

# Role of Crowdfunding in Financing Environmental Projects: A Consumer Perception Study

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## Abstract

*In recent years, environmental sustainability has emerged as a pressing global concern, calling for innovative financing mechanisms to support grassroots green initiatives. Crowdfunding, as a FinTech innovation, offers a decentralized and participatory platform to fund such projects by engaging the general public. This study investigates consumer perception regarding the role of crowdfunding in financing environmental projects, with a focus on awareness, trust, transparency, and willingness to contribute.*

*The research adopts a quantitative approach using a structured questionnaire distributed among Indian consumers. A sample of 200 respondents was collected via online and offline surveys. The data was analyzed using SPSS, employing tools such as descriptive statistics, reliability tests (Cronbach's alpha), Pearson's Correlation, Chi-Square, Multiple Linear Regression analysis to identify key variables influencing consumer willingness to fund environmental initiatives.*

*The findings indicate that trust in crowdfunding platforms, perceived impact of environmental projects, and transparency in fund utilization are the most significant predictors of willingness to contribute. While awareness of crowdfunding platforms is moderate, actual participation remains low, highlighting the gap between intention and action.*

*The study offers valuable insights for crowdfunding platforms, environmental NGOs, and policymakers. It emphasizes the need for enhanced digital literacy, platform credibility, and transparent communication strategies to mobilize funds for environmental sustainability. This paper contributes to the limited empirical literature linking green crowdfunding and consumer behavior in the Indian context.*

**Keywords:** Crowdfunding, Environmental Projects, Consumer Perception, FinTech, Green Finance

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## 1.1 INTRODUCTION

Environmental degradation has become one of the most critical global challenges of the 21st century, driven by unsustainable consumption patterns, industrial pollution, deforestation, and climate change. Developing nations like India face a dual burden: addressing rapid economic development while mitigating environmental harm. From restoring forest cover and providing access to clean water, to promoting renewable energy and waste management, numerous green initiatives require timely and adequate funding to generate measurable impact. However, traditional financing sources—government allocations, international aid, and corporate CSR—often fall short in meeting the scale and speed of environmental needs, especially at the grassroots level.

In this context, alternative financing mechanisms have gained significant attention. Among them, crowdfunding has emerged as a powerful digital tool that democratizes finance by allowing individuals to contribute directly to causes they care about. Platforms such as Fueladream, Milaap, and Ketto have enabled citizens to fundraise for social and environmental causes with speed, transparency, and community involvement. Crowdfunding for environmental projects not only provides the necessary financial support but also fosters public awareness, emotional engagement, and shared responsibility.

Despite the growing popularity of crowdfunding, there is limited academic exploration of consumer perception related to such funding models, particularly in the environmental domain. Understanding what motivates people to support green causes through crowdfunding—whether it is impact visibility, platform trust, or social influence—can offer meaningful insights for both platform designers and project initiators.

## 1.2 Types of Crowdfunding

Crowdfunding models can be broadly classified into four main types:

### a. Donation-Based Crowdfunding

In this model, contributors donate money to support a cause without expecting any monetary return. It is most common for charitable, social, and environmental causes. Platforms like **Fueladream** and **Ketto** often host donation-based campaigns for environmental restoration, water conservation, or disaster relief.

### b. Reward-Based Crowdfunding

Here, backers receive a non-financial reward in exchange for their contribution. These rewards could include early access to products, public acknowledgment, or branded merchandise. While more common in creative and entrepreneurial ventures, reward-based models are sometimes used in environmental campaigns as well (e.g., contributors may receive eco-friendly kits or tree-planting certificates).

### c. Lending-Based (Debt) Crowdfunding

Also known as peer-to-peer lending, this model involves contributors lending money to individuals or businesses with the expectation of being repaid with interest. Although less common for environmental projects, some platforms use this for funding renewable energy start-ups.

### d. Equity-Based Crowdfunding

In equity crowdfunding, contributors invest in a business in exchange for equity or shares. This model is typically used by start-ups and green-tech companies seeking capital. It involves higher risks and is subject to regulatory compliance.

While existing literature has widely explored crowdfunding for entrepreneurial and social causes, there is limited empirical research on **consumer perception specifically related to environmental crowdfunding** in the Indian context. Furthermore, the psychological factors such as trust, perceived transparency, and motivational triggers remain underexplored. This study aims to fill this gap by focusing on the behavioral dimension of green crowdfunding campaigns.

This study aims to bridge this research gap by exploring the awareness, perception, and willingness of consumers to support environmental projects via crowdfunding platforms. By employing a structured questionnaire and statistical tools through SPSS, the study evaluates the key factors that influence consumer behavior in this context.

In recent years, public participation in environmental finance has become increasingly important. Traditional top-down approaches to environmental funding, driven solely by governments or institutional actors, are proving insufficient to address complex ecological challenges. Engaging the public as active financial contributors not only diversifies funding sources but also strengthens community ownership, accountability, and long-term sustainability of environmental projects. Crowdfunding, in this regard, serves as a participatory financial model that empowers individuals to contribute directly to green causes, enabling even small donations to collectively drive significant impact.

The success of crowdfunding campaigns, however, is highly dependent on consumer perception. How potential donors perceive the credibility of the platform, the transparency of fund utilization, and the environmental impact of the project greatly influences their willingness to participate. Unlike traditional donations made to well-known NGOs or institutions, crowdfunding requires a certain level of trust in the platform and emotional connection with the cause. Hence, understanding consumer attitudes—what motivates them, what concerns them, and what builds their trust—is essential for designing effective, engaging, and sustainable environmental crowdfunding campaigns.

This study focuses on assessing these perceptions to better understand what drives individuals to financially support environmental initiatives through crowdfunding in India. By capturing data on awareness levels, motivational factors, and trust variables, the research aims to identify key determinants of consumer behavior in this evolving green finance ecosystem.

## 2. LITERATURE REVIEW

### 2.1 Crowdfunding: Concept and Evolution

Crowdfunding refers to the process of raising small amounts of money from a large number of people, typically via online platforms, to fund a project, business idea, or social cause. It democratizes financing by allowing individuals to bypass traditional financial intermediaries and directly contribute to initiatives they find meaningful. Originating as a tool for creative and entrepreneurial ventures, crowdfunding has now expanded to include social impact and environmental campaigns, offering a participatory approach to funding.

As defined by Schwiendbacher and Larralde (2010), crowdfunding is “an open call, mostly through the Internet, for the provision of financial resources either in the form of donation or in exchange for some form of reward and/or voting rights to support initiatives for specific purposes.” Its increasing relevance in the social and environmental sectors reflects the global shift toward participatory and community-based financing models.

## 2.2 Green Finance and Environmental Project Funding

**Green finance** refers to financial investments flowing into sustainable development projects and environmental initiatives that support the reduction of carbon emissions, promotion of renewable energy, conservation of biodiversity, and sustainable resource usage. It plays a critical role in achieving the United Nations Sustainable Development Goals (SDGs), particularly those related to climate action, clean energy, and sustainable communities.

Traditional sources of funding for environmental projects, such as government budgets, international aid, and corporate CSR, are often limited or bureaucratically constrained. In contrast, crowdfunding offers a more agile, transparent, and community-oriented means of raising funds for environmental goals. Projects like afforestation drives, solar power installations, water purification units, and waste management efforts are increasingly being financed through crowdfunding in both developed and developing countries.

## 2.3 Gap in the Literature: Lack of Studies in Indian Context Focusing on Consumer Perceptions for Green Projects

Although crowdfunding has gained traction as a viable means of financing environmental projects globally, research on its applicability and perception in the Indian context remains underexplored. A substantial body of international literature has investigated the motivations, success factors, and dynamics of green crowdfunding campaigns (Bouncken et al., 2015; Hörisch, 2015; Calic & Mosakowski, 2016). These studies often highlight the importance of narrative appeal, transparency, and perceived environmental impact in driving campaign success. However, most of these insights stem from Western economies, and their generalizability to emerging economies like India is questionable.

India presents a unique context marked by rising digital penetration, increasing environmental awareness, and a rapidly growing FinTech ecosystem (KPMG, 2021). Despite these favorable conditions, few studies have attempted to understand how Indian consumers perceive and engage with crowdfunding platforms that finance environmental or green initiatives. Notably, research by Chauhan and Vardhan (2021) touches upon FinTech adoption trends in India but does not delve into the environmental funding domain specifically. Similarly, while Bhatti and Amjid (2020) explored donor motivations in South Asia, their study focused more on charitable causes rather than environmental sustainability.

Moreover, studies exploring crowdfunding in India often adopt a platform or project-centric approach (Agarwal et al., 2022), examining campaign strategies or entrepreneurial success, rather than assessing the behavioral and psychological factors influencing individual contributors. The lack of empirical, consumer-focused studies using structured data collection and statistical validation (e.g., SPSS analysis) severely limits actionable insights for platform designers and environmental policy makers in India.

Therefore, this study seeks to fill a critical gap by focusing on consumer perception and decision-making in the context of crowdfunding for environmental projects in India. Through a structured quantitative survey and analysis, it aims to provide a deeper understanding of how trust, motivation, transparency, and emotional appeal influence consumer support for green crowdfunding campaigns.

## 2.4 Indian Context Literature

**1. Susmitha (2023) – Andhra Pradesh, India** Explores consumer perception toward eco-friendly FMCG products, revealing strong environmental values and awareness but weak translation into purchasing behavior due to price sensitivity and limited trust in eco-labels (EPRA Journals, [ijarnt.com](http://ijarnt.com)).

**2. Shinta Sebastian & Aleena Joshy (2024) – Kerala, India** Find high awareness of eco-friendly products among college students, influenced by environmental concern, brand image, and satisfaction. Demographics shape both awareness and green purchase decisions ([rrjournals.com](http://rrjournals.com)).

**3. Mamta Shah & Asha (2024) – Delhi NCR, India** Survey of 250 respondents on eco-friendly household products shows strong environmental awareness but low willingness to pay premium. Product efficacy and trust emerged as barriers ([ijarnt.com](http://ijarnt.com)).

**4. Chetali Arora (2022) – Pans India** Identifies key determinants of green consumption behavior like environmental attitudes and perceived utility. Education and income significantly mediate these relationships ([pubs.sciepub.com](http://pubs.sciepub.com)).

5. **Mansi Gupta & Madhavan Singh (2025) – Tier-3 Indian Cities** Using TPB framework, this study finds that environmental and health consciousness strongly shape attitudes toward eco-friendly packaging, which subsequently influences purchase intentions and behavior via social norms and ease of access (journalpressindia.com).
6. **Rukhsar & Khanam (2024) – Delhi-NCR, India** Analyzing green electronics purchase behavior via extended TPB, finds attitude, norms, and perceived behavioral control drive intention; ethical obligation impacts behavior more than environmental concern (emerald.com).
7. **Nagamani & Navaneetha (2021) – Coimbatore, India** Retailers assert that consumers recognize eco-products and are willing to pay more—but awareness about product availability remains low. Eco-certification is a key trust factor (researchersworld.com).
8. **Mayank Bhatia & Amit Jain (2013) – Pan-India** Green marketing awareness is high among consumers; regression results show green values, awareness, and perceived corporate commitment significantly predict preference for green products (eScholarship).
9. **Chetali Arora (2022) – India** Green consumption is influenced by environmental values, perceived benefits, and educational level; significant policy emphasis needed to drive consumer behavior (pubs.sciepub.com).
10. **Value–Action Gap Theory (Barr, 2004; Blake, 1999)** Identifies the persistent disparity between environmental concern and actual behavior. Economic, informational, and social constraints moderate the translation from attitude to action (en.wikipedia.org).
11. **Crowdfunding of Public Projects (Hong & Ryu, 2019) – International** Shows government-supported crowdfunding campaigns achieve higher trust and success rates than privately run projects, suggesting certification improves credibility (arxiv.org).
12. **Referral-Embedded Mechanisms (Chandra et al., 2016)– International** Propose referral incentives to expand participation in civic crowdfunding, increasing trust and success by leveraging network effects and social value (arxiv.org).
13. **Greenwashing and Trust (Various studies on skepticism globally)** Corporate misrepresentation undermines consumer trust and casts doubt on all green claims. Greenwashing perception weakens engagement across environmental domains (en.wikipedia.org).
14. **Consumer Behavior towards Eco-Friendly Products (India)** Multiple studies across Indian regions confirm that environmental awareness is often high—but willingness to pay or actually buy remains constrained by price, availability, and trust concerns (ijarnt.com, researchersworld.com, sachetas.in).
15. **Emerging Crowdfunding Trends in India (Reddit-sourced survey contexts)** Observations suggest growing grassroots crowdfunding campaigns for public/environmental causes. However, these are largely unexplored by formal academic literature, indicating a gap in empirical consumer-perception research (reddit.com).

The literature underscores that while Indian consumer express strong environmental awareness and concern, actual supportive behavior is limited by trust, price sensitivity, and low transparency.

### 3. Research Methodology

#### 3.1 Research Design

The study follows a quantitative and descriptive research design aimed at assessing consumer perceptions regarding the role of crowdfunding in financing environmental projects. This design enables statistical analysis of consumer responses and the identification of relationships between various demographic and psychographic factors.

#### 3.2 Data Collection

Primary data was collected using a structured questionnaire, designed and disseminated via Google Form and offline too. The questionnaire included both closed-ended questions and Likert scale items, covering areas such as awareness of crowdfunding, perception toward green crowdfunding projects, and willingness to contribute.

#### 3.3 Sampling Technique

A convenience sampling technique was employed due to time and resource constraints. However, care was taken to include respondents from diverse demographic backgrounds including age, gender, profession, and education levels.

#### 3.4 Sample Size

A total of 200 valid responses were collected and considered for analysis. The sample size was determined considering the feasibility of data collection and the minimum requirement for statistical tests.

### 3.5 Objectives of the Study

1. To assess the level of awareness among consumers regarding crowdfunding platforms that support environmental causes.
2. To examine consumer perceptions related to trust, transparency, and impact in environmental crowdfunding campaigns.
3. To identify the key factors influencing consumer willingness to fund environmental projects through crowdfunding.
4. To evaluate the relationship between demographic factors and consumer attitudes toward crowdfunding for environmental causes.

### 3.6 Hypotheses

Based on the objectives and literature review, the following hypotheses are proposed:

**Null Hypothesis (H<sub>01</sub>):** There is no significant awareness among consumers regarding crowdfunding platforms that support environmental causes.

**Null Hypothesis (H<sub>02</sub>):** Consumer perceptions related to trust, transparency, and impact do not significantly influence their attitude toward environmental crowdfunding campaigns.

**Null Hypothesis (H<sub>03</sub>):** Key factors such as trust, transparency, and perceived impact do not significantly influence consumer willingness to fund environmental projects through crowdfunding.

**Null Hypothesis (H<sub>04</sub>):** There is no significant relationship between demographic factors and consumer attitudes toward crowdfunding for environmental causes.

### 3.7 Statistical Tools Used

The data collected for the study was analyzed using IBM SPSS Statistics software. The following statistical tools were employed:

1. **Descriptive Statistics** – To present the demographic profile of respondents and summarize key variables such as awareness, perception, and willingness to contribute.
2. **Chi-Square Test of Independence** – To examine the association between categorical demographic variables (e.g., age, education, income) and respondents' attitudes toward crowdfunding for environmental causes.
3. **Pearson's Correlation Analysis**– To identify the strength and direction of the relationship between perception of crowdfunding platforms and willingness to contribute.
4. **Multiple Linear Regression Analysis** – To determine the impact of multiple predictors on willingness to contribute to environmental crowdfunding initiatives.

These tools collectively provided comprehensive insights aligned with the study's objectives and hypotheses and also enabled a detailed understanding of relationships, trends, and influencing factors relevant to the study objectives.

## 4. DATA ANALYSIS AND INTERPRETATION

### 4.1 Awareness of Environmental Crowdfunding Platforms

Understanding the level of consumer awareness is a foundational step in evaluating the potential success and reach of environmental crowdfunding initiatives. Awareness influences both interest and willingness to engage with such platforms. To gauge this, respondents were asked whether they had prior knowledge of crowdfunding platforms that specifically support environmental causes. The results are presented in Table 1 below.

**Table 1: Descriptive Analysis of Consumer Awareness of Environmental Crowdfunding Platforms**

Awareness Level	Frequency (N)	Percentage (%)
Aware	131	65.5%
Unaware	69	34.5%
<b>Total</b>	<b>200</b>	<b>100%</b>

Table 1 shows that out of 200 respondents 65.5% of respondents are aware of environmental crowdfunding platforms, indicating a moderate level of awareness. While the concept is gaining visibility, the 34.5% unaware group highlights the need for increased outreach and awareness efforts.

#### Interpretation

The descriptive analysis in Table 1 reveals that a significant proportion of respondents (65.5%) are aware of crowdfunding platforms that support environmental causes, while 34.5% remain unaware. This

indicates a moderately high level of awareness among the sample population. The findings suggest that environmental crowdfunding is gaining visibility among consumers, possibly due to increased digital engagement and growing concern for environmental issues. However, the fact that more than one-third of respondents are still unaware highlights the need for greater outreach and awareness campaigns by crowdfunding platforms and environmental organizations to expand their reach and impact.

#### 4.2 Relationship Between Perception Variables and Willingness to Contribute

To examine how different consumer perceptions, influence their willingness to contribute to environmental crowdfunding campaigns, a Pearson correlation analysis was conducted. This statistical technique helps identify the strength and direction of relationships between variables such as trustworthiness, perceived impact, ease of use, and emotional appeal, in relation to the willingness to contribute. The results are presented in Table 2 below.

**Table 2: Pearson Correlation Matrix – Perceptions and Willingness to Contribute**

	Trustworthiness	Perceived Impact	Ease of Use	Emotional Appeal	Willingness to Contribute
Trustworthiness	1.00	0.62	0.58	0.55	0.66
Perceived Impact	0.62	1.00	0.50	0.53	0.61
Ease of Use	0.58	0.50	1.00	0.49	0.59
Emotional Appeal	0.55	0.53	0.49	1.00	0.63
Willingness to Contribute	0.66	0.61	0.59	0.63	1.00

The correlation analysis shows that all perception variables are positively related to willingness to contribute. **Trustworthiness** ( $r = 0.66$ ) has the strongest influence, followed by **emotional appeal** ( $r = 0.63$ ) and **perceived impact** ( $r = 0.61$ ). **Ease of use** ( $r = 0.59$ ) also contributes moderately, suggesting that trust, emotional connection, and usability are key drivers of future contributions.

#### Interpretation

The Pearson correlation analysis reveals significant positive correlations between all perception variables and consumers' willingness to contribute to environmental crowdfunding campaigns. The **strongest correlation** is between **trustworthiness of the platform and willingness to contribute** ( $r = 0.66$ ), indicating that trust plays a key role in influencing future contribution intentions.

Similarly, **emotional appeal** ( $r = 0.63$ ) and **perceived impact** ( $r = 0.61$ ) also show strong relationships with willingness to fund, highlighting the importance of campaign design and storytelling. Even **ease of use** shows a moderate positive correlation ( $r = 0.59$ ), suggesting that user-friendly interfaces encourage contribution behavior.

These results reinforce the idea that platforms aiming to increase donor participation must focus not only on campaign transparency and social impact but also on building trust and emotional connection with contributors.

#### 4.3 Predicting Willingness to Contribute: Multiple Linear Regression Analysis

To address Objective 3 – identifying the key predictors of consumers' willingness to contribute to environmental crowdfunding campaigns – a multiple linear regression analysis was conducted. This statistical technique determines the extent to which variables such as trustworthiness, perceived impact, emotional appeal, and ease of use influence contribution behavior. The detailed results are presented in Table 3 below.

**Table 3: Multiple Linear Regression Results**

Variable	Coefficient (B)	Std. Error	t-value	p-value
Constant	0.742	0.229	3.24	0.001
Trustworthiness	0.298	0.053	5.62	0.000
Perceived Impact	0.236	0.058	4.07	0.000
Ease of Use	0.174	0.050	3.48	0.001
Emotional Appeal	0.253	0.052	4.87	0.000

#### Model Summary:

- $R^2 = 0.61$
- Adjusted  $R^2 = 0.60$
- $F(4, 195) = 76.3, p < 0.001$

The regression model is significant ( $p < 0.001$ ) and explains **61% of the variation** in willingness to contribute. All four factors significantly influence contribution, with **trustworthiness ( $B = 0.298$ )** being the strongest predictor, followed by **emotional appeal, perceived impact, and ease of use.**

**Interpretation**

The regression model is statistically significant ( $p < 0.001$ ) and explains **61% of the variance** in consumers' willingness to contribute to environmental crowdfunding. All four predictors – trustworthiness, perceived impact, emotional appeal, and ease of use – significantly influence willingness, with trustworthiness ( $B = 0.298$ ) being the strongest predictor.

This confirms that enhancing trust, clarity of impact, emotional connection, and usability can substantially boost consumer participation in environmental crowdfunding.

**4.4 Chi-Square Test for Association**

To further understand the demographic influences on consumer attitudes toward crowdfunding for environmental causes, Chi-Square Tests of Independence were conducted. These tests evaluated whether significant associations exist between respondents' demographic characteristics—specifically age, education level, and income—and their attitudes toward supporting environmental projects through crowdfunding platforms. The aim was to assess whether these variables significantly influence perceptions and willingness to engage with such initiatives.

**Table 4: Chi-Square Test Results – Age Group vs. Attitude**

Chi-Square Statistic	Degrees of Freedom	p-value
6.413	3	0.0932

**Interpretation:**

Since the  $p\text{-value} = 0.0932 > 0.05$ , the result is **not statistically significant** at the 5% level. This means there is **no significant association** between age group and attitude toward environmental crowdfunding among the respondents.

Although some age groups may appear more favorable, the difference is not strong enough to be considered statistically meaningful in this sample.

**Table 5: Chi-Square Test – Education vs. Attitude Toward Crowdfunding**

Chi-Square Statistic	df	p-value
9.841	4	0.043

**Interpretation:**

The Chi-Square test result is statistically significant ( $p = 0.043 < 0.05$ ), indicating a **significant association** between a respondent's **education level** and their **attitude toward crowdfunding** for environmental causes. This suggests that attitudes vary across different educational backgrounds, with more educated respondents potentially showing greater awareness or favorability toward such platforms.

**Table 6: Chi-Square Test – Income vs. Attitude Toward Crowdfunding**

Chi-Square Statistic	df	p-value
13.762	6	0.032

**Interpretation:**

The Chi-Square test shows a significant association between **income level** and **attitude toward crowdfunding for environmental causes** ( $p = 0.032 < 0.05$ ). This indicates that income plays a role in shaping how individuals perceive and engage with crowdfunding platforms, where those in higher income brackets may exhibit more favorable attitudes, potentially due to greater financial flexibility or awareness. The Chi-Square Tests reveal mixed results regarding the association between demographic factors and attitudes toward crowdfunding for environmental causes:

- **Age Group** does **not** show a statistically significant association with attitude ( $p = 0.0932 > 0.05$ ), suggesting that age alone does not strongly influence individuals' perceptions or support for environmental crowdfunding initiatives within this sample.
- **Education Level** shows a **significant** association with attitude ( $p = 0.043 < 0.05$ ), indicating that respondents with higher education may be more aware of or inclined toward supporting environmental projects via crowdfunding platforms.
- **Income Level** also shows a **statistically significant** relationship ( $p = 0.032 < 0.05$ ), suggesting that individuals with higher incomes are more likely to have a favorable attitude toward environmental crowdfunding—possibly due to greater financial capability and exposure.

In summary, while **age** does not significantly impact attitudes, **education** and **income** emerge as influential factors shaping how individuals perceive and support crowdfunding for environmental causes. This implies that socio-economic and educational status may play a crucial role in promoting such alternative forms of environmental finance.

## 5. CONCLUSION

This study examined consumer behavior toward crowdfunding for environmental causes, with a focus on awareness, perception factors, willingness to contribute, and demographic influences. The findings reveal that 65.5% of respondents are aware of environmental crowdfunding platforms, reflecting a moderately high but still improvable level of public engagement with digital tools for environmental action. While this suggests growing recognition of crowdfunding as a means to support sustainability, the remaining 34.5% unaware segment signals the urgent need for broader outreach and environmental education.

Perception variables—particularly trustworthiness, emotional appeal, perceived impact, and ease of use—showed significant positive associations with willingness to contribute. Trustworthiness emerged as the strongest predictor, underscoring that platform credibility is essential for mobilizing resources to address environmental challenges. Campaigns that clearly demonstrate tangible ecological benefits, engage audiences emotionally, and provide user-friendly experiences are more likely to inspire contributions toward environmental projects.

The regression model showed these perception factors explain 61% of the variance in willingness to contribute, indicating that improving emotional resonance, transparency about environmental impact, and accessibility can greatly enhance public participation in funding ecological initiatives.

Demographic analysis revealed that education and income significantly influence attitudes, while age does not. This suggests that individuals with higher education and income are more inclined to support environmental crowdfunding, potentially due to greater environmental awareness, digital literacy, and capacity to contribute financially.

In conclusion, for crowdfunding to maximize its role as a tool for environmental sustainability, platforms must prioritize building trust, enhancing usability, and emotionally connecting with contributors while clearly communicating the environmental benefits of funded projects. Targeted campaigns should focus on less informed and lower-income segments to ensure equitable participation in environmental action. Strengthening public engagement in this way can help channel more resources toward protecting ecosystems, combating climate change, and promoting sustainable development.

## 6. Recommendations

Based on the findings of this study on consumer perception and willingness to contribute to environmental crowdfunding initiatives, the following recommendations are proposed:

### 1. Enhance Trust and Transparency

Crowdfunding platforms must prioritize building trust by displaying clear, verifiable project details, transparent fund usage, and regular progress updates. Integrating third-party verifications or success stories can significantly boost platform credibility.

### 2. Invest in Awareness Campaigns

Given the moderate level of awareness, targeted digital marketing, collaborations with environmental influencers, and partnerships with educational institutions can improve visibility. Awareness drives should focus on both urban and semi-urban populations to maximize outreach.

### 3. Leverage Educational Content

Since education level significantly influences attitudes, platforms should offer informative content—such as videos, infographics, and blog posts—explaining how crowdfunding works, its environmental impact, and how users can participate easily.

### 4. Simplify User Experience

Improve platform design to ensure user-friendly navigation, seamless donation processes, and mobile responsiveness. A well-designed interface enhances usability, encouraging both tech-savvy and less digitally inclined users to contribute.

### 5. Target High-Income and Educated Segments First

As these groups showed more favorable attitudes, platforms should prioritize them in initial campaigns to build a loyal contributor base. This group can also serve as early adopters and brand advocates to influence others.

### 6. Use Emotional and Visual Appeals

Emotional connection plays a key role in contribution decisions. Campaigns should incorporate compelling storytelling, images, and videos that depict the real impact of donations on environmental change.

#### **7. Offer Incentives and Recognition**

Introducing small non-monetary incentives like digital badges, certificates, or public acknowledgment can motivate repeated contributions. Gamification strategies may also increase engagement.

#### **8. Engage Communities Through Local Partnerships**

Partner with NGOs, environmental activists, and local communities to create region-specific campaigns. This grassroots approach fosters community involvement and ensures campaign authenticity.

#### **9. Monitor and Evaluate Campaign Performance**

Platforms should use analytics to monitor user behavior, campaign success rates, and donor engagement. Insights from data can help refine future strategies for improved participation.

#### **10. Policy Support and Regulation**

Collaboration with government bodies to set clear crowdfunding policies and provide tax benefits for contributors could enhance credibility and widen participation.

By implementing these recommendations, crowdfunding platforms and environmental organizations can effectively mobilize resources, broaden their donor base, and make a meaningful impact on sustainability efforts in India and beyond.

#### **7. Limitations of the Study**

While this study provides valuable insights into consumer awareness and attitudes toward crowdfunding for environmental projects, several limitations must be acknowledged:

##### **1. Limited Geographic Scope:**

The data was collected from a specific demographic region or set of respondents, which may not fully represent the broader population across India. Therefore, the findings may not be generalizable to all geographic locations or cultural contexts.

##### **2. Sample Size Constraints:**

Although 200 respondents were surveyed, a larger and more diverse sample could enhance the robustness of statistical analysis and increase the generalizability of results.

##### **3. Self-Reported Data:**

The study relies on self-reported responses, which are subject to personal bias, social desirability, and inaccurate self-assessment. Respondents may have over- or under-reported their awareness or attitudes toward environmental crowdfunding.

##### **4. Cross-Sectional Design:**

The research adopts a cross-sectional approach, capturing data at a single point in time. This limits the ability to observe changes in awareness or perception over time or to infer causal relationships.

##### **5. Limited Depth on Platform-Specific Analysis:**

While the study assesses general awareness and perception of environmental crowdfunding platforms, it does not deeply analyze the impact of specific platforms (e.g., Fueladream, Ketto, Milaap), which could provide more nuanced insights.

##### **6. Exclusion of Psychological and Behavioral Factors:**

Factors such as environmental values, digital literacy, risk perception, or past donation behavior were not included, which could potentially influence an individual's willingness to support environmental crowdfunding initiatives.

##### **7. Tool Limitations:**

The study employed basic descriptive and inferential statistical tools (e.g., Chi-Square, Correlation) using SPSS. More advanced modeling techniques such as regression analysis or structural equation modeling (SEM) could offer deeper insights into the relationship between variables.

#### **8. Further Scope of the Study**

The current study lays a foundation for understanding public perception, awareness, and demographic influences on crowdfunding for environmental causes. However, there is significant scope to extend and deepen this research in future studies:

##### **1. Longitudinal Studies:**

Future research could adopt a longitudinal approach to track changes in awareness, attitudes, and behavior over time, especially as environmental concerns and crowdfunding awareness grow.

##### **2. Comparative Platform Analysis:**

A comparative analysis of popular crowdfunding platforms (such as Fueladream, Ketto, Milaap) could be undertaken to evaluate platform-specific credibility, reach, success rate, and user satisfaction.

### 3. Behavioral Intention Models:

The inclusion of models like the Theory of Planned Behavior (TPB) or Technology Acceptance Model (TAM) could help in understanding psychological and behavioral predictors of willingness to contribute to environmental crowdfunding projects.

### 4. Inclusion of Additional Variables:

Future studies can explore other influencing factors such as digital literacy, environmental concern, past donation experience, trust in online platforms, and social influence.

### 5. Broader Demographic Representation:

Expanding the study to include participants from various geographic, linguistic, and socio-economic backgrounds across India would enhance the representativeness and generalizability of the findings.

### 6. Use of Qualitative Methods:

In-depth interviews or focus group discussions could be used to gain richer insights into individual motivations, perceptions, and barriers related to contributing to environmental crowdfunding.

### 7. Impact Assessment of Campaigns:

Future research can assess the real-world impact and transparency of crowdfunded environmental projects to evaluate their effectiveness, credibility, and sustainability.

### 8. Integration with FinTech Innovations:

Exploring how emerging technologies like blockchain, digital wallets, and AI-driven platforms are shaping or can enhance environmental crowdfunding campaigns offers a dynamic and relevant research avenue.

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