



Influences on student intention and behaviour towards environmental sustainability

A Study on Psychological and Contextual Factors

Incharge Professor: Prof. Mamoni Ma'am

Group No 2

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Introduction

Environmental sustainability is crucial for preserving natural resources, protecting ecosystems, and ensuring a habitable planet for future generations. It addresses global challenges like climate change, pollution, and biodiversity loss, promoting a balance between economic growth and ecological health.

Sustainable practices not only safeguard the environment but also enhance quality of life, public health, and long-term economic stability.

Students as Change Agents: Students play a critical role in driving sustainable practices by adopting eco-friendly behaviours, advocating for environmental policies, and influencing their communities through awareness campaigns and initiatives.

Problem Statement:

Gap between sustainability intentions and behaviors.

Objectives:

Identify key factors influencing sustainability intentions and behaviors.

Propose actionable strategies for promoting sustainability.

Literature Review

Theories:

&

List of Reference Research Papers:

1.) Mind The Gap: why do people act environmentally and what are the barriers to pro-environmental behaviour?

https://www.researchgate.net/publication/235363126_Mind_the_Gap_Why_Do_People_Act_Environmentally_and_What_Are_the_Barriers_to_Pro-Environmental_Behavior?enrichId=rgreq-6fcbb65778f1c77db636366184147a506-XXX&enrichSource=Y292ZXJQYWdlOzIzNTM2MzEyNjtBUzoyNTM5MDc2NjY0Njg4NjRA MTQzMzU0NzcxMzk3NQ%3D%3D&el=1_x_3&esc=publicationCoverPdf

2.) Twenty Years after Hines, Hungerford and Tomera: A new meta-analysis of psycho-social determinants of pro-environmental behaviour.

https://www.researchgate.net/publication/222519254_Twenty_years_after_Hines_Hungerford_and_Tomera_A_new_meta-analysis_of_psychosocial_determinants_of_pro-environmentalBehaviour?enrichId=rgreq-7aeebcdbf9a832a83d8e4abe6219a6d6-XXX&enrichSource=Y292ZXJQYWdlOzlyMjUxOTI1NDtBUzo5OTAzNzgwMTAzNzQxNDZA

MTYxMzEzNTkyNjI4Ng%3D%3D&el=1_x_3&_esc=publicationCoverPdf

3.) The Theory of Planned Behaviour

https://www.researchgate.net/publication/272790646_The_Theory_of_Planned_Behaviour?enrichId=rreq-ac636d2a33c2b749894a565d6c6d3f6c-XXX&enrichSource=Y292ZXJQYWdlOzl3Mjc5MDY0NjtBUzo3OTA4MzE4Mzc0OTUyOThAMTU2NTU2MDQxMTg5MA%3D%3D&el=1_x_3&_esc=publicationCoverPdf

Theory of Planned Behaviour (TPB)

The **Theory of Planned Behavior (TPB)** is a psychological framework that explains how attitudes, subjective norms, and perceived behavioral control influence an individual's intentions and behaviors. It posits that **intentions** are the strongest predictor of behavior, shaped by:

1. **Attitudes** (positive or negative evaluation of the behavior),
 2. **Subjective Norms** (perceived social pressure), and
 3. **Perceived Behavioral Control** (belief in one's ability to perform the behavior).
- TPB is widely used to predict and understand behaviors in various domains, including environmental sustainability.

Value-Belief-Norm Theory

Value-Belief-Norm Theory: Proposes that environmental behaviors are driven by personal values, beliefs about environmental threats, and a sense of moral obligation to act.

The Key Idea is that the Individuals are more likely to engage in sustainable actions if they believe their actions can make a difference and feel a moral duty to protect the environment.

Gaps:

Lack of focus on students.

Limited research on tech in sustainability.

Few studies on influences on student behaviour.

Literature Review (cont..)

Psychological Factors:

- Example: Ajzen (1991) found that even with strong intentions, behaviours may not follow due to external barriers or lack of control.

Contextual Factors:

- Example: Kollmuss & Agyeman (2002) emphasize the role of external factors like accessibility and convenience in bridging the intention-behaviour gap.

Actionable Strategies:

- Example: Bamberg & Möser (2007) highlight the importance of combining information-based and structural interventions to promote sustainable behaviours.

Methodology (phase 1: literature review and Hypothesis formation)

Hypothesis 1 (Psychological Factors)

"Students with stronger positive attitudes toward environmental sustainability are more likely to translate their intentions into actual sustainable behaviours."

Hypothesis 2 (Contextual Factors)

"Perceived behavioural control and accessibility of resources significantly influence the gap between students' intentions and their adoption of sustainable practices."

Hypothesis 3 (Social Norms)

"Students who perceive stronger social norms supporting sustainability are more likely to engage in sustainable behaviours, reducing the intention-behaviour gap."

Hypothesis 4 (Institutional Support)

"Educational institutions that provide robust sustainability programs and infrastructure positively impact students' adoption of sustainable practices."

Hypothesis 5 (Demographic Factors)

"Demographic factors such as age, gender, and field of study moderate the relationship between students' intentions and their sustainable behaviours."

Problem Statement:

What factors influence the gap between students' intentions and actual behaviours toward sustainable practices, and how can this gap be addressed?

1. Objective 1:

To identify the psychological factors (e.g., attitudes, perceived behavioural control) that contribute to the gap between students' intentions and actual behaviours toward sustainable practices.

2. Objective 2:

To analyse the contextual factors (e.g., social norms, institutional support, accessibility of resources) that influence students' adoption of sustainable behaviours.

3. Objective 3:

To propose actionable strategies for educational institutions and policymakers to bridge the intention-behaviour gap among students.

Defining Target Group:

Primary Target Group:

Students in Higher Education: Undergraduate, postgraduate, and PhD

students from diverse fields.

Age Group: 18–30 years.

Geographical Scope: Students from India.

Secondary Target Group:

Educational Institutions: Universities, colleges, and schools.

Policymakers: Organizations or individuals involved in shaping sustainability policies for educational institutions.

Questionnaire

Section A: Demographics

1. Age:

- Below 18
- 18–22
- 23–27
- Above 27

2. Gender:

- Male
- Female

3. Experience Level:

- Nil
- Intern/Freelancing
- Job/College
- Other

4. Field of Study:

- Engineering
- Business

- Sciences
- Humanities
- Other (please specify)

5. Annual Household Income (if applicable):

- Below ₹5,00,000
- ₹5,00,000–₹10,00,000
- Above ₹10,00,000
- Prefer not to say

Section B: Constructs

1. Attitudes Toward Sustainability

1. I believe adopting sustainable practices is important for the environment.
2. I feel responsible for reducing my environmental impact.
3. I am willing to change my lifestyle to be more sustainable.

2. Perceived Behavioural Control

1. I find it easy to adopt sustainable practices in my daily life.
2. I have access to the resources needed to live sustainably.
3. I feel confident in my ability to contribute to environmental sustainability.

3. Social Norms

1. Most people who are important to me think I should adopt sustainable practices.
2. My peers encourage me to be environmentally conscious.
3. Society expects individuals to contribute to environmental sustainability.

4. Institutional Support

1. My educational institution provides adequate resources for sustainable practices (e.g., recycling bins, eco-friendly initiatives).
2. My institution encourages students to participate in sustainability programs.
3. I am aware of sustainability-related courses or workshops offered by my institution.

5. Behavioural Intentions

1. I intend to use sustainable products in the future.
2. I plan to participate in environmental sustainability initiatives.
3. I am likely to recommend sustainable practices to others.

6. Actual Sustainable Behaviours

1. I regularly use reusable bags, bottles, or containers.
2. I actively participate in recycling or waste reduction programs.
3. I consciously reduce my energy and water consumption.

Other Section:

1. Environmental Awareness

1. I am well-informed about current environmental issues (e.g., climate change, pollution).
2. I regularly seek information about sustainability practices.
3. I understand the long-term benefits of adopting sustainable behaviours.

2. Perceived Ease of Use

1. Sustainable products and services are user-friendly and convenient.
2. I find it easy to incorporate sustainable habits into my daily routine.
3. Technology makes it easier for me to adopt sustainable practices (e.g., apps for recycling, energy tracking).

3. Barriers to Sustainability

7. The high cost of sustainable products prevents me from using them.
8. Lack of infrastructure (e.g., recycling bins, public transport) makes it difficult to live sustainably.
9. I find it challenging to change my habits to be more environmentally friendly.

5-point Likert scale: 1 = Strongly Disagree, 5 = Strongly Agree

1. I believe adopting sustainable practices is important for the environment.
2. I feel responsible for reducing my environmental impact.
3. I am willing to change my lifestyle to be more sustainable.
4. I find it easy to adopt sustainable practices in my daily life.

5. I have access to the resources needed to live sustainably.
6. I feel confident in my ability to contribute to environmental sustainability.
7. Most people who are important to me think I should adopt sustainable practices.
8. My peers encourage me to be environmentally conscious.
9. Society expects individuals to contribute to environmental sustainability.
10. My educational institution provides adequate resources for sustainable practices.
11. My institution encourages students to participate in sustainability programs.

Methodology (Steps)

Research Design

Quantitative survey-based study.

Sample Size:

385+ students: 407 to be exact.

Data Collection:

Online survey using Google Forms.

Variables:

Independent: Attitudes, perceived control, social norms.

Dependent: Behavioral intentions, actual behaviors.

https://docs.google.com/spreadsheets/d/13ZcNmpQJIEKqVFEMqUeBfjxKkwmON7DdgW7_til_j3E/edit?usp=sharing

Measurement Model

Constructs and Indicators:

Mega Construct 1.

Mega Construct 2.

Sub constructs:

Attitudes: Q1, Q2, Q3.

Perceived Control: Q4, Q5, Q6.

Social Norms: Q7, Q8, Q9.

Calculated variance for each Q (column) and covariance for each combination for ensuring internal reliability with Cronbach's Alpha

Reliability and Validity:

Cronbach's Alpha: ≥ 0.7 .

Composite Reliability (CR): ≥ 0.7 .

Average Variance Extracted (AVE): ≥ 0.5 .

p value < 0.5

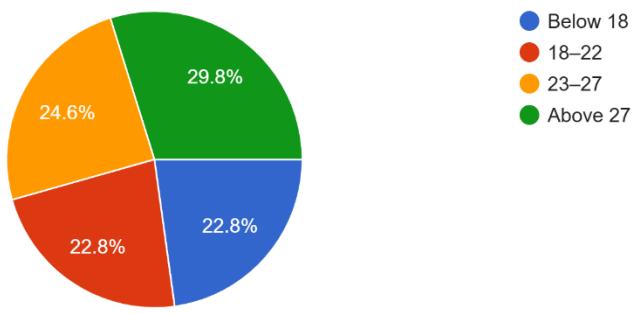
Key Findings & Graphical Analysis:

H1: Supported ($p < 0.05$). H2: Supported ($p < 0.05$).

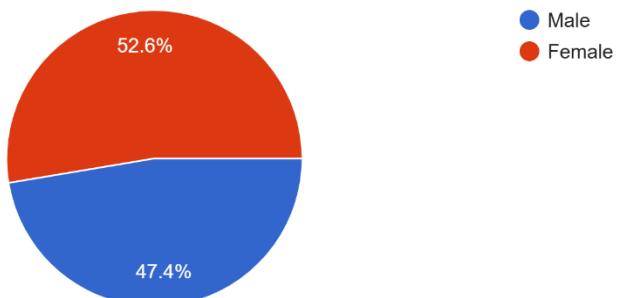
Graphs & Pie Charts: Pilot Test and Real Survey:

Pilot Test: 57 Responses.

1. Age:
57 responses

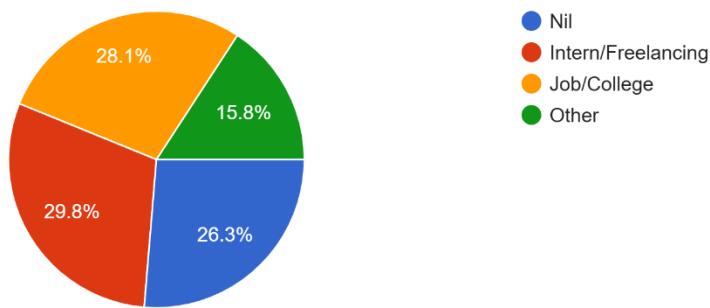


2. Gender:
57 responses



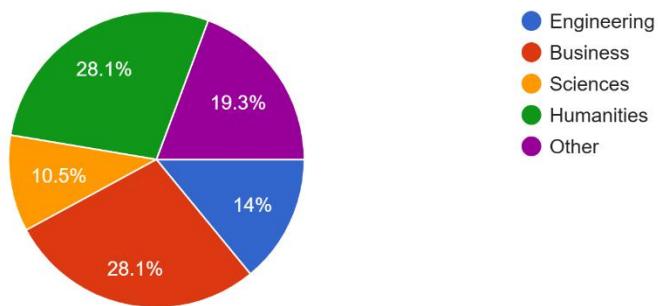
3. Experience Level:

57 responses



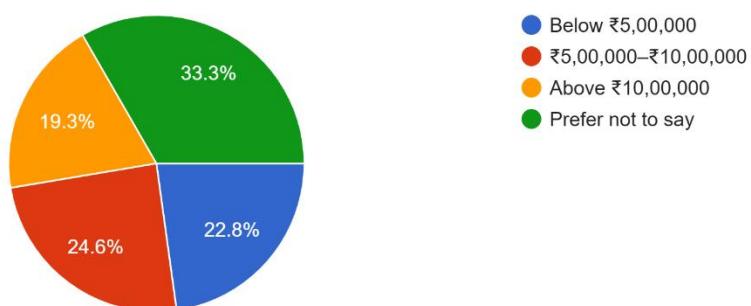
4. Field of Study:

57 responses



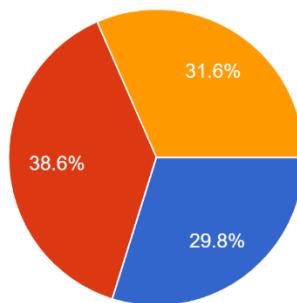
5. Annual Household Income (if applicable):

57 responses



1. Attitudes Toward Sustainability: Select best choice.

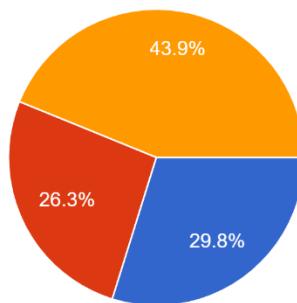
57 responses



- 1. I believe adopting sustainable practices is important for the environment.
- 2. I feel responsible for reducing my environmental impact.
- 3. I am willing to change my lifestyle to be more sustainable.

2. Perceived Behavioral Control: Select best choice.

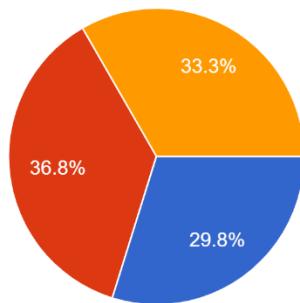
57 responses



- 1. I find it easy to adopt sustainable practices in my daily life.
- 2. I have access to the resources needed to live sustainably.
- 3. I feel confident in my ability to contribute to environmental sustainability.

3. Social Norms: Select best choice.

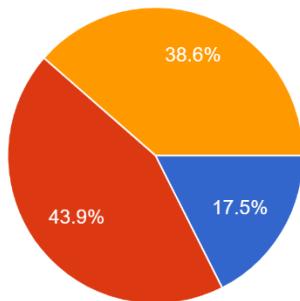
57 responses



- 1. Most people who are important to me think I should adopt sustainable practices.
- 2. My peers encourage me to be environmentally conscious.
- 3. Society expects individuals to contribute to environmental sustainability.

4. Institutional Support: Select best choice.

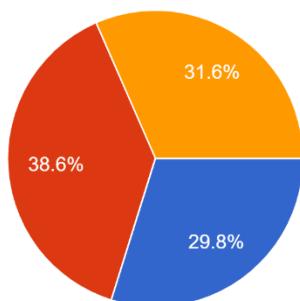
57 responses



- 1. My educational institution provides adequate resources for sustainable practices (e.g., recycling bins, eco-friendly initiatives).
- 2. My institution encourages students to participate in sustainability programs.
- 3. I am aware of sustainability-related courses or workshops offered by my institution.

5. Behavioral Intentions: Select best choice.

57 responses



- 1. I intend to use sustainable products in the future.
- 2. I plan to participate in environmental sustainability initiatives.
- 3. I am likely to recommend sustainable practices to others.

6. Actual Sustainable Behaviors: Select best choice.

57 responses



- 1. I regularly use reusable bags, bottles, or containers.
- 2. I actively participate in recycling or waste reduction programs.
- 3. I consciously reduce my energy and water consumption.

1. Environmental Awareness: Select best choice.

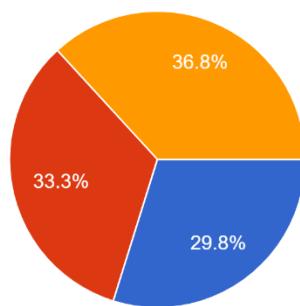
57 responses



- 1. I am well-informed about current environmental issues (e.g., climate change, pollution).
- 2. I regularly seek information about sustainability practices.
- 3. I understand the long-term benefits of adopting sustainable behaviours.

2. Perceived Ease of Use: Select best choice.

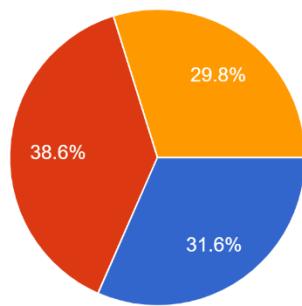
57 responses



- 1. Sustainable products and services are user-friendly and convenient.
- 2. I find it easy to incorporate sustainable habits into my daily routine.
- 3. Technology makes it easier for me to adopt sustainable practices (e.g., apps for recycling, energy tracking).

3. Barriers to Sustainability: Select best choice.

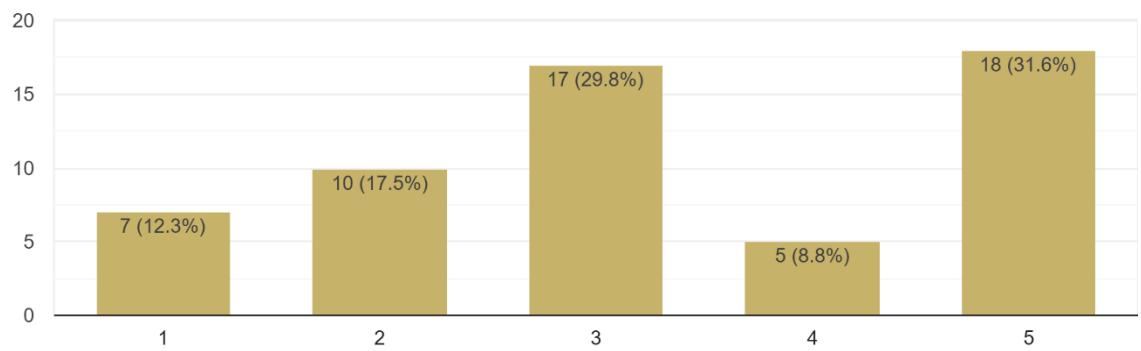
57 responses



- 1. The high cost of sustainable products prevents me from using them.
- 2. Lack of infrastructure (e.g., recycling bins, public transport) makes it difficult to live sustainably.
- 3. I find it challenging to change my habits to be more environmentally friendly.

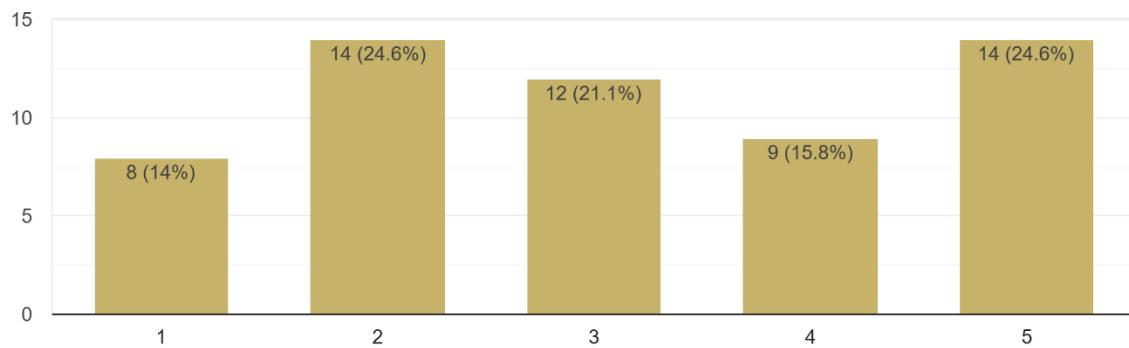
1. I believe adopting sustainable practices is important for the environment.

57 responses



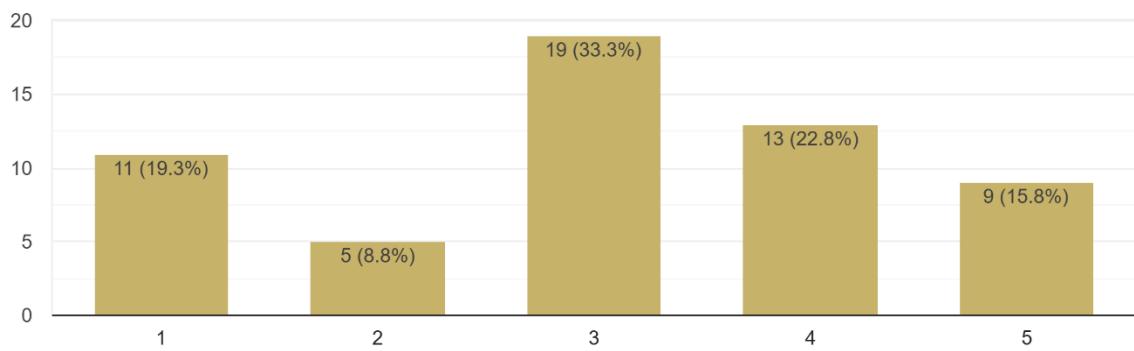
2. I feel responsible for reducing my environmental impact.

57 responses



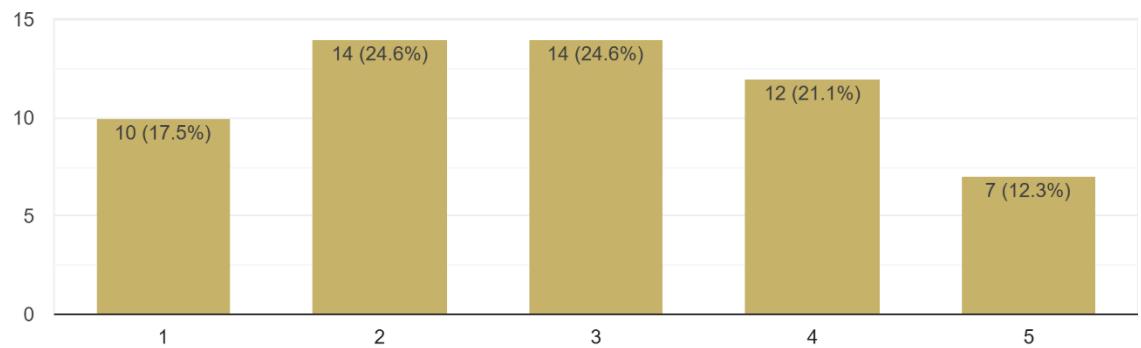
3. I am willing to change my lifestyle to be more sustainable.

57 responses



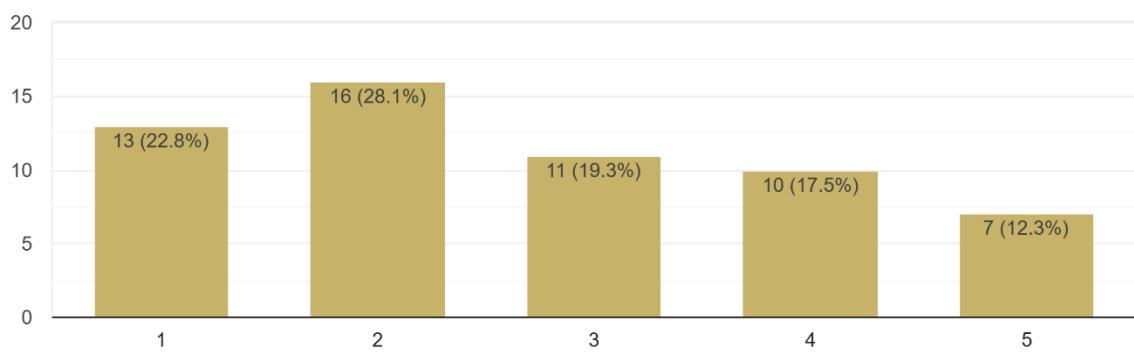
4. I find it easy to adopt sustainable practices in my daily life.

57 responses



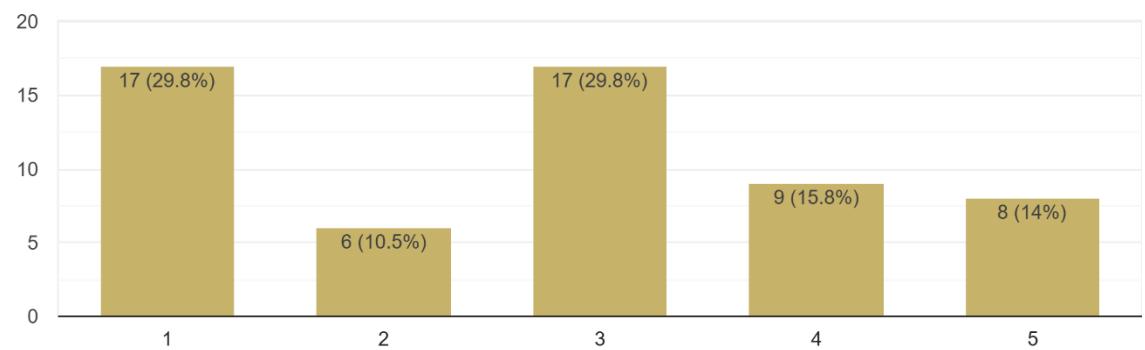
5. I have access to the resources needed to live sustainably.

57 responses



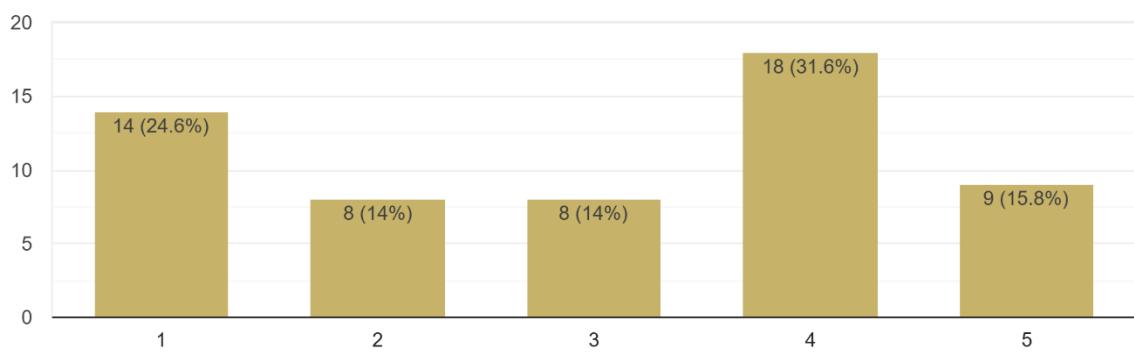
6. I feel confident in my ability to contribute to environmental sustainability.

57 responses



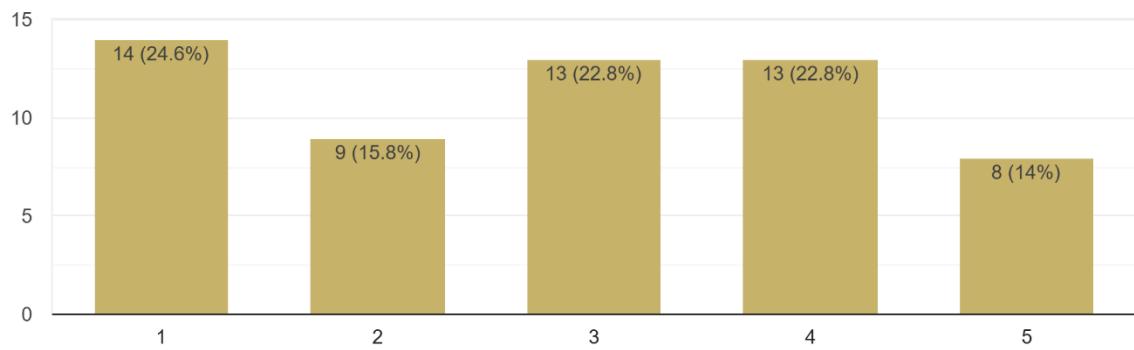
7. Most people who are important to me think I should adopt sustainable practices.

57 responses



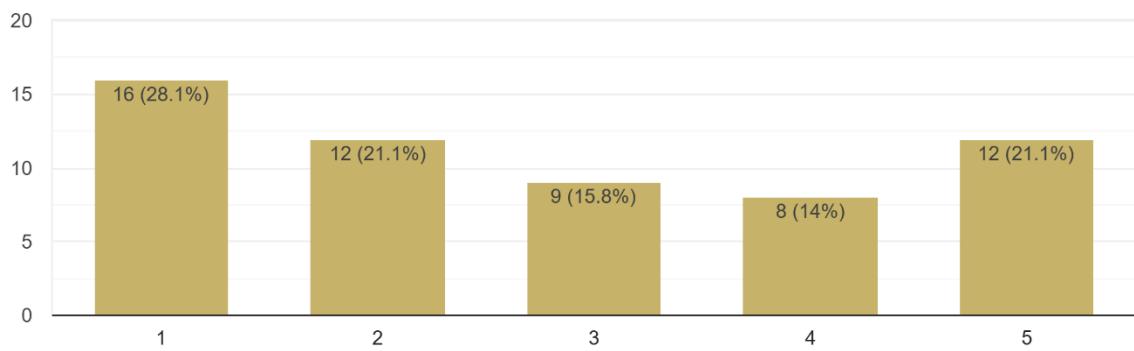
8. My peers encourage me to be environmentally conscious.

57 responses



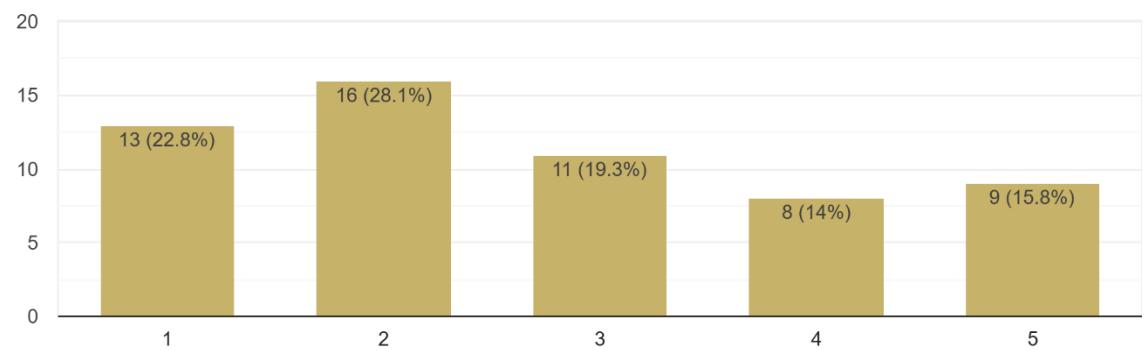
9. Society expects individuals to contribute to environmental sustainability.

57 responses



10. My educational institution provides adequate resources for sustainable practices.

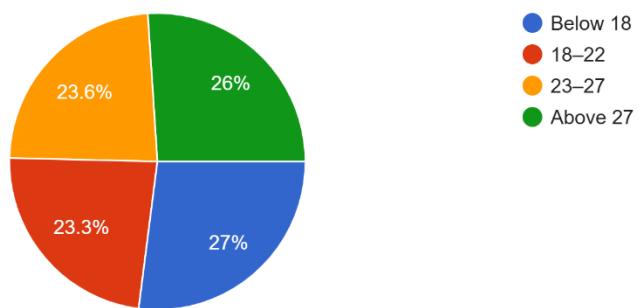
57 responses



Real Survey

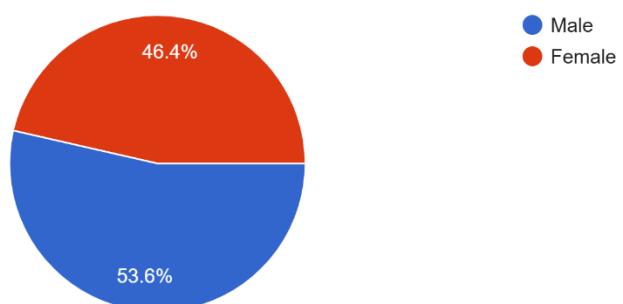
1. Age:

407 responses



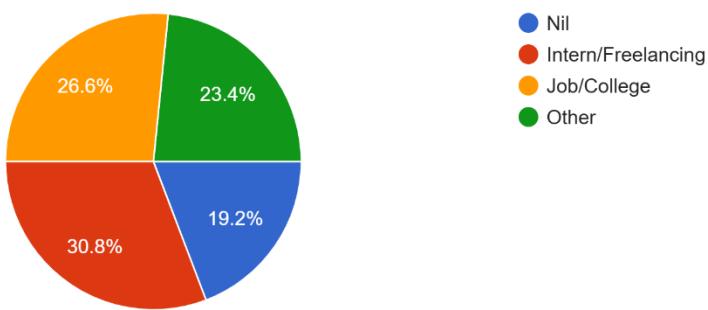
2. Gender:

407 responses



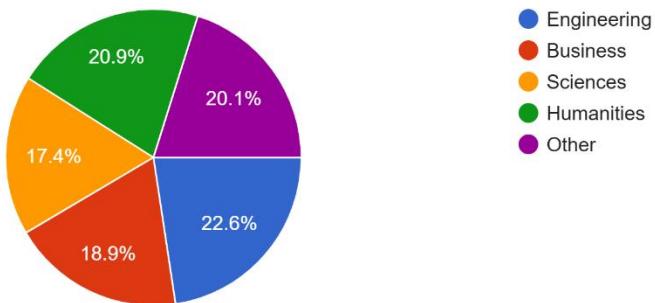
3. Experience Level:

406 responses



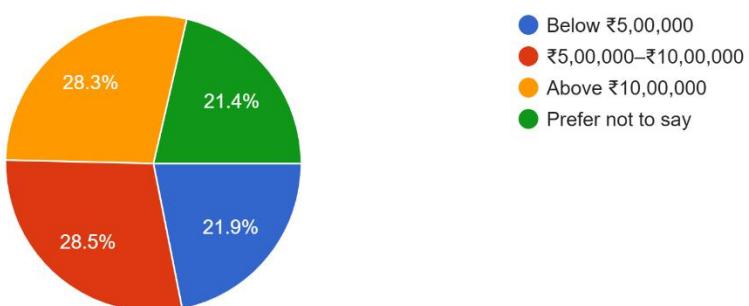
4. Field of Study:

407 responses



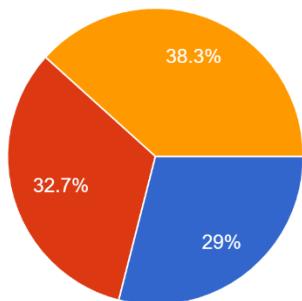
5. Annual Household Income (if applicable):

407 responses



1. Attitudes Toward Sustainability: Select best choice.

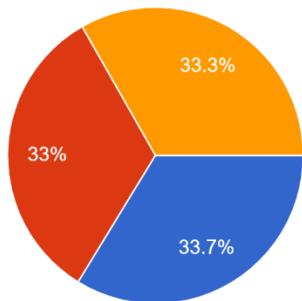
407 responses



- 1. I believe adopting sustainable practices is important for the environment.
- 2. I feel responsible for reducing my environmental impact.
- 3. I am willing to change my lifestyle to be more sustainable.

2. Perceived Behavioral Control: Select best choice.

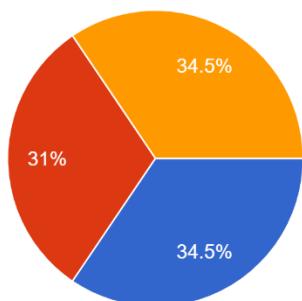
406 responses



- 1. I find it easy to adopt sustainable practices in my daily life.
- 2. I have access to the resources needed to live sustainably.
- 3. I feel confident in my ability to contribute to environmental sustainability.

3. Social Norms: Select best choice.

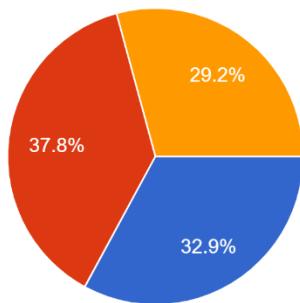
406 responses



- 1. Most people who are important to me think I should adopt sustainable practices.
- 2. My peers encourage me to be environmentally conscious.
- 3. Society expects individuals to contribute to environmental sustainability.

4. Institutional Support: Select best choice.

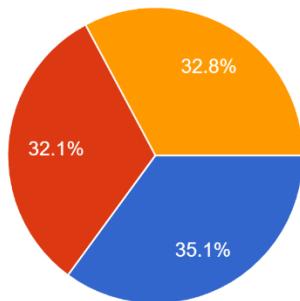
407 responses



- 1. My educational institution provides adequate resources for sustainable practices (e.g., recycling bins, eco-friendly initiatives).
- 2. My institution encourages students to participate in sustainability programs.
- 3. I am aware of sustainability-related courses or workshops offered by my institution.

5. Behavioral Intentions: Select best choice.

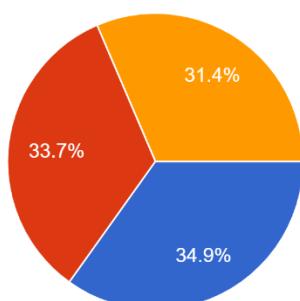
405 responses



- 1. I intend to use sustainable products in the future.
- 2. I plan to participate in environmental sustainability initiatives.
- 3. I am likely to recommend sustainable practices to others.

6. Actual Sustainable Behaviors: Select best choice.

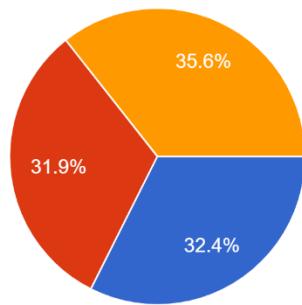
407 responses



- 1. I regularly use reusable bags, bottles, or containers.
- 2. I actively participate in recycling or waste reduction programs.
- 3. I consciously reduce my energy and water consumption.

1. Environmental Awareness: Select best choice.

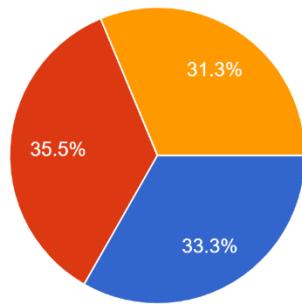
404 responses



- 1. I am well-informed about current environmental issues (e.g., climate change, pollution).
- 2. I regularly seek information about sustainability practices.
- 3. I understand the long-term benefits of adopting sustainable behaviours.

2. Perceived Ease of Use: Select best choice.

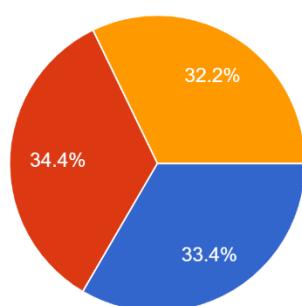
406 responses



- 1. Sustainable products and services are user-friendly and convenient.
- 2. I find it easy to incorporate sustainable habits into my daily routine.
- 3. Technology makes it easier for me to adopt sustainable practices (e.g., apps for recycling, energy tracking).

3. Barriers to Sustainability: Select best choice.

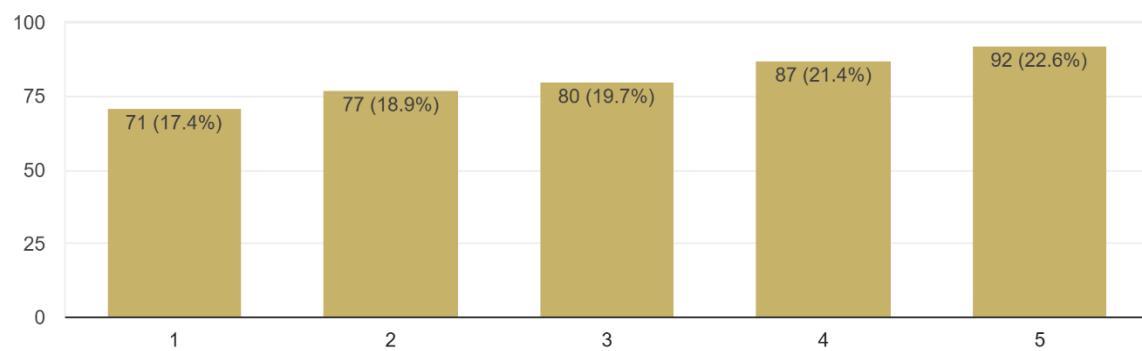
407 responses



- 1. The high cost of sustainable products prevents me from using them.
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- 3. I find it challenging to change my habits to be more environmentally friendly.

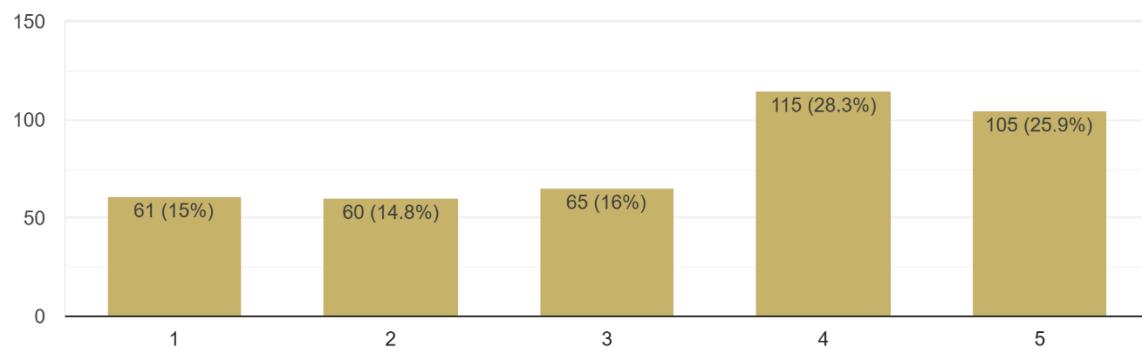
1. I believe adopting sustainable practices is important for the environment.

407 responses



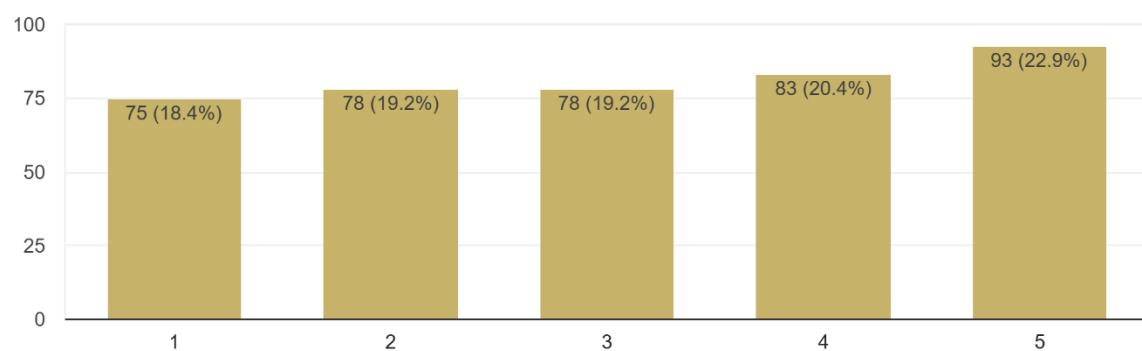
2. I feel responsible for reducing my environmental impact.

406 responses



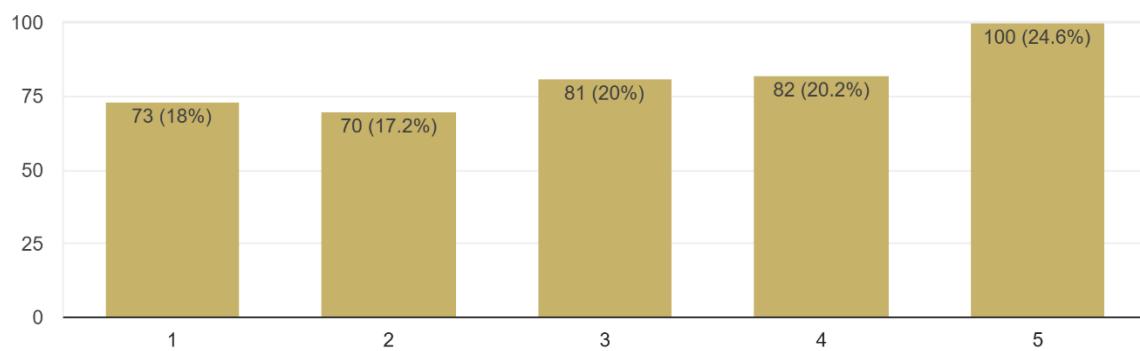
3. I am willing to change my lifestyle to be more sustainable.

407 responses



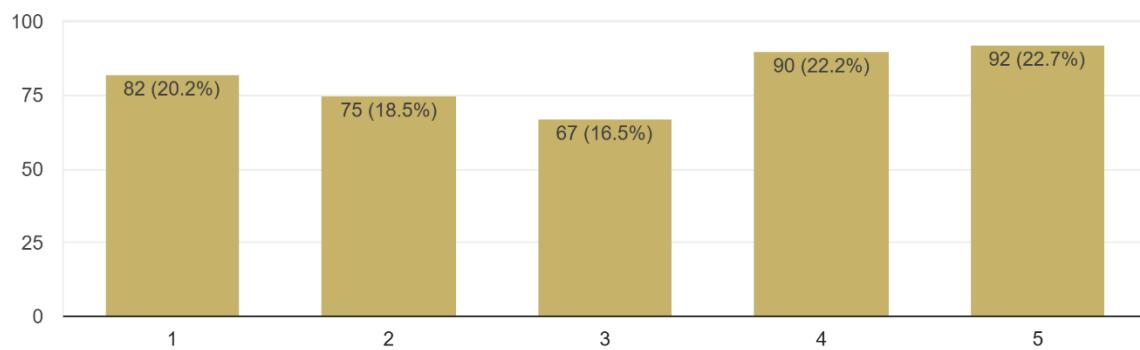
4. I find it easy to adopt sustainable practices in my daily life.

406 responses



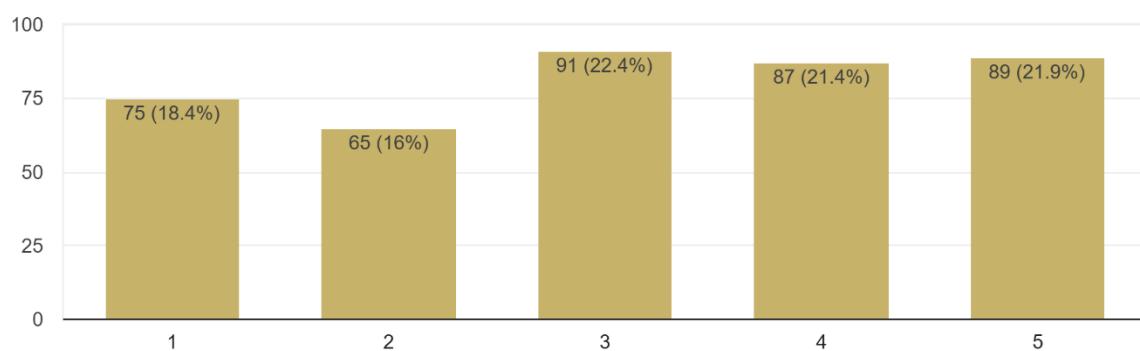
5. I have access to the resources needed to live sustainably.

406 responses



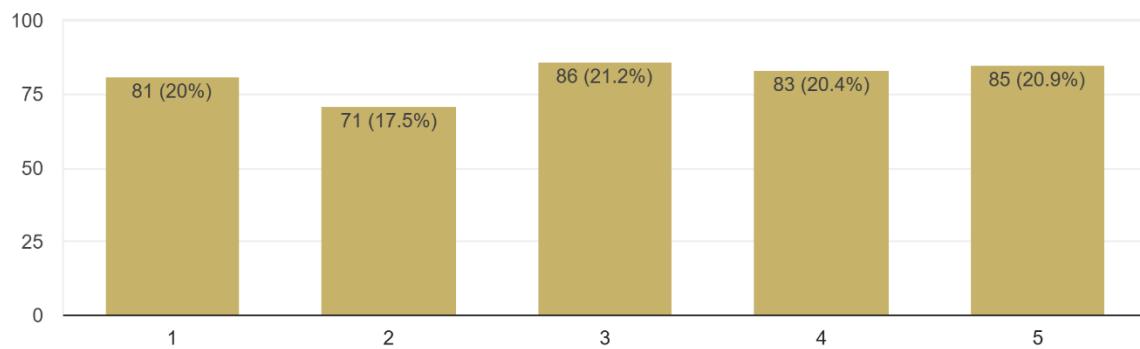
6. I feel confident in my ability to contribute to environmental sustainability.

407 responses



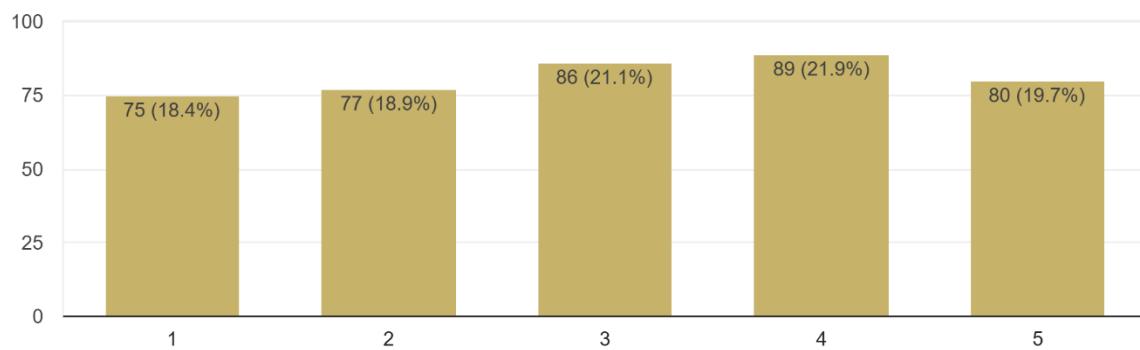
7. Most people who are important to me think I should adopt sustainable practices.

406 responses



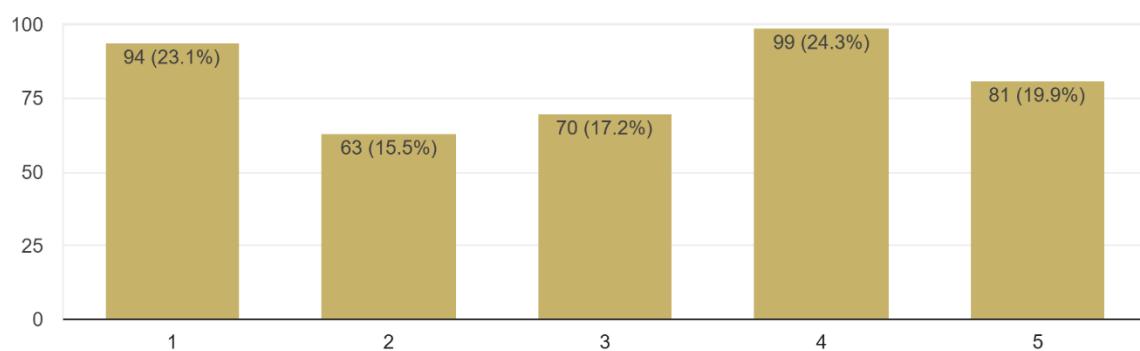
8. My peers encourage me to be environmentally conscious.

407 responses



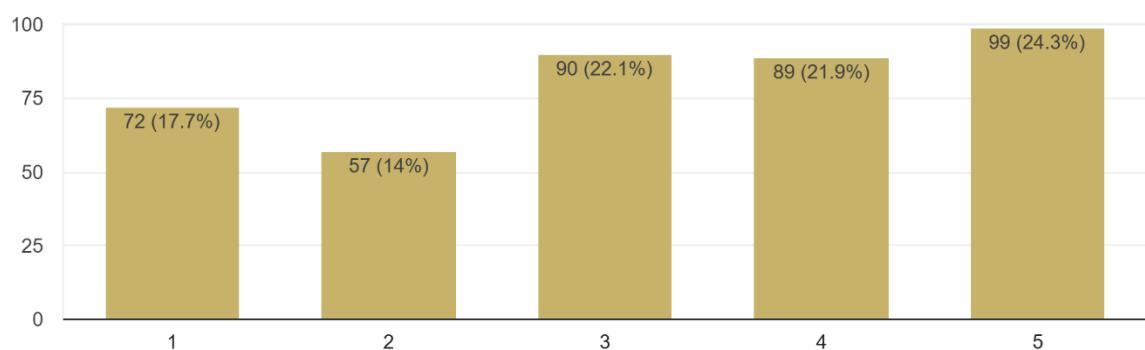
9. Society expects individuals to contribute to environmental sustainability.

407 responses



10. My educational institution provides adequate resources for sustainable practices.

407 responses



Find and replace

X

Find

Below 18

Replace with

1

Search

This sheet ▾

- Match case
- Match entire cell contents
- Search using regular expressions [Help](#)
- Also search within formulae
- Also search within links

Replaced 110 instances of Below 18 with 1

Find

Replace

Replace all

Done

Find and replace

X

Find

18–22

Replace with

2

Search

This sheet ▾

- Match case
- Match entire cell contents
- Search using regular expressions [Help](#)
- Also search within formulae
- Also search within links

Replaced 95 instances of 18–22 with 2

Find

Replace

Replace all

Done

Find and replace

X

Find

23–27

Replace with

3

Search

This sheet ▾

- Match case
- Match entire cell contents
- Search using regular expressions [Help](#)
- Also search within formulae
- Also search within links

Replaced 96 instances of 23–27 with 3

Find

Replace

Replace all

Done

Find and replace

X

Find

Above 27

Replace with

4

Search

This sheet ▾

- Match case
- Match entire cell contents
- Search using regular expressions [Help](#)
- Also search within formulae
- Also search within links

Replaced 106 instances of Above 27 with 4

Find

Replace

Replace all

Done

Find and replace

X

Find

Male

Replace with

1

Search

This sheet ▾

- Match case
- Match entire cell contents
- Search using regular expressions [Help](#)
- Also search within formulae
- Also search within links

Replaced 407 instances of Male with 1

Find

Replace

Replace all

Done

Find and replace

X

Find

Fe1

Replace with

2

Search

This sheet ▾

- Match case
- Match entire cell contents
- Search using regular expressions [Help](#)
- Also search within formulae
- Also search within links

Replaced 189 instances of Fe1 with 2

Find

Replace

Replace all

Done

Find and replace

X

Find

Nil

Replace with

1

Search

This sheet ▾

- Match case
- Match entire cell contents
- Search using regular expressions [Help](#)
- Also search within formulae
- Also search within links

Replaced 78 instances of Nil with 1

Find

Replace

Replace all

Done

Find and replace

X

Find Intern/Freelancing

Replace with 2

Search This sheet ▾

- Match case
- Match entire cell contents
- Search using regular expressions [Help](#)
- Also search within formulae
- Also search within links

Replaced 125 instances of Intern/Freelancing with 2

Find

Replace

Replace all

Done

Find and replace

X

Find

Job/College

Replace with

3

Search

This sheet ▾

- Match case
- Match entire cell contents
- Search using regular expressions [Help](#)
- Also search within formulae
- Also search within links

Replaced 108 instances of Job/College with 3

Find

Replace

Replace all

Done

Find and replace

X

Find

Engineering

Replace with

1

Search

This sheet ▾

- Match case
- Match entire cell contents
- Search using regular expressions [Help](#)
- Also search within formulae
- Also search within links

Replaced 92 instances of Engineering with 1

Find

Replace

Replace all

Done

Find and replace

X

Find

Other

Replace with

5

Search

This sheet ▾

- Match case
- Match entire cell contents
- Search using regular expressions [Help](#)
- Also search within formulae
- Also search within links

Replaced 215 instances of Other with 5

Find

Replace

Replace all

Done

Find and replace

X

Find

Replace with

Search

- Match case
- Match entire cell contents
- Search using regular expressions [Help](#)
- Also search within formulae
- Also search within links

Replaced 89 instances of Below ₹5,00,000 with 1

[Find](#)

[Replace](#)

[Replace all](#)

[Done](#)

Find and replace

X

Find ₹5,00,000–₹10,00,000

Replace with 2

Search This sheet ▾

- Match case
- Match entire cell contents
- Search using regular expressions [Help](#)
- Also search within formulae
- Also search within links

Replaced 116 instances of ₹5,00,000–₹10,00,000 with 2

Find

Replace

Replace all

Done

Find and replace

X

Find

Replace with

Search

- Match case
- Match entire cell contents
- Search using regular expressions [Help](#)
- Also search within formulae
- Also search within links

Replaced 115 instances of Above ₹10,00,000 with 3

Find and replace

X

Find

Prefer not to say

Replace with

4

Search

This sheet ▾

- Match case
- Match entire cell contents
- Search using regular expressions [Help](#)
- Also search within formulae
- Also search within links

Replaced 87 instances of Prefer not to say with 4

Find

Replace

Replace all

Done

Find and replace

X

Find

1. I believe adopting sustainable practices

Replace with

1

Search

This sheet ▾

- Match case
- Match entire cell contents
- Search using regular expressions [Help](#)
- Also search within formulae
- Also search within links

Replaced 119 instances of 1. I believe adopting sustainable practices i...

Find

Replace

Replace all

Done

Find and replace

X

Find

2. I feel responsible for reducing my enviro

Replace with

2

Search

This sheet ▾

- Match case
- Match entire cell contents
- Search using regular expressions [Help](#)
- Also search within formulae
- Also search within links

Replaced 134 instances of 2. I feel responsible for reducing my environ...

Find

Replace

Replace all

Done

Find and replace

X

Find

Replace with

Search

- Match case
- Match entire cell contents
- Search using regular expressions [Help](#)
- Also search within formulae
- Also search within links

Replaced 157 instances of 3. I am willing to change my lifestyle to be ...

Find and replace

X

Find

1. I find it easy to adopt sustainable pract

Replace with

1

Search

This sheet ▾

- Match case
- Match entire cell contents
- Search using regular expressions [Help](#)
- Also search within formulae
- Also search within links

Replaced 137 instances of 1. I find it easy to adopt sustainable practice...

Find

Replace

Replace all

Done

Find and replace

X

Find

2. I have access to the resources needed

Replace with

2

Search

This sheet ▾

- Match case
- Match entire cell contents
- Search using regular expressions [Help](#)
- Also search within formulae
- Also search within links

Replaced 134 instances of 2. I have access to the resources needed to ...

Find

Replace

Replace all

Done

Find and replace

X

Find

3. I feel confident in my ability to contribu

Replace with

3

Search

This sheet ▾

- Match case
- Match entire cell contents
- Search using regular expressions [Help](#)
- Also search within formulae
- Also search within links

Replaced 135 instances of 3. I feel confident in my ability to contribute ...

Find

Replace

Replace all

Done

Find and replace

X

Find

1. Most people who are important to me 1

Replace with

1

Search

This sheet ▾

- Match case
- Match entire cell contents
- Search using regular expressions [Help](#)
- Also search within formulae
- Also search within links

Replaced 140 instances of 1. Most people who are important to me thi...

Find

Replace

Replace all

Done

Find and replace

X

Find

2. My peers encourage me to be environn

Replace with

2

Search

This sheet ▾

- Match case
- Match entire cell contents
- Search using regular expressions [Help](#)
- Also search within formulae
- Also search within links

Replaced 126 instances of 2. My peers encourage me to be environme...

Find

Replace

Replace all

Done

Find and replace

X

Find

3. Society expects individuals to contribut^o

Replace with

3

Search

This sheet ▾

- Match case
- Match entire cell contents
- Search using regular expressions [Help](#)
- Also search within formulae
- Also search within links

Replaced 140 instances of 3. Society expects individuals to contribute ...

Find

Replace

Replace all

Done

- N : Number of items (questions) = **19**
- c^- : Average covariance = **0.2599551531**
- v^- : Average variance = **1.378208839**

Final Result

$\alpha=0.8154$

Cronbach's Alpha = 0.8154: This indicates **good reliability** (since $\alpha \geq 0.7$).

CSV import

Project	File name		
Project1	SmartPLS Feed1 - Sheet1		
Delimiter character	Escape character	Locale	Encoding
Comma	None	US (example: 1,000.23)	UTF-8

Cases: 406 Missing: 11 [Bulk change](#)

Name	Missing	Scale	Min	Max
Q1	0	Metric	1.0000	3.0000
Q2	0	Metric	1.0000	3.0000
Q3	1	Metric	1.0000	3.0000
Q4	0	Metric	1.0000	3.0000
Q5	2	Metric	1.0000	3.0000
Q6	0	Metric	1.0000	3.0000
Q7	3	Metric	1.0000	3.0000
Q8	1	Metric	1.0000	3.0000
Q9	0	Metric	1.0000	3.0000
Q10	0	Metric	1.0000	5.0000
Q11	1	Metric	1.0000	5.0000
Q12	0	Metric	1.0000	5.0000
Q13	1	Metric	1.0000	5.0000

Define a [missing value marker](#) if your data file contains missing values.

[Cancel](#) [Import](#)

SmartPLS 4

SmartPLS Edit Themes

Back Setup Add group Generate groups Clear groups Export to Excel / CSV

SmartPLS Feed1 ... Indicators

Indicators 19 Samples 407 Missing values 11

• Indicators **○ Correlations** **○ Data groups** **○ Raw data**

Copy to Excel/Word

	Name	No.	Type	Missing	Mean	Median	Scale min	Scale max	Observed min	Observed max	Standard deviation	Excess kurtosis	Skewness	Cramér-von Mises p value
Q1	1	MET	0	2.093	2.000	1.000	3.000	1.000	3.000	0.815	-1.479	-0.173	0.000	
Q2	2	MET	0	1.998	2.000	1.000	3.000	1.000	3.000	0.819	-1.513	0.005	0.000	
Q3	3	MET	1	2.000	2.000	1.000	3.000	1.000	3.000	0.830	-1.554	0.000	0.000	
Q4	4	MET	0	1.963	2.000	1.000	3.000	1.000	3.000	0.788	-1.388	0.065	0.000	
Q5	5	MET	2	1.978	2.000	1.000	3.000	1.000	3.000	0.824	-1.529	0.041	0.000	
Q6	6	MET	0	1.966	2.000	1.000	3.000	1.000	3.000	0.814	-1.491	0.063	0.000	
Q7	7	MET	3	2.032	2.000	1.000	3.000	1.000	3.000	0.824	-1.530	-0.060	0.000	
Q8	8	MET	1	1.980	2.000	1.000	3.000	1.000	3.000	0.803	-1.452	0.036	0.000	
Q9	9	MET	0	1.988	2.000	1.000	3.000	1.000	3.000	0.810	-1.478	0.022	0.000	
Q10	10	MET	0	3.128	3.000	1.000	5.000	1.000	5.000	1.410	-1.286	-0.117	0.000	
Q11	11	MET	1	3.352	4.000	1.000	5.000	1.000	5.000	1.394	-1.130	-0.406	0.000	
Q12	12	MET	0	3.101	3.000	1.000	5.000	1.000	5.000	1.427	-1.319	-0.066	0.000	
Q13	13	MET	1	3.163	3.000	1.000	5.000	1.000	5.000	1.433	-1.303	-0.151	0.000	
Q14	14	MET	1	3.086	3.000	1.000	5.000	1.000	5.000	1.454	-1.373	-0.102	0.000	
Q15	15	MET	0	3.123	3.000	1.000	5.000	1.000	5.000	1.404	-1.239	-0.145	0.000	
Q16	16	MET	1	3.049	3.000	1.000	5.000	1.000	5.000	1.419	-1.290	-0.067	0.000	
Q17	17	MET	0	3.054	3.000	1.000	5.000	1.000	5.000	1.389	-1.250	-0.069	0.000	
Q18	18	MET	0	3.025	3.000	1.000	5.000	1.000	5.000	1.455	-1.373	-0.105	0.000	
Q19	19	MET	0	3.211	3.000	1.000	5.000	1.000	5.000	1.412	-1.214	-0.237	0.000	

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Reset 100%

SmartPLS 4

SmartPLS Edit Themes

Back Setup Add group Generate groups Clear groups Export to Excel / CSV

SmartPLS Feed1 ... Correlations

Indicators 19 Samples 407 Missing values 11

• Indicators **○ Correlations** **○ Data groups** **○ Raw data**

Copy to Excel/Word

	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19
Q1	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Q2	-0.047	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Q3	-0.022	-0.007	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Q4	0.017	-0.061	0.038	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Q5	0.032	0.029	0.018	-0.032	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Q6	0.064	0.044	-0.044	-0.013	0.010	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Q7	0.043	-0.073	0.069	-0.048	-0.141	0.072	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Q8	-0.057	0.060	0.167	-0.017	0.059	-0.012	-0.048	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Q9	-0.017	0.026	0.000	0.007	-0.045	-0.027	0.012	-0.004	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Q10	0.056	-0.012	0.050	-0.086	0.009	0.019	-0.065	-0.020	0.010	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Q11	0.071	0.023	-0.102	-0.010	-0.058	0.025	-0.014	-0.067	0.018	0.023	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Q12	0.019	0.015	-0.081	-0.139	0.075	0.136	0.033	-0.097	-0.054	-0.010	0.030	1.000	0.000	0.000	0.000	0.000	0.000	0.000	
Q13	0.004	0.051	0.041	0.001	0.015	0.021	-0.053	-0.004	0.035	-0.040	0.041	0.102	1.000	0.000	0.000	0.000	0.000	0.000	
Q14	0.081	0.021	0.033	0.018	0.018	0.028	0.037	-0.052	-0.043	0.043	0.052	0.128	-0.008	1.000	0.000	0.000	0.000	0.000	
Q15	-0.036	0.052	0.004	0.037	0.041	-0.037	0.005	-0.007	-0.072	0.039	0.022	0.044	-0.054	0.020	1.000	0.000	0.000	0.000	
Q16	-0.061	0.049	0.019	-0.084	-0.020	-0.043	-0.037	-0.073	-0.012	0.152	0.083	0.084	0.056	0.054	0.049	1.000	0.000	0.000	
Q17	-0.015	0.084	0.006	-0.000	0.009	-0.009	0.046	-0.076	-0.026	0.068	-0.070	0.054	0.061	0.094	0.017	0.079	1.000	0.000	
Q18	-0.039	-0.080	-0.022	0.074	-0.006	0.003	-0.025	0.026	0.067	0.012	-0.027	0.011	-0.038	0.034	0.044	-0.051	0.075	1.000	
Q19	0.085	0.032	0.025	-0.004	-0.013	-0.004	-0.006	-0.107	0.002	-0.032	0.103	0.089	0.125	0.044	0.106	0.101	0.059	0.044	

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Reset 100%

Limitations

Sample Size:

Limited to 385+ (407) students.

Geographical Scope:

Focused on a single survey.

Methodology:

Reliance on group-reported data.

Conclusions & Key Findings

1. Attitudes and perceived control are the strongest predictors of sustainability intentions and behaviors.
2. Social norms do not significantly influence students' sustainability actions.
3. Behavioral intentions strongly predict actual behaviors.
4. Demographic factors (like gender, field of study) play a moderating role.
5. Barriers like cost and lack of infrastructure hinder sustainable practices.
6. Institutional support enhances students' ability to adopt sustainable behaviors.
7. The measurement model is reliable and valid (Alpha=0.8+, CR \geq 0.7, AVE \geq 0.5).

Future Recommendations

Expand Dataset:

Include more diverse samples.

Explore Additional Variables:

Environmental awareness, moral norms.

Longitudinal Studies:

Track behaviour over time.

Contributions:

Advances understanding of sustainability behavior in students.

Provides practical recommendations for policymakers.

Discussion:

Comparison with Previous Studies:

The positive relationship between attitudes and sustainability intentions aligns with the Theory of Planned Behavior, which emphasizes the role of attitudes in shaping intentions. Also, The significant influence of perceived behavioral control on behavior is consistent with studies by Bamberg & Moser, who found that perceived control is a strong predictor of sustainable actions.

RESULTS & Implications:

Our study focused on attitudes and perceived control for interventions. It also reinforced the importance of attitudes and perceived control in sustainability models while challenging the universal applicability of social norms.

References

- Ajzen, I. (1991). Theory of Planned Behavior.
- Bamberg, S., & Möser, G. (2007). Environmental Psychology.
- Kollmuss, A., & Agyeman, J. (2002). Sustainability Behavior.

Acknowledgments

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Special thanks to our esteemed Professor Dr. Mamoni Banerjee, for her invaluable guidance, insightful feedback, and unwavering support throughout the project. Her expertise and encouragement have been instrumental in shaping this study.

We are also deeply thankful to all our teammates & survey participants who took the time to share their contributions, responses and experiences. Without their cooperation, this research would not have been possible.

Their contributions have provided meaningful insights into the factors influencing student intentions and behaviors toward environmental sustainability.

Finally, we extend our appreciation to our Professor's Teaching Assistant Mr. Suraj Sir and peers for their constructive suggestions and support during the course of this project.

Appendix: Data Analysis

Additional Data:

Survey on Researching & Addressing Student's Intentions vs Actual Behaviors towards Sustainable Practices: Final1

	B	C	D	E	F	G	H	I
1	1. Age:	2. Gender:	3. Experience Level:	4. Field of Study:	5. Annual Household Income (if applicable):	1. Attitudes Toward Sustainability: Select best c	2. Perceived Behavioral Control: Select best c	3. Social Norms: Select best c
2	23-27	Female	Other	Sciences	Above ₹10,00,000	1. I believe adopting sustainable practices is impo.	2. I have access to the resources needed to live s.	3. My peers encourage me to i
3	18-22	Male	Job/College	Business	Below ₹5,00,000	1. I believe adopting sustainable practices is impo.	3. I feel confident in my ability to contribute to en	3. Society expects individuals
4	Below 18	Female	Other	Humanities	Above ₹10,00,000	1. I believe adopting sustainable practices is impo.	2. I have access to the resources needed to live s.	3. Society expects individuals
5	Below 18	Male	Job/College	Humanities	Below ₹5,00,000	2. I feel responsible for reducing my environmental impact.	1. I have access to the resources needed to live s.	1. Most people who are important
6	Below 18	Male	Other	Engineering	Below ₹5,00,000	2. I feel responsible for reducing my environmental impact.	3. I feel confident in my ability to contribute to en	1. Most people who are important
7	18-22	Male	Other	Engineering	Prefer not to say	3. I am willing to change my lifestyle to be more si.	2. I have access to the resources needed to live s.	2. My peers encourage me to i
8	18-22	Male	Nil	Other	₹5,00,000-₹10,00,000	1. I believe adopting sustainable practices is impo.	3. I feel confident in my ability to contribute to en	1. Most people who are important
9	Above 27	Female	Job/College	Other	Above ₹10,00,000	1. I believe adopting sustainable practices is impo.	2. I have access to the resources needed to live s.	2. My peers encourage me to i
10	18-22	Male	Other	Other	Above ₹10,00,000	3. I am willing to change my lifestyle to be more si.	1. I have access to the resources needed to live s.	1. Most people who are important
11	Above 27	Female	Job/College	Business	Prefer not to say	3. I am willing to change my lifestyle to be more si.	2. I have access to the resources needed to live s.	1. Most people who are important
12	18-22	Female	Other	Humanities	Below ₹5,00,000	2. I feel responsible for reducing my environmental impact.	1. I feel it easy to adopt sustainable practices in i.	3. Society expects individuals
13	Below 18	Female	Intern/Freelancing	Other	Above ₹10,00,000	3. I am willing to change my lifestyle to be more si.	2. I have access to the resources needed to live s.	2. My peers encourage me to i
14	23-27	Male	Intern/Freelancing	Other	₹5,00,000-₹10,00,000	3. I am willing to change my lifestyle to be more si.	1. I find it easy to adopt sustainable practices in i.	1. Most people who are important
15	Above 27	Female	Nil	Other	Prefer not to say	3. I am willing to change my lifestyle to be more si.	2. I find it easy to adopt sustainable practices in i.	3. Society expects individuals
16	Above 27	Female	Intern/Freelancing	Business	Prefer not to say	1. I believe adopting sustainable practices is impo.	3. I feel confident in my ability to contribute to en	1. Most people who are important
17	Above 27	Male	Job/College	Business	Below ₹5,00,000	3. I am willing to change my lifestyle to be more si.	2. I have access to the resources needed to live s.	3. Society expects individuals
18	Below 18	Female	Nil	Sciences	Below ₹5,00,000	3. I am willing to change my lifestyle to be more si.	2. I have access to the resources needed to live s.	1. Most people who are important
19	Above 27	Male	Intern/Freelancing	Business	Above ₹10,00,000	3. I am willing to change my lifestyle to be more si.	1. I find it easy to adopt sustainable practices in i.	3. Society expects individuals
20	23-27	Female	Other	Humanities	₹5,00,000-₹10,00,000	1. I believe adopting sustainable practices is impo.	2. I have access to the resources needed to live s.	2. My peers encourage me to i
21	18-22	Male	Nil	Other	Prefer not to say	1. I believe adopting sustainable practices is impo.	1. I find it easy to adopt sustainable practices in i.	3. Society expects individuals

Count: 25

SmartPLS Feed1

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q																	
1	Q1	v	Q2	v	Q3	v	Q4	v	Q5	v	Q6	v	Q7	v	Q8	v	Q9	v	Q10	v	Q11	v	Q12	v	Q13	v	Q14	v	Q15	v	Q16	v	Q17	v
2	1	2	2	1	1	1	1	3	1	1	5	4	4	3	2	4	5	5	5	4	3	1	5	3	4									
3	1	3	3	2	1	1	2	1	1	5	3	3	4	1	5	3	2	4	2	4	3	1	5	3	4									
4	1	2	3	1	2	1	2	1	3	2	4	3	4	1	5	3	2	4	2	4	3	1	5	3	4									
5	2	2	1	3	1	2	2	1	1	4	5	5	5	5	2	1	2	4	2	4	3	1	5	3	4									
6	2	3	1	1	3	3	1	2	1	3	5	4	2	5	3	2	5	3	2	5	3	2	2	2										
7	3	2	2	2	1	3	1	3	3	3	5	1	3	2	1	3	2	1	2	2	1	2	2	2										
8	1	3	1	1	1	2	2	2	1	4	4	5	2	1	4	1	4	1	4	1	4	1	4	1										
9	1	2	2	3	1	3	1	1	1	4	2	2	1	5	5	4	3	4	2	3	1	5	4	3										
10	3	2	1	1	2	1	2	1	3	2	3	2	2	5	5	1	2	5	5	1	2	5	5	5										
11	3	2	1	1	3	2	3	2	1	4	5	4	2	5	2	5	2	5	2	5	2	5	5	5										
12	2	1	3	3	2	2	2	1	1	4	5	4	5	4	3	2	4	3	1	2	1	2	2	2										
13	3	2	2	3	3	2	2	2	1	5	4	4	4	1	5	5	1	4	1	5	5	1	4	4										
14	3	1	1	1	2	2	3	1	1	3	5	5	2	5	3	1	5	3	1	5	3	1	5	5										
15	3	1	3	2	1	2	1	2	1	2	5	1	2	4	2	2	5	2	2	5	2	5	2											
16	1	3	1	3	2	2	2	3	3	1	3	3	2	3	3	5	1	3	5	1	3	5	1	3										
17	3	2	3	1	1	2	3	2	1	2	4	5	4	5	4	5	4	5	4	5	4	5	1	1										
18	3	1	1	2	2	3	2	2	3	4	4	5	4	5	1	3	1	3	1	3	1	3	1	1										
19	3	3	3	2	3	3	1	1	1	4	2	4	3	5	5	1	5	1	5	1	5	1	5	4										
20	1	2	2	2	3	1	1	3	3	5	5	5	3	5	3	5	1	3	1	3	1	3	1	1										
21	1	1	3	1	1	2	3	3	2	1	3	4	3	2	5	4	3	2	5	4	2	5	4	2										

Sum: 20,034.00

