-cost and easily

expandable way to run awareness campaigns and engage communities on environmental problems. However, despite the widespread availability of environmental content online, challenges such as misinformation, lack of engagement, and credibility issues still exist. Therefore, it is necessary to examine the role of digital platforms in creating environmental awareness among Generation Z. It aims to understand how digital platforms influences environmental awareness, attitudes and perceptions.

OBJECTIVES OF THE STUDY

- 1) To assess the level of awareness of the generation Z regarding the use of digital platforms in creating environmental awareness.
- 2) To study the influence of digital platforms on the level of environmental awareness among the generation Z.
- 3) To identify the problems faced by the generation Z in promoting environmental awareness through digital platforms.
- 4) To suggest suitable strategies and recommendations for improving the effectiveness of media in creating environmental awareness.

REVIEW OF LITERATURE

The review of literature revealed that existing studies show how digital platforms shape the attitudes of the younger generations and highlight why environmental awareness is important for sustainable living. Digital platforms are online spaces that allow users across different geographical regions to communicate, interact, and exchange information freely (Harvard Business School Online, 2024). Rockstrom et al. (2009) emphasized on the necessity of better public understanding and engagement for the increasing environmental issues. Awareness plays a crucial role in shaping individuals' attitudes and encouraging environmentally responsible behaviour (Arshad et al., 2020). Research also suggests that social media

platforms enhance public engagement by making environmental information more accessible and relatable (Anderson, 2017). Kaplan and Haenlein (2010) stated that digital platforms enable communication and timely information. In particular, visual content such as images, videos, and storytelling techniques has been found to make environmental issues easier to understand and more impactful (O'Neil and Smith, 2014). Lee et al. (2020) revealed that exposure to environmental information through digital media can significantly improve knowledge levels and foster positive attitudes toward sustainability. Most of the studies focused on social media usage or environmental behaviours, without assess the combined effect of both. This indicates a gap in the existing literature, which the present study aims to address. To bridge the gap between online environmental content and influence of it on the Generation Z, this study was undertaken.

METHODOLOGY

This study used a descriptive research design and was conducted in the Vadodara city of Gujarat (Creswell, 2014). The inquiry unit for the present study were the people born between the years of 1997 and 2012, i.e., Generation Z. A total of 120 participants were chosen through purposive sampling. Only those individuals who identified as Generation Z and fell within the age range of 18 to 29 years were considered eligible for inclusion. The primary instrument for data collection was a structured questionnaire developed specifically for this study. A Three-point scale was constructed to measure the awareness of respondents, with response options of "Aware", "Undecided" and "Unaware", with scores ascribed from 3 to 1 respectively, about the role of digital platforms in creating environmental

awareness. A five-point scale was constructed to measure the influence of digital platforms on the level of environmental awareness, with the response options of "Strongly Agree", "Agree", "Neutral", "Disagree" and "Strongly Disagree", with scores ascribed from 5 to 1 respectively (Likert, 1932). The problems faced by Generation Z in promoting environmental awareness were measured through a three-point scale with options of "Always", "Sometimes" and "Never", with scores ascribed from 3 to 1 respectively. Each scale underwent validation procedures and the corresponding reliability coefficients were computed. Questionnaire was shared to respondents by using Google form, and they were informed that all information provided by them would remain confidential. All collected data was systematically organised and documented. Statistical techniques including frequency counts, percentages, weighted mean, and hypothesis testing were employed for analysis (Best & Kahn, 2006). The collected data was organised under four broad categories — background profile of participants, respondents' awareness regarding digital platforms and environmental awareness, the degree of influence exerted by digital platforms, and the difficulties encountered by Generation Z while promoting environmental awareness.

FINDINGS AND CONCLUSIONS

5.1 DEMOGRAPHIC INFORMATION OF THE RESPONDENTS

This section presents the demographic background of the participants, covering age, education, occupational status, average daily internet usage, and primary digital device used.

Z			
Sr.No.	Variable	Frequency	Percentage
Gender		F	%
1.	Male	63	52.50
2.	Female	57	47.50
Total		120	100.00
Age		F	%
1.	18 - 21 years	29	24.17

2.	22 - 25 years	54	45.00
3.	26 – 29 years	37	30.83
Total		120	100.00
Education Specialisation		F	%
1.	Primary Education	0	0.00
2.	Secondary Education	0	0.00
3.	Graduate	69	57.50
4.	Post Graduate	51	42.50
5.	Any Other	0	0.00
Total		120	100.00
Occupational Status		F	%
1.	Service	32	26.67
2.	Business	29	24.17
3.	Self Employed	26	21.67
4.	Unemployed	33	27.50
Total		120	100.00
Average daily internet usage		F	%
1.	Less than 1 Hour	8	6.67
2.	2-4 Hours	44	36.67
3.	4-6 Hours	41	34.17
4.	More than 6 Hours	27	22.50
Total		120	100.00
Primary digital device used		F	%
1.	Smartphone	80	66.67
2.	Laptop	9	7.50
3.	Tablet	1	0.83
4.	Multiple Devices	30	25.00
Total		120	100.00

The data recorded in Table 1 shows that in terms of gender, just over half of the total respondents (52.50 per cent) were male, while the remaining 47.50 per cent were female. With regard to age, the largest group of respondents (45.00 per cent) belonged to the 22 to 25 years age bracket. In terms of educational background, more than half of the respondents (57.50 per cent) held a graduate degree, and the highest share of respondents by occupation (27.50 per cent) were unemployed. When it came to daily internet usage, 36.67 per cent of the respondents reported spending 2 to 4 hours online on an average day. As far as the primary digital device is concerned, smartphones

were the most widely used device, with nearly two thirds of the respondents (66.67 per cent) relying on them as their main mode of accessing digital platforms.

5.2 AWARENESS OF RESPONDENTS ABOUT THE ROLE OF DIGITAL PLATFORMS IN CREATING ENVIRONMENTAL AWARENESS

This section presents the data findings concerning how aware the respondents were about the part that digital platforms play in building environmental awareness.

Table 2: Level of Awareness of Respondents About the Role of Digital Platforms in Creating Environmental Awareness.

Level of Awareness	Range of Score	F	%
Low Level of Awareness	20 - 33	0	0.00%
Moderate Level of Awareness	34 - 46	8	6.67%
High Level of Awareness	47 - 60	112	93.33%

The data presented in Table 2 indicates that respondents demonstrated a high overall level of awareness about the role of digital platforms to create environmental awareness. Not a single respondent was found to fall within the low awareness range (score range 20-33), which clearly shows that inadequate awareness about the role of digital platforms in environmental awareness was entirely absent among the sample. Among the total sample, only 8 respondents recorded a moderate level of awareness with scores falling between 34 and 46, which accounts for a small proportion of 6.67 per cent of the total participants. Whereas, a dominant majority comprising 112 respondents, which is 93.33 per cent of the total sample, recorded a high level of awareness with their scores falling in the

range of 47 to 60. T The overall results point out that the respondents possess a considerably strong level of awareness regarding the role that digital platforms play in creating environmental awareness, and this can largely be attributed to the fact that the respondents are frequent and regular users of digital platforms.

5.3 INFLUENCE OF DIGITAL PLATFORMS ON THE LEVEL OF ENVIRONMENTAL AWARENESS

This section covers the data findings that relate to the degree to which digital platforms have an influence on the level of environmental awareness among the respondents.

Table 3: Extent of Influence of Digital Platforms on the Level of Environmental Awareness

Extent of Influence	Range of Score	F	%
Low Extent of Influence	20 - 33	4	3.33%
Moderate Extent of Influence	34 - 46	7	5.83%
High Extent of Influence	47 - 60	109	90.83%

The interpretation of data from table 3 regarding the extent of digital platform influence on environmental awareness suggests that digital platforms exercise a high degree of influence on the respondents A very limited number of respondents, specifically 4 in total which represents just 3.33 per cent of the sample, were found to fall within the low extent of influence category with scores between 20 and 33, suggesting that very few respondents felt that digital platforms had little or no effect on their environmental awareness. Seven respondents from the total

sample were found to fall in the moderate extent of influence range with scores between 34 and 46, and these respondents together make up 5.83 per cent of the overall sample size. In contrast, a large and dominant majority of 109 respondents, accounting for 90.83 per cent of the total sample, reported experiencing a high extent of influence from digital platforms, with their scores ranging between 47 and 60. Based on the overall results, it can be clearly stated that the influence of digital platforms on the environmental awareness levels of the respondents is considerably strong.

5.4 PROBLEMS FACED BY GENERATION Z IN PROMOTING ENVIRONMENTAL AWARENESS

This section presents the findings related to the level of problems faced by Generation Z while promoting environmental awareness through digital platforms.

A review of the data presented in Table 4 makes it clear that Generation Z respondents experience a significant level of challenges when it comes to promoting environmental awareness through digital platforms. Only 1 respondent from the entire sample, representing a mere 0.83 per cent of the total, was found to fall in the low level of problems category with scores between 20 and

Table 4: Extent of Influence of Problems Faced by Generation Z in Promoting Environmental Awareness

Extent of Problems Faced	Range of Score	F	%
Low Extent of Problems	20 - 33	1	0.83%
Moderate Extent of Problems	34 - 46	11	9.17%
High Extent of Problems	47 -60	108	90.00%

33. A moderate level of difficulties with scores ranging from 34 to 46 was observed among 11 respondents, who together account for 9.17 per cent of the overall sample. On the other hand, an overwhelming majority of 108 respondents, making up 90.00 per cent of the total sample, reported facing a high level of problems with their scores falling between 47 and 60. These findings clearly bring out the fact that in spite of having a strong level of awareness and being greatly influenced by digital platforms, the respondents still continue to encounter a considerably high degree of difficulties in effectively promoting environmental awareness.

5.5 TESTING OF HYPOTHESES

Statistical tests including the t-test, Pearson correlation coefficient, and one-way ANOVA were applied based on the nature of each variable. All hypotheses were framed as null hypotheses and the outcomes are presented below.

HO1 : There is no difference in the level of awareness of Generation Z regarding the use of digital platforms in creating environmental awareness with the personal variables of respondents (age and gender).

Table 5: Analysis of Variance showing difference in the level of awareness of Generation Z regarding the use of digital platforms in creating environmental awareness with the personal variables of respondents - Age

Personal variables of respondents (Age)					
Selected variables	Sum of squares	Mean Squares	DF	F - Value	Level of Significance
Age					
Between groups	32.57761	16.289	2	0.55	N.S*
Within groups	3463.014	29.598	117		
Note: df = Degree of Freedom, * No Significance					

One-way Analysis of Variance was applied to examine this hypothesis. As reflected in Table 5, the F values obtained did not attain statistical significance with respect to differences in awareness levels across age groups. Accordingly,

the null hypothesis was retained, indicating that age does not meaningfully differentiate Generation Z respondents in terms of their awareness about digital platforms and environmental awareness.

Table 6: t-test showing the difference in the level of awareness of Generation Z regarding the use of digital platforms in creating environmental awareness with the personal variables of respondents - Gender

Selected variables	Mean Score	t - value	DF	Level of Significance
Male	56.460	-0.114	116	N.S*
Female	56.578			
Note: df = Degree of Freedom, * No Significance				

The independent samples t-test results presented in Table 6 revealed that no statistically significant difference was observed between male and female Generation Z respondents in their awareness levels regarding digital platforms as a tool for environmental awareness. The null hypothesis was therefore retained, establishing that gender

does not act as a distinguishing variable in this context.

HO2 : There exists no variation in the influence of digital platforms among the Generation Z with the personal variables of respondents (age and gender).

Table 7: Analysis of Variance showing variation in the influence of digital platforms among the Generation Z with the personal variables of respondents - Age

Selected variables	Sum of squares	Mean squares	DF	F-Value	Level of Significance
Age					
Between groups	4.185593	2.0982	2	3.04	N.S*
Within groups	27978.62	237.107	118		
Note: df = Degree of Freedom, * No Significance					

One-way Analysis of Variance was applied to examine this hypothesis. As reflected in Table 7, the computed F values did not reach a statistically significant level for the variation in age group of respondents and the influence of digital platforms on their environmental awareness,

and therefore the null hypothesis was accepted, establishing that age group does not bring about any meaningful difference in the extent to which digital platforms shape environmental awareness among Generation Z.

Table 8: t-test showing variation in the influence of digital platforms among the Generation Z with the personal variables of respondents - Gender

Selected variables	Mean Score	t - value	DF	Level of Significance
Male	55.2698	-1.152	113	N.S*
Female	56.8421			
Note: df = Degree of Freedom, * No Significance				

The independent samples t-test results presented in Table 8 revealed that gender among Generation Z respondents yielded no statistically significant difference in their level of awareness regarding the use of digital platforms in creating environmental awareness. Thus, the null hypothesis was accepted, confirming that gender does not constitute a differentiating factor

in the level of environmental awareness fostered through digital platforms among Generation Z.

HO3 : There exists no relationship between the problems faced and the level of awareness of generation Z regarding the use of digital platforms in creating environmental awareness.

Table 9: Co-efficient of Correlation showing relationship between the problems faced and the awareness of Generation Z regarding the use of digital platforms in creating environmental awareness

Selected variables	n	r - value	Level of Significance
Problems faced by Generation Z in promoting environmental awareness	120	0.263	N.S*
Awareness of respondents about the role of digital platforms in creating environmental awareness			
Note: df = Degree of Freedom, * No Significance			

The findings from the analysis established the presence of a statistically significant relationship between the problems faced by Generation Z in promoting environmental awareness and their level of awareness regarding the role of digital platforms in creating environmental awareness at 0.05 level of significance. The null hypothesis

was therefore rejected, establishing that a real and statistically meaningful association exists between the two variables, as shown in Table 9.

HO4 : There exists no relationship between the problems faced and the extent of influence of digital platforms among the Generation Z.

Table 10: Co-efficient of Correlation showing relationship between the problems faced and the extent of influence of digital platforms among the Generation Z

Selected variables	n	r - value	Level of Significance
Problems faced by Generation Z in promoting environmental awareness	120	0.616	N.S*
Awareness of respondents about the role of digital platforms in creating environmental awareness			
Note: * Level of Significance			

The findings from the correlation analysis established the presence of a statistically significant relationship between the problems faced by Generation Z in promoting environmental awareness and the extent of influence of digital

platforms among Generation Z at the 0.05 level of significance. The null hypothesis was consequently rejected, affirming the presence of a significant and substantive connection between the two variables, as detailed in Table 10.

OUTCOMES OF THE STUDY

SUITABLE STRATEGIES AND RECOMMENDATIONS FOR IMPROVING THE EFFECTIVENESS OF MEDIA IN CREATING ENVIRONMENTAL AWARENESS

- Enhanced awareness through digital platforms – The study revealed that digital platforms play an important role in increasing environmental awareness among Generation Z because of their frequent use and so interactive formats (like reels, short videos and visual story telling) can be incorporated more for promotions of social campaigns.
- Community Based Campaigns – Community based campaigns can be promoted through digital platforms which will engage the society and communities as a whole, thus leading to more participation in initiatives like online challenges, campaigns, seminars, and webinars.
- Promotions through Influencers and Youth Ambassadors – The influencers and other popular personality have a great impact on the Generation Z, thus including them in promotions will enhance the reach and engagement of the online published content.

CONCLUSION

The findings of this study strongly highlight that digital platforms serve as a significant and impactful medium in building and promoting environmental awareness among the Generation Z population. An analysis of the weighted mean scores clearly reflects that smartphones and popular social media platforms such as Instagram function as the primary and most relied upon sources of environmental information for Generation Z individuals. The study further found that digital platforms carry a strong and positive influence on Generation Z, helping them develop a better understanding of environmental issues and motivating them to take the required steps toward addressing the existing problems related to environmental awareness. Also, based

on the results of hypothesis testing, it can be concluded that personal demographic variables such as age group and gender did not produce any statistically significant variation in either the level of awareness of Generation Z regarding the use of digital platforms in creating environmental awareness or the extent of influence of digital platforms among Generation Z respondents. The one-way Analysis of Variance and independent samples t-test consistently yielded non-significant results across both demographic variables, leading to the acceptance of the respective null hypotheses. Furthermore, the correlation analysis revealed a statistically significant moderate positive relationship between the problems faced by Generation Z in promoting environmental awareness and the extent of influence of digital platforms among Generation Z, confirming that a genuine and meaningful association exists between the two variables at the 0.05 level of significance, thereby leading to the rejection of the null hypothesis. Thus, it can be firmly stated that digital platforms stand out as a highly effective and widely accessible medium for spreading and promoting environmental awareness, and this effectiveness is particularly evident and pronounced in the case of Generation Z.

IMPLICATION OF THE STUDY

- By researching about the role of digital platforms in creating environmental awareness among the generation Z, the study will contribute to the existing literature by bridging the gap between digital platforms and environmental awareness.
- For Generation Z, it serves as a guide and will help in better understanding for how young individuals can perceive and engage with environmental content, thus promoting sustainable lifestyle practices.
- For environmental enthusiasts and organizations working for environment, it offers a comprehensive understanding and the results can be taken into considerations for building up strategies for environmental awareness campaigns.

RECOMMENDATION FOR THE FUTURE STUDY

- Future research could extend this work by carrying out comparative studies across different geographical regions to better understand how location affects digital platform influence on environmental awareness.
- It is further recommended that long term behavioural changes resulting from digital platforms awareness campaigns can also be tested.

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