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Understanding Eco-Anxiety and its Role in Shaping Sustainable Behaviour in Mumbai's Suburban Regions.

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Abstract
Eco-anxiety is a psychological response to environmental degradation. It has become a relevant topic of discussion with respect to climate change and its effects on our well-being. This study explores the role of eco-anxiety in shaping sustainable behaviours in the suburban regions of Mumbai. Along with focusing on its relationship with climate change, solastalgia, and income disparities, this research aims to understand how generational differences (Gen Z vs. Millennials) and income groups have an influence on levels of eco-anxiety and sustainable behaviour. The research methodology entails administering a Google Form-based survey to 178 participants using established scales like the Hoggs Eco Anxiety Scale (HEAS) and the short version of the Sustainability Consciousness Questionnaire (SCQ-S). A 20-item questionnaire was prepared by the researchers and validated through Exploratory Factor Analysis (EFA). Various statistical methods such as the Mann-Whitney U Test, Kolmogorov-Smirnov Test, and Exploratory Factor Analysis (EFA) were applied to analyse the data.

The study focuses on understanding eco-anxiety and its links to sustainable behaviour, income disparities, and generational differences. It offers valuable insights for designing interventions aimed at reducing eco-anxiety while promoting sustainable behaviours, particularly in diverse socio-economic contexts. Limitations of the study include the sample's geographic focus on Mumbai's western suburbs and the reliance on self-reported data, which may introduce biases.
The findings of this study posit no significant difference in eco-anxiety levels between Gen Z and Millennials. This may suggest that both generations share similar environmental concerns. However, there is a significant difference observed in the sustainable behaviours between the two groups as these behaviours were moderated by age. The levels of eco-anxiety also differ significantly among the various income-groups, emphasizing the socio-economic factor associated with environmental concerns. The moderate positive relationship between eco-anxiety and sustainable behaviour reveals that higher levels of eco-anxiety might be more likely to provoke greater environmental concerns. This study can thus be explored further for understanding patterns of consumer behaviour in buying sustainable products, invoking actions of sustainable behaviour among different set of respondents.

Keywords: Climate change, Eco-anxiety, Sustainable behaviour, Environmental Psychology, Well-being, Environment

JEL Classification Code: I13, D91, Q54

1. Introduction

Human activities over the years have driven significant ecological changes around the world leading to substantial alterations of ecosystems and biodiversity. These ecological changes have eventually led to serious repercussions like climate change, loss of biodiversity, destruction of habitats, climate change etc. (McMichael, Friel , Nyong, & Corvalan , 2008). The ecological imbalances which the

world sees today calls for corrective actions from the human civilization to ensure quality life for the subsequent generations.

This has also traversed in the business landscape and there is no escape from embracing sustainability in shaping organizational operations and strategy. Businesses today need to navigate through the ever-changing environmental demands, making it mandatory to comply with certain principles pertaining to sustainability. The convergence of sustainability and business management not only enhances innovation and competitive advantage but also develops organizational resilience. Consumer awareness and regulatory scrutiny about environmental impact draws attention for a new paradigm of thinking in context of environmental conduct.

The UN in its most recent report has pointed out the contribution of human activities to global warming and by alarming individuals across the globe to take actions to avoid appalling consequences of the future (IPCC 2021, In Press). This has forced the media to disseminate and cover news focussing on climate change and global warming. Apart from environmental destructions, the media has also brought attention to the concept of 'eco anxiety' among people due to climate change (Ágoston, 2022). What is eco-anxiety and why is it getting the limelight is discussed by the researcher in this paper.

1.1 Eco-anxiety and Solastagia

A study (Clayton, 2017) has defined eco-anxiety as "a chronic fear of environmental doom". Eco-anxiety in its generalized context was also defined (Albrecht, Psychoterratic conditions in a scientific and technological world, 2012) as the "ecological foundations of existence are in the process of collapse." Solastalgia is another very related term that has gained popularity. A novel idea called solastalgia was created to provide more context and understanding for distress brought on by environmental factors. Solastalgia is the "distress caused by environmental change that affects people while they are directly connected to their home environment" (Glenn Albrecht, Sartore , & Pollard, 2007), as opposed to nostalgia, which is the melancholy or homesickness that people experience when they are separated from a loved home (Legg, Memory and nostalgia, 2004). Solastalgia has also been defined as the "distress caused by the painful 'lived experience' of environment destruction" (Albrecht, 2006).

Eco-anxiety is described as the overwhelming and sometimes debilitating concern for the deterioration of the environment (Cossman, 2013). Pikhala, (2020) in his study describes eco-anxiety through different disciplines like pathological, social, psychosocial etc. Additionally, he also speaks of practical eco-anxiety that has the positive power to possibly alter the behaviour of individuals due to their revaluation of the situation in search of improved evidence. Environmental degradation, is a chief contributor to eco-anxiety and refers to the corrosion of the natural environment done by human activities or certain natural processes. The said degradation outcomes in the depletion of indispensable resources like soil, water, air, the extinction of wildlife and destruction of ecosystems. Main issues connected with environmental degradation include deforestation, pollution, biodiversity loss & climate change (Kumar, 2020).

Eco-anxiety essentially means consistent distress over climate distortion & climate-related events and their possible consequences, therefore, factors such as the loss of biodiversity, growing frequency of extreme weather events, and increasing media coverage meaningfully contribute to its occurrence. To address eco-anxiety, it requires fostering of resilience, encouraging of actionable responses, and the building of strong connections within community (Baudon & Jachens, 2021). A researcher (Hickman C. , 2020) argues that eco-anxiety is not merely an emotional reaction to the facts and experiences of environmental crises and threats; it encompasses the relationship between these emotional responses and the cognitive awareness that humanity has both contributed to the threat and is failing to take sufficient action to mitigate it.

1.2 Climate Change and Eco-anxiety

As climate change strengthens, this research seeks to recognize how different socio-economic factors, mainly levels of income of people, affect the prevalence and eventual intensity of eco-anxiety amongst them. Exploring this relationship may help understand how social disparities affect ecological distress, which could be potentially leading to an encouragement for pro-environmental behaviours. Climate change itself refers to long-term modifications in the earth's climate structure, including wind patterns, shifts in temperature and precipitation. These changes are led by natural processes and, more specifically, by human actions such as industrial practices & greenhouse gas emissions from burning fossil fuels. (Legg & Stephen, 2021).

Evidence from associated severe weather events suggests elevated incidence of post-traumatic stress disorder (PTSD), depression, anxiety, cognitive problems, and learning challenges, notwithstanding the paucity and ongoing nature of research on the psychological effects of climate change (WHO, 2021). 73% of people aged 10 to 19 who experienced the 2010 floods in Pakistan had significant levels of PTSD, with displaced girls having the greatest levels (Sanson, 2019). According to (WHO, 2021), extreme weather events can also cause suicidality, identity loss, anxiety, grief, anger, and distressed feelings (Sanson, 2019). According to (Jiaojiao, 2019), after the temperature reaches a threshold specific to each place, there is an approximate 1% rise in suicides for every 1°C increase in temperature. Additionally, there is proof that both air pollution and severe weather conditions like hurricanes and wildfires may lead to increased suicide rates (Braithwaite, 2019; Bryant, 2014; Kessler, 2008)

1.3 Income and Eco-anxiety

Pro-environmental behaviour can be defined as actions which are aimed at minimizing the negative environmental impact and/or promoting sustainability, and may include waste reduction, use of eco-friendly products, energy conservation, recycling, and support for favourable environmental policies (Steg, 2009). These behaviours are typically developed through individuals who are also aware and concerned with environmental issues, which may be influenced by their economic stability and resources, in turn. A research study (Gomes, 2023) validated that in a Portuguese Gen Z sample environmental concerns have a positive effect on willingness to pay more for green items. Additionally, it was concluded that green marketing may have a substantial influence on Gen Z customers.

Internationally, economic development also outlines environmental concern. Developing nations often prioritize their economic growth over their environmental sustainability. On the other hand, developed nations are more likely to invest in conservation efforts and green technologies (Dunlap, 2016).

2. Review of literature

2.1.1 Eco-anxiety

What is commonly referred to as eco-anxiety involves the experience of challenging feelings related to environmental issues, such as climate change and the various hazards they pose. Climate anxiety, therefore, is a subset of eco-anxiety. From the modest symptoms of periodic insomnia and restlessness to more severe ones like panic attacks and compulsive behavior that interferes with day-to-day functioning, eco-anxiety can take many forms (Pihkala, 2019).

Because some young people's concerns may not be as deep as those of their peers, social relationships can also be hampered by isolation (E Sciberras, 2022). Anxiety and depression are both mental health conditions that may arise from eco-anxiety (Sanson, 2019). Cognitive functioning, interpersonal connections, and general quality of life may all be negatively impacted by the uncertainty and distress brought on by the looming effects of climate change (WHO, 2021). In addition to causing hopelessness, despair, and pessimism about the future, the weight of feeling unable to make significant

change in the face of environmental issues may also increase suicidal behavior (Hickman E. M., 2021) (Thompson, 2021).

(Pikhala, 2020) delivers a multidisciplinary investigation of eco-anxiety, classifying it into several dimensions, including social, pathological, and psychosocial aspects. He presents the concept of practical eco-anxiety, where an individual's anguish over environmental issues stimulates them to adopt behaviours which are pro-environmental. This viewpoint highlights that eco-anxiety not only induces stress but it can also result in behavioral change, motivating individuals to modify their activities in response to environmental worries. Current advancements have concentrated on developing new measures to evaluate the effects of eco-anxiety across populations which are diverse. One such positive effort is the Hogg Eco-Anxiety Scale (HEAS), adapted for the youth in Portuguese and studied in relation to sociodemographic factors and pro-environmental behavior by (Sampaio, 2023). HEAS-PT was validated by Sampaio's study as a reliable tool for measurement of eco-anxiety among young adults, reinforcing the view that eco-anxiety can be evaluated systematically and is connected to certain demographic factors.

Building on that, a study (Quiroga, 2024) verified the validity of the HEAS in populations from Spain & Argentina, finding important trends of demography. It was noted that, younger women conveyed higher levels of eco-anxiety, especially regarding their personal impact on the environment. These findings suggest that demographic factors, such as gender & age, do play a part in forming the intensity & expression of eco-anxiety, directing to an underlying dimension that effects these differences. Further in the direction, another study (A´goston, 2022) established the Eco-Anxiety Questionnaire (EAQ-22), which recognized two primary factors: One- the habitual ecological worry and second- the negative effects of eco-anxiety. Both these factors were shown to positively correlate with behaviours that are pro-environmental, representing that while eco-anxiety can cause a concern, it may also stimulate practical actions. These findings emphasize the variability in responses, especially, psychological responses to climate crisis, varying from routine worries to extremely severe, an almost disabling stress reaction.

A study (Zeier, 2024) that worked on the emotive dimensions of eco-anxiety, which include eco-grief, eco-guilt, and eco-anxiety. His findings revealed moderate to strong correlations between these emotions and intentions to take climate-related actions. This connection emphasizes the role of eco-emotions in fostering climate policy support among the general population. Zeier's outcomes show that higher public eco-anxiety may possibly translate into more support for environmental policies. Together, these studies illustrate that this dynamic interplay between eco-anxiety and demographic factors also has significant implications for behavioural reactions of concern about environmental issues, which can serve as both, problematizing, and a driving force for improvement at the same time. Eco-anxiety may be influenced by many factors and may vary in intensity. Differences in exposure to environmental risks and vulnerability to climate change may create variability in eco-anxiety. Since they have fewer access tools to resilience and adaptation, the levels of anxiety levels among people living in underprivileged communities and those who dwell in locations that more significantly bear the impacts of environmental risks are more frequent (Sanson, 2019) (Kankawale, 2023)

2.2 Sustainable Behaviour

The concept of sustainability emerged from the Brundtland Report by the United Nations World Commission on Environment and Development (Brundtland, 1987). Sustainability was termed as meeting the needs of the present without compromising the ability of future generations to meet their own needs. It is about maintaining a balance between economic growth, environmental health, and social well-being to ensure long-term viability (Kazmi, 2020).

According to Stern (2000), sustainable behaviour encompasses pro-environmental, pro-social, and ethical considerations in enhancing sustainability. Pro-environmental behaviour is the behaviour of the individual or a group with the aim of helping the environment, or stopping detrimental activities

against it. For instance, recycling, saving energy, the use of sustainable products and waste reduction. Pro-environmental behaviour is primarily aimed at achieving environmental protection and sustainability with the adoption of practices that reduce undesirable impacts on the natural environment (S Bamberg, 2007).

In one study (Perono, 2022), the psychological factors were analysed in context of GenZ's sustainable buying behaviour. Factors like Perceived Knowledge About Sustainability Issues (PKSI), Attitude Towards Sustainable Purchasing Behaviour (ATS), Sustainable Purchase Behaviour (SPB), Spirituality (SP), Perceived Consumer Effectiveness (PCE), Drive for Environmental Responsibility (DER), and Perceived Marketplace Influence (PMI) were proved to be positively correlated with one another.

Furthermore, (Lavuri, 2021) conducted a study in the Indian context to analyse the difference between Millennials and Gen Z with respect to green sustainability. The results concluded that variables like Environmental Knowledge, environmental concern, environmental attitude and green purchasing intention had different effects on the green purchasing behaviour of the two generations. In another study (Gomes, 2023) confirmed that environmental concerns positively influence willingness to pay more for green products in a GenZ Portuguese sample. It was also established that Genz consumers may be strongly influenced by green marketing.

3. Objective of the study

i. To identify whether the constructs of 'Eco-anxiety' and 'Sustainability' are well represented by the items of the Likert scale devised for respondents in Mumbai Suburban areas

ii. To identify whether the variables 'Eco-anxiety' and 'Sustainable behaviour' are related to each other among respondents who are GenZ and Millennials.

iii. To identify whether the 'Eco-anxiety' levels differ based on age groups and income.

iv. To identify whether the 'Sustainable behaviour' differs based on age groups.

4. Limitations

The study was conducted for the respondents residing in the western suburbs of Mumbai. Since the population was infinite a sample of 178 respondents was selected which might not be a true representation of the population to identify certain aspects of the study like income, gender etc. The reliance on self-reported data introduces response biases due to the possibility that some participants may not be able or willing to respond in a manner that accurately represents the situation.

5. Research Methodology

A questionnaire containing 20 items was prepared after studying after reviewing adequate literature. The 20 item Likert scale was devised to check whether a brief questionnaire can demonstrate the eco-anxiety levels of the respondents. The questionnaire was prepared and circulated to 178 participants, to assess eco-anxiety levels and sustainable behaviour as well as to explore variations across different age groups. This questionnaire was formulated using the Hoggs Eco Anxiety Scale (HEAS) which was reliable and was validated for Portuguese young adults (Sampaio, 2023) and Spanish and Argentinian populations (Quiroga, 2024). The questionnaire was also formulated using the short version of the sustainability consciousness questionnaire (SCQ-S) which presented excellent psychometric quality (Niklas Gericke, 2017).

The questionnaire aimed to collect comprehensive data on participants' experiences, behaviours, and perceptions related to environmental concerns. In the present study, data collected from participants were analysed to explore the influence of levels of eco-anxiety on sustainable behaviour. By examining eco-anxiety in relation to age, this study aims to bridge existing research on the psychological dimensions of eco-anxiety with socioeconomic considerations. It eventually aims to identify the existence of relationship between eco-anxiety and sustainable behaviour.

The researcher has conducted Kaiser-Meyer-Olkin Measure of Sampling and Bartlett's Test to assess whether the data is suitable to conduct Exploratory Factor Analysis (EFA). EFA was performed to identify to correlation of variables with the constructs. Kolmogorov Smirnov test was performed to check the normality of data. Mann Whitney U Test was performed to identify the significant difference in eco-anxiety as well as sustainable behaviour between Gen Z and Millennials. Kendall's Tau B and Spearman's Rank Correlation was conducted to identify whether corelation exists between the two variables 'Eco-anxiety' and 'Sustainable Behaviour.'

6. Hypothesis

Hypothesis 1:
H_0: There is no significant difference in 'Eco-anxiety' level between Gen Z and Millennials.
H_1: There is a significant difference in 'Eco-anxiety' level between Gen Z and Millennials.

Hypothesis 2:
H_0: There is no significant difference in 'Sustainable Behaviour' between Gen Z and Millennials.
H_1: There is a significant difference in 'Sustainable Behaviour' between Gen Z and Millennials.

Hypothesis 3:
H_0: There is no significant difference in 'Eco-anxiety' levels across different income groups.
H_1: There is a significant difference in 'Eco-anxiety' levels across different income groups.

Hypothesis 4:
H_0: There is no significant correlation between 'Eco-Anxiety' and 'Sustainable Behaviour'
H_1: There is a significant correlation between 'Eco-Anxiety' and 'Sustainable Behaviour'

7. Data Analysis:

The researcher has conducted Exploratory Factor Analysis (EFA) to validate whether the survey items effectively group into the intended constructs of Eco-Anxiety (EA) and Sustainable Behaviour (SB). The researcher has conducted Kaiser-Meyer-Olkin Measure and Bartlett's Test to assess whether the data is suitable to conduct Exploratory Factor Analysis. The Kaiser-Meyer-Olkin Measure (KMO) of Sampling Adequacy shows whether the data is adequate for conducting factor analysis.

Table No. 1
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.871
Bartlett's Test of Sphericity	Approx. Chi-Square	1914.952
	df	300
	Sig.	.000

Source: Prepared by the researcher using SPSS 21

The KMO value in Table No. 1 is 0.871 which shows that the data collected is suitable for conducting factor analysis. The Bartlett's Test of Sphericity was significant ($p = 0.000$), further validating the correlations among variables for Exploratory Factor Analysis (EFA).
Using Varimax rotation, the items were grouped into distinct factors with strong loadings (typically >0.5), confirming that the constructs of 'Eco-Anxiety' and 'Sustainable Behaviour' are valid. The factors with eigenvalues greater than 1 were retained, leading to 6 factors for the construct of Eco-anxiety. The reduction of factors to 6 reflects distinct dimensions within the data, highlighting the multidimensional nature of the constructs. Similarly for the construct of Sustainable Behaviour, 4 factors were considered.

Table No. 2 **KMO and Bartlett's Test**		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.869
Bartlett's Test of Sphericity	Approx. Chi-Square	506.181
	df	21
	Sig.	.000

Source: Prepared by the researcher using SPSS 21

The KMO value in Table No. 2 for the construct of Eco-anxiety is 0.869 which shows a very good sampling adequacy, indicating strong correlations among variables. The Bartlett's Test of Sphericity was Significant (p = 0.000), confirming the suitability of Exploratory Factor Analysis. From the six factors of Eco-anxiety in Table no. 3, one dominant factor explains 55.95% of the variance, with no need for additional subfactors. This high variance indicates that items under Eco-Anxiety are highly cohesive and represent a single dominant dimension. The Cronbach's Alpha value is 0.868 which shows good reliability as well as the fact that 'EA1–EA7' consistently measure Eco-Anxiety.

Table No. 3 **Total Variance Explained**			
Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	3.917	55.951	55.951
2	.745	10.648	66.598
3	.623	8.894	75.493
4	.596	8.516	84.009
5	.466	6.659	90.667
6	.355	5.076	95.743
7	.298	4.257	100.000
Extraction Method: Principal Component Analysis.			

Source: Prepared by the researcher using SPSS 21

Table No.4 **KMO and Bartlett's Test**		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.755
Bartlett's Test of Sphericity	Approx. Chi-Square	205.504
	df	6
	Sig.	.000

Source: Prepared by the researcher using SPSS 21

The KMO value for the construct of Sustainable Behaviour in Table No. 4 is 0.755 which shows a very good sampling adequacy, indicating strong correlations among variables. The Bartlett's Test of Sphericity was Significant (p = 0.000), confirming the suitability of Exploratory Factor Analysis. From the three factors of Sustainable Behaviour, one dominant factor explains 60.93% of the variance.

This high variance indicates that items under Sustainable Behaviour are highly cohesive and suggests strong uni-dimensionality. The Cronbach's Alpha is 0.785 which shows good reliability indicating the items measure Sustainable Behaviour consistently.

Table No. 5
Total Variance Explained

Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	2.437	60.927	60.927
2	.723	18.074	79.001
3	.454	11.358	90.359
4	.386	9.641	100.000

Extraction Method: Principal Component Analysis.

Source: Prepared by the researcher using SPSS 21

A reliable scale was thus considered for hypothesis testing. The results validate the survey design and confirm that the constructs are well represented by the items. The presence of subdimensions in 'Eco-Anxiety' highlights its complexity, providing avenues for further exploration. The findings can be used to design interventions targeting specific aspects of Eco-Anxiety and Sustainable Behavior, particularly focusing on subdimensions like triggers and responses to anxiety.

7.1 Hypothesis Testing

Hypothesis 1:

H_0: There is no significant difference in 'Eco-anxiety' levels between Gen Z and Millennials.

H_1: There is a significant difference in 'Eco-anxiety' levels between Gen Z and Millennials.

Table No. 6
Ranks

	Age	N	Mean Rank	Sum of Ranks
Eco Anxiety	Gen Z	154	87.38	13456.50
	Millennial	24	103.10	2474.50
	Total	178		

Source: Prepared by the researcher using SPSS 21

Table No. 7
Test Statistics[a]

	Eco Anxiety
Mann-Whitney U	**1521.500**
Wilcoxon W	**13456.500**

Z	**-1.391**
Asymp. Sig. (2-tailed)	**.164**
Grouping Variable: Age	

Source: Prepared by the researcher using SPSS 21

Since the data is not normally distributed, a Mann Whitney U Test was applied.
The p value in the above table no. 5 is 0.164 which is greater than the common significance level of 0.05. Therefore, the researcher fails to reject null hypothesis. This indicates that based on this analysis, there is a no statistically significant difference in eco-anxiety levels between Gen Z and Millennials.

Hypothesis 2:
H_0: There is no significant difference in sustainable behaviour between Gen Z and Millennials.
H_1: There is a significant difference in sustainable behaviour between Gen Z and Millennials.

Table No. 8
Ranks

	Age	N	Mean Rank	Sum of Ranks
Sustainable Behaviour	**Gen Z**	**154**	**86.15**	**13266.50**
	Millennial	**24**	**111.02**	**2664.50**
	Total	**178**		

Source: Prepared by the researcher using SPSS 21

Table No. 9
Test Statistics[a]

	Sustainable Behaviour
Mann-Whitney U	**1331.500**
Wilcoxon W	**13266.500**
Z	**-2.200**
Asymp. Sig. (2-tailed)	**.028**

a. Grouping Variable: Age
Source: Prepared by the researcher using SPSS 21

Since the data is not normally distributed, Mann Whitney U Test was applied. The 'p' value is 0.028 which is less than the common significance level of 0.05, meaning the result is statistically significant. The null hypothesis stands rejected and H_1 can be accepted. This means that there is a statistically significant difference in sustainable behaviour between Gen Z and Millennials.
To determine which group (Gen Z or Millennials) exhibits a higher likelihood of sustainable behaviour, the mean rank values from the Mann-Whitney U Test results for sustainable behaviour have been referred. The mean rank for Gen Z is 86.15 and that for Millennials is 111.02. Since Millennials have a higher mean rank compared to Gen Z, they are more likely to exhibit sustainable behaviour according to the data analyzed. This interpretation aligns with the statistically significant result ($p = 0.028$), indicating a meaningful difference between the two groups.

Hypothesis 3:
H_0: There is no significant difference in eco-anxiety levels across different income groups.
H_1: There is a significant difference in eco-anxiety levels across different income groups.

Table No: 10
Ranks

	Family Income	N	Mean Rank
Mean_EA	15-20 lakhs+	103	81.10
	10-15 lakh	30	93.95
	5-10 lakh	28	102.20
	0-5 lakh	17	111.65
	Total	178	

Table No: 11
Test Statistics[a,b]

	Mean_EA
Chi-Square	7.818
df	3
Asymp. Sig.	.050
a. Kruskal Wallis Test	
b. Grouping Variable: Family Income	

The data for 'Eco-anxiety' is ordinal (e.g., Likert scale) and non-normally distributed. Thus, the researcher has used the Kruskal-Wallis H test. This test compares the median 'Eco-anxiety' ranks across multiple income groups
Since p = 0.050, result is considered borderline significant, the research fails to accept the null hypothesis. Thus, inferring that there is a difference in 'Eco-anxiety' levels among the different family income groups.

Hypothesis 4
H_0: There is no significant correlation between 'Eco-Anxiety' and 'Sustainable Behaviour'
H_1: There is a significant correlation between 'Eco-Anxiety' and 'Sustainable Behaviour'

The data did not match the assumptions of Normality and thus a non-parametric test Kendall's Tau B and Spearman's Rank Correlation was conducted to identify whether corelation exists between the above two variables.

The results are as follows:

Table No: 12
Details of Correlations

			Eco Anxiety	Sustainable Behaviour
Kendall's tau_b	Eco Anxiety	Correlation Coefficient	1.000	.300**
		Sig. (2-tailed)	.	.000

		N	178	178
	Sustainable Behaviour	Correlation Coefficient	.300**	1.000
		Sig. (2-tailed)	.000	.
		N	178	178
Spearman's rho	Eco Anxiety	Correlation Coefficient	1.000	.425**
		Sig. (2-tailed)	.	.000
		N	178	178
	Sustainable Behaviour	Correlation Coefficient	.425**	1.000
		Sig. (2-tailed)	.000	.
		N	178	178
**. Correlation is significant at the 0.01 level (2-tailed).				
Source: Prepared by the researcher using SPSS 21				

From the above Table no 10, it is observed that when Kendall Tau B's test of correlation was undertaken, the 'Correlation value' was .300 with a 'P value' of .000 which is lower than the critical P value 0.05. Hence, we reject the null hypothesis and accept the alternate hypothesis concluding that 'There is a significant correlation between 'Eco-Anxiety' and 'Sustainable Behaviour.' Similarly, Table no. 10 also demonstrates the results of Spearman's Rank Correlation. The 'Correlation value' is .425 with a 'P value' of .000 which is lower than the critical P value 0.05, hence null hypothesis is rejected which states that there is a significant correlation between 'Eco-Anxiety' and 'Sustainable Behaviour'.

The researcher has also evaluated the direction and strength of correlation. The correlation coefficient of Kendalls Tau B is .300 and Spearman's rho is .425. which is a positive value. This shows a positive correlation and draws an inference that individuals that display larger extent of 'Eco-Anxiety' will also display larger extent of 'Sustainable Behaviour'. The strength of correlation can be referred with the help of the following table.

Table No: 13

Correlation Coefficient range	Strength of correlation
0.10 – 0.29	Small association
0.30 – 0.49	Medium association
0.50 and above	Strong association

Source: Prepared by the researcher

The correlation coefficient of Kendalls Tau B is .300 and Spearman's rho is .425. Since both values fall in the range of 0.30 and 0.49, the strength of correlation between Eco Anxiety and Sustainable Behaviour is medium or moderate.

A study conducted by Clayton & Karazsia (2020), Mallett (2012), Ferguson & Branscombe, (2 010) has discussed the association between eco-anxiety with pro-environmental behaviour. The association though is quite weak but it helps us draw a cautious conclusion that emotions which relate to climate change can lead to useful actions and have more environmental values. (Agoston, Urban, Nagy, & Csaba, 2022). Thus, such studies indirectly reinforce the role of eco- anxiety on choosing a sustainable behaviour.

8. Findings

The following are the findings of the study:

i. The results of Exploratory Factor Analysis validate the survey design and confirm that the constructs Eco-anxiety and Sustainable Behaviour are well represented by the variables.
ii. There is no statistically significant difference in 'Eco-anxiety' levels between Gen Z and Millennials. Both have similar levels of 'Eco-anxiety' which is independent of age.
iii. There is a statistically significant difference in 'Sustainable behaviour' between Gen Z and Millennials, stating that the behaviour is moderated by age.
iv. There is a difference in 'Eco-anxiety' levels among the different family income groups.
v. There is a moderate correlation between 'Eco-Anxiety' and 'Sustainable Behaviour'

9. Conclusion

In the contemporary world today, growing psychological response to our environmental crisis (eco-anxiety) underscores the urgency of incorporating a sustainable behaviour. The researcher through this paper identifies the relationship between eco-anxiety and sustainable choices respondents make, the proactive environmental actions they demonstrate due to their environmental concerns. This research also contributes to understanding how demographic factors shape environmental fears and behaviours. It also leads to future scope of studying consumer patterns for sustainable buying, foster resilience, offer tangible solutions through which the society can make conscious decisions. Future studies could also explore interventions to harness 'eco-anxiety' for fostering sustainability while addressing its psychological impacts.

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