Sustainable Entrepreneurship: The Role of ESG and Strategic CSR in Shaping Generational Perspectives

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Abstract

The financial and entrepreneurial world is seeing changes amid increasing worldwide concerns about sustainability, environmental degradation, and digital transformation. In response, frameworks such as the United Nations' Sustainable Development Goals (SDGs), Environmental, Social, and Governance (ESG) principles, and Strategic Corporate Social Responsibility (SCSR) have become obviously essential tools in responsible business. However, there remains an obvious gap in knowledge on how generational cohorts view and interact with sustainable entrepreneurship. This gap is addressed by this study that looks at generational attitudes with particular emphasis on Millennials and Generation X toward the incorporation of ESG and SCSR in entrepreneurial strategies. Employing a quantitative cross-sectional design, data were collected via a structured survey distributed to 282 respondents, evenly divided between the two generations. In order to further examine the role of residential context and educational background in perceptions of sustainability, Mann-Whitney U and Kruskal-Wallis H tests were employed. While Millennials appear to be strongly in tune with sustainability concepts and are more willing to integrate ESG and SCSR with the SDGs, urban residence played a significant role in shaping these attitudes, with education hardly being relevant. On the other hand, Generation X-type satisfaction was less, and with education coming first, whereas residential context was less. The study offers practical insights for businesses, educators, and policymakers to tailor their sustainability programs in line with generational preferences. It calls for targeted campaigns through the engagement and collaboration of all generations to meet sustainability goals in the long run.

Keywords: Sustainable entrepreneurship, Strategic CSR, ESG factors, Sustainable Development Goals, Generation X, Millennials

1. Introduction

"Sustainable entrepreneurship is the compass for navigating a resilient future, guided by the principles of ESG and strategic CSR, ensuring prosperity for both business and the planet"- Authors

For the past decade, entrepreneurship has evolved: once blamed as an agent of environmental degradation and social injustice, it is now seen as a strategic enabler for sustainable development [1]. This shift in perception finds expression in the concept of sustainable entrepreneurship (SE), which trades-off environmental, social, and economic goals for long-term value creation and intergenerational equity [2, 3]. The SDGs enact a stronger influence towards SE, espousing the growing adoption of ESG and SCSR [4, 5]. As organisations are increasingly pressured to assume a leadership role on sustainability matters, the processes of innovation and CSR are henceforth presented as supportive instruments for so-called "competitive advantage" and "inclusive growth" [6].

With the increasing equity of ESG benchmarks reshaping the business landscape, marketers are prompted to combine their activities with sustainable, quantifiable outcomes [4]. In the meantime, social entrepreneurship is developing into avenues for addressing intricate societal and environmental problems via collaborative, intersectoral strategies that unite innovation, flexibility, and social impacts [7]. Nevertheless, the credibility of corporate sustainability has been greatly undermined by greenwashing, which concerns the erosion of trust and

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transparency in the communication of ESG [8]. To address such concerns, genuine sustainability undertakings, with communication consistent with actual operations, become imperative.

Apart from strategic and operational imperatives affecting sustainable organizations, sustainable practices perceptions and their acceptance depend heavily on generational predispositions. While having a huge interest in environmental issues and ESG-related entrepreneurship are characteristics mostly pertaining to Millennials, Generation X maintains a bit of a conservative approach depending fundamentally on educational attainments [9]. This unravelling of generational differences implies that sustainable entrepreneurship strategies must be contextualized within generational frameworks that take into account social values, exposures, and socioeconomic and demographic variables.

This paper advances the research by looking into the interplay between SE, ESG, and generational attitudes while calling for stakeholders to fashion evidence-based sustainability models that are inclusive of all points of view. As such, the study builds the knowledge of the sustainable transformation mechanism across generational groups concerning strategic CSR and ESG frameworks, thereby enabling better application of theory. The research questions that motivate the inquiry are as follows:

- How are startups aligning themselves with the UN 2030 Agenda for Sustainable Development Goals (SDGs) in the face of increasing demand for eco-friendly products?
- What are the factors that influence the development of sustainable entrepreneurship among the Millennial and Gen X generations, irrespective of location of residence and educational background?
- How do consumers of both generations differ in terms of trust and attitude toward sustainable entrepreneurship?

1.1 Objectives of the study

1. To explore the Integration of Sustainable Entrepreneurship from UN SDGs via Strategic CSR and ESG Perspectives.
2. To study the role of residential locations and educational backgrounds on the development of sustainable entrepreneurship among Millennials and Generation X.
3. To evaluate and compare the levels of agreement between Generation X and Millennials regarding their perspectives on sustainable entrepreneurship development.

1.2 Significance of the Study

This study makes a contribution to the emerging discourse on sustainable entrepreneurship through the integration of Environmental Social and Governance (ESG) frameworks and Strategic Corporate Social Responsibility (SCSR) in line with the United Nations Sustainable Development Goals [4, 10]. It has significance as a multi-dimensional study of how generational cohorts-Millennials and Generation X-view and participate in sustainability entrepreneurship [3, 7]. The study deepens the sociological perspective on the determinants of sustainable entrepreneurial behaviour by assessing the effects of residential location and educational background [9].

It also identifies comparisons in intergenerational agreement on sustainability values, thus addressing a distinct research gap in intergenerational studies. The findings lend themselves to informing the management practice by identifying contexts in which ESG and SCSR initiatives are best placed to enhance sustainability inclusion and targeting. Also, the study equips business leaders, educators, and policymakers with the evidence to design generation-specific interventions and nurture sustainable entrepreneurship ecosystems. Hence, the study is of strategic relevance to the management domain by aligning entrepreneurial action with long-term social and environmental value creation [2, 6]

2. Literature review

2.1 Sustainable Entrepreneurship

Sustainable entrepreneurship (SE) represents a paradigm shift from the traditional profit-goal view and was conceived to incorporate social and environmental responsibilities in the triple bottom line (TBL) perspective [11, 12]. SE negotiates the fine line between economic feasibility, social well-being, and environmental stewardship [3, 13] and although it draws from fields such as ecopreneurship and social entrepreneurship, it is increasingly perceived as a scholarly discipline in its own right [2, 14]. There is, in fact, a growing convergence in motivating factors for these different concepts yet SE still demands a more comprehensive treatment by scholars [15, 16,17].

Integrating ESG criteria with entrepreneurship ensures the adherence to UN Sustainable Development Goals [18, 19]. ESG compliance, when very high, ensures long-term viability and attracts capital for sustainable investment [4, 20]. Strategic CSR advances in strengthening such goals by reinvigorating the processes of shared value creation and stakeholder inclusiveness, with which the values of Millennials strongly resonate [21, 22]. Organisational competitiveness is also enhanced by CSR-innovation synergies [6]. Though concerns persist about operational costs, the incorporation of ESG and CSR strategically represents the sustainable future of entrepreneurship.

2.2 ESG and Strategic CSR

The body of scholarly literature treats ESG and CSR as deeply and multidimensionally affecting organisational strategy. CSR, traditionally, was linked to the enhanced reputation of the corporation and competitive performance [23], but recently developed ESG scores have come to be associated with market value particularly when that association is moderated by internal governance mechanisms such as CSR committees [24]. The empirical literature highlights that CSR and green organisational culture work together to encourage innovation where disclosure of ESG increases transparency and creativity [25, 26, 27].

Specifically, strategic CSR aims at strengthening the long-term value creation capacity of CSR initiatives. [28] find that CSR increases corporate image and customer trust. There are positive associations between CSR initiatives and financial performance [29, 30], while [31, 32] look into governance mechanisms mediating the ESG effect. Recent theoretical works [33, 34] introduce the ESG Combined Score as a novel measure framework for linking sustainability with strategic management.

The upgradation from traditional CSR towards structured ESG approaches represents a paradigm shift [35], with numerical indexes to measure sustainability initiatives [36]. On the other hand, the transition is being fostered by the younger generation such as Millennials and Generation Z who increasingly emphasize ethical business practices and sustainability [37]. However, other hurdles still exist, including greenwashing risks and an absence of standardised ESG metrics [36]. As insisted upon by [4, 8] genuine ESG implementation and strategic

CSR are the cornerstones for long-term credibility and public trust. Their works thus provide clear indication that ESG-CSR alignment remains a dynamic factor influencing business practices in response to changing generational and stakeholder expectations.

2.3 The attitude of Millennials and Generation X towards sustainable entrepreneurship

Millennials and Generation X show somewhat different attitudes towards sustainable entrepreneurship, shaped through generational value, socio-economic exposure, and expectations of corporate responsibility. It seems that Millennials tend to support companies that strongly adhere to Environmental, Social, and Governance (ESG) criteria and Corporate Social Responsibility (CSR), thereby associating sustainability with every facet of their consumption and investment decisions [38]. Contrary to the generation considered now, ethical concerns often take a backseat to profitability and operational sustainability in companies held by Generation X [39].

It has been studied that multiple factors contribute to the difference in attitudes. For the Millennial children, factors such as environmental risks, social pressure, and health consciousness incline them towards sustainable behaviour [40], while Generation X will prioritise factors like advertisement and reliability when making decisions [41]. CSR is a big deal for Millennials, who expect it to be fully integrated with the core business, whereas Generation X views it more as a sort of compliance function.

These differences will influence the very design of sustainability strategies. Millennials today satisfy transparency and corporate activism, which will lead to a stakeholder-driven governance [38]. While there is no doubt that truly Millennial-powered changes will shake things up, pragmatic Generation X support ensures the foundation is laid for an inclusive, long-term sustainable entrepreneurship [39], opening room for balanced approaches that do not lump generations together.

2.4 Study hypotheses

- There are no significant differences between Generation X's perception of sustainable entrepreneurship development according to residential locations.
- There are no significant differences relating to residential locations in Millennials' perception of sustainable entrepreneurship development.
- The perception of sustainable entrepreneurial development among Generation X is the same for different places of education.
- The perception of sustainable entrepreneurial development among Millennials is the same for different places of education.

2.5 Research Gap

There is still a research gap in the literature on sustainable entrepreneurship viewed through the lenses of ESG and Strategic CSR, frameworks essential for sustainability. Moreover, there are few empirical studies that compare how Generation X and the Millennials conceptualize and interact with sustainable business. In particular, separate considerations of residential settings and educational backgrounds as they impact such generational views have not been adequately discussed. By looking at these variables, this study seeks to fill these gaps and provide insight into those factors that incentivize and impede the embedding of CSR and ESG into sustainable entrepreneurial activities.

3. Research Methodology

This study adopted a quantitative, cross-sectional research design by administering structured questionnaires to evaluate generational perceptions of sustainable entrepreneurship. A total of 282 subjects, equally divided between the two generational groups of Millennials and Generation X, were selected through purposive sampling. This method guaranteed the inclusion of the targeted generational groups across residential and educational categories as directly aligned with the study objectives. Because these are non-probabilistic types of techniques, they limit generalisation and bias the analysis for non-random selection and non-representation of the larger population. Data were collected from India; thus, regional insights pertaining to this culture are relevant but may not extend widely to global generational trends. Cultural, economic, and institutional peculiarities to India can affect how sustainability persons perceive, making an international generalisation of the results a little precarious.

Reliability and validity of the instrument were ensured through expert validation, pre-testing, and pilot-testing of any respective questionnaire. Ethical guidelines addressed issues such as informed consent, confidentiality of information provided by respondents, and voluntary participation. Mean and Standard Deviation were calculated under descriptive analysis, while non-parametric testing was employed for analysis of generational differences in sustainable entrepreneurship-concerning residential location and educational background. Suitable for ordinal data and sample sizes that are small-to-moderate in size, these procedures ensured analytical robustness despite the sampling constraints. Despite the aforementioned methodological/problems, the study provides useful insights for a comparative generational approach in the emerging economy context.

4. Data Analysis

4.1 Sustainable Entrepreneurship Integration: Aligning Practices with UN SDGs via Strategic CSR and ESG Perspectives

Sustainability into entrepreneurial ventures involves harmonizing such ventures with the United Nations Sustainable Development Goals (SDGs) and following set approaches [42]. The private sector is, furthermore, seen as the great hope for world problems and solutions ú with corporate strategies such as corporate social responsibility and social entrepreneurship being key means for aligning business objectives with the SDGs to achieve both social impact and business value [43]. Sustainable marketing and strategy, among other disciplines, have to bridge the success of the corporation with the attainment of these SDGs [44]. Sustainable entrepreneurship is active especially in the early stages of entrepreneurial ventures, in the pre-seed and seed stages, when it becomes instrumental for the development of viable business models and tools for measuring social impact in view of realizing the SDGs [45]. With sustainability assessment disseminated over the life cycle phases of entrepreneurial ventures, the involvement of stakeholders is amplified and decision support is provided to the sustainable entrepreneurs, facilitating a systemic approach towards entrepreneurial sustainability with an impact [46].

The imperative to integrate sustainability into entrepreneurial practices by aligning them with the United Nations Sustainable Development Goals (SDGs) and by employing targeted strategies [26]. First of all, acknowledging the importance of the private sector in the resolution of global problems, the business strategies of corporate social responsibility and social entrepreneurship have been identified as an essential means to bring the goals of businesses in line with the SDGs, thus forming a symbiosis between social impacts and commercial value [47]. Within this context, sustainable marketing and strategy lay the foundation from a strategic perspective to coordinate corporate objectives with an active contribution toward the greater realization of the SDGs [48]. In the early stages of the launch at the pre-seed and seed stages, sustainable entrepreneurship acts in favor of the development of resilient business models and in the application of tools to measure social impact from firmer grounds. It thus proactively positions entrepreneurs to actually contribute to the operation of SDGs [49]. In addition, sustainability assessment throughout the life cycle phases of entrepreneurial ventures [50] intensifies stakeholder engagement and acts as a vital decision support system for sustainable entrepreneurs. This approach nurtures the depth of entrepreneurial impact and thus fortifies the presence of sustainable practice within the arena of business. Inculcating entrepreneurship and the UN SDGs through target strategies is of paramount importance for full entrepreneurial sustainability. At the firm level, CSR and social entrepreneurship become the major components for establishing the win-win nexus between social impact and business value. Sustainable marketing and strategy are hence brought home as pivotal elements in achieving corporate objectives and furthering the broader SDG agenda. During the very early stages of entrepreneurial ventures, sustainable entrepreneurship takes the lead to create resilient business models, emphasizing that entrepreneurs themselves become active agents in the achievement of SDGs.

4.2 Empirical Results

Demographic details of customers

Table 1 compares Generation X and Millennials in a sample of 282 respondents. Both generations represent 50%. Millennials represent 67.4% of urban population and Generation X at 51.8%.

Table 1 Demographic details of customers

		Frequency	Percentage
	Generations		
	Generation X	141	50
	Millennial	141	50
	Total	282	100
	Place of residence		
Generation X	Urban	73	51.8
	Rural	68	48.2
	Total	141	100.0
Millennial	Urban	95	67.4
	Rural	46	32.6
	Total	141	100.0
	Education levels		
Generation X	Below Under Graduate	85	60.3
	Under Graduate	37	26.2
	Post Graduate and above	19	13.5
	Total	141	100.0
Millennial	Below Under Graduate	54	38.3
	Under Graduate	52	36.9
	Post Graduate and above	35	24.8
	Total	141	100.0

Source: Field study, 2023

Generation X has a larger share of respondents with education below undergraduate (60.3%), whereas Millennials have higher shares in Undergraduate (36.9%) and postgraduate education (24.8%). These differentials may be reflective of choices regarding residence and nature of educational backgrounds and may play a role in their perspective and decisions.

Mean scores of levels of agreement of customers towards the sustainable entrepreneurship

Table 2 assesses customer agreement towards sustainable entrepreneurship on a scale of 1 to 5. The comparative analysis between Generation X and Millennials reveals significant differences. Millennials (M=4.20, SD=0.813) have a higher mean than Generation X (M=3.39, SD=0.998) in aligning sustainability with UN SDGs indicating a better acceptance. Correspondingly, Millennials (M=4.18, SD=0.740) have a higher mean than Generation X (M=3.45, SD=0.982) on the importance of Strategic CSR to grasp the integration of sustainable entrepreneurship. Millennials regard factors pertaining to ESG more positively for sustainable entrepreneurship than Generation X, stressing environmental, social, and governance elements (Millennials: M=4.28, SD=1.022; Generation X: M=3.43, SD=1.044). The Millennials also place a higher emphasis on economic impact (M=4.71, SD=0.555) than does Generation X (M=3.57, SD=1.071).

Table 2 Level of agreement towards sustainable entrepreneurship

	Generation X		Millennial	
	Mean	Std. Deviation	Mean	Std. Deviation
It is important to align sustainability practices within entrepreneurial sustainability with the United Nations Sustainable Development Goals (UN SDGs).	3.39	.998	4.20	.813
Consider Strategic CSR (Corporate Social Responsibility) as a critical variable in understanding sustainable entrepreneurship integration.	3.45	.982	4.18	.740
ESG (Environmental, Social, and Governance) factors shape sustainable entrepreneurial practices.	3.43	1.044	4.28	1.022
Economic impact emerges as a crucial variable, assessing how sustainable entrepreneurship contributes to economic development.	3.57	1.071	4.71	.555
Social impact is explored as a key dimension, highlighting the role of sustainable entrepreneurship in addressing societal challenges and promoting well-being.	3.77	1.100	4.00	1.021
Environmental impact is considered, emphasizing the responsibility of sustainable entrepreneurship in environmental conservation and protection.	3.41	1.036	4.16	.408
It is important to evaluate how businesses uphold ethical and sustainable practices in their operations.	3.17	.978	4.37	.814
Social entrepreneurship is discussed as a pivotal factor, showcasing entrepreneurial initiatives aimed at creating positive social change.	3.59	1.147	4.04	.940
Sustainable marketing is explored as a strategic discipline contributing to the promotion of sustainable products and practices.	3.38	1.125	4.19	.940
Sustainable strategy needs to be emphasized for aligning entrepreneurial objectives with sustainability goals.	3.30	1.035	3.96	.967
Stakeholder engagement needs to be considered, emphasizing the importance of involving diverse stakeholders in sustainable entrepreneurial practices.	2.89	1.070	4.16	1.009
Sustainable Entrepreneurship	3.3946	.44054	4.2044	.48510

Notes: Calculation of means based on a scale of: 5= strongly agree, 4=agree, 3=neither agree nor disagree, 2=disagree, 1=strongly disagree.

Source: Field survey, 2023

Both generations agree on social impact-intended almost-equal means: (Millennials: M=4.00, SD=1.021; Generation X: M=3.77, SD=1.100). In general, Millennials have higher means in many dimensions such as environmental impact and stakeholder engagement, which speak of a generational shift toward a more holistic approach to sustainable entrepreneurship. Such considerations would have implications for businesses engaging the various generational cohorts in the context of sustainable entrepreneurship.

Sustainable entrepreneurship and Place of residence

On an inferential scale, a Mann-Whitney U test was done to check for any differences between customers' degree of agreement with the concept of sustainable entrepreneurship from urban and rural points of view (see Table 3, Figs. 1 and 2).

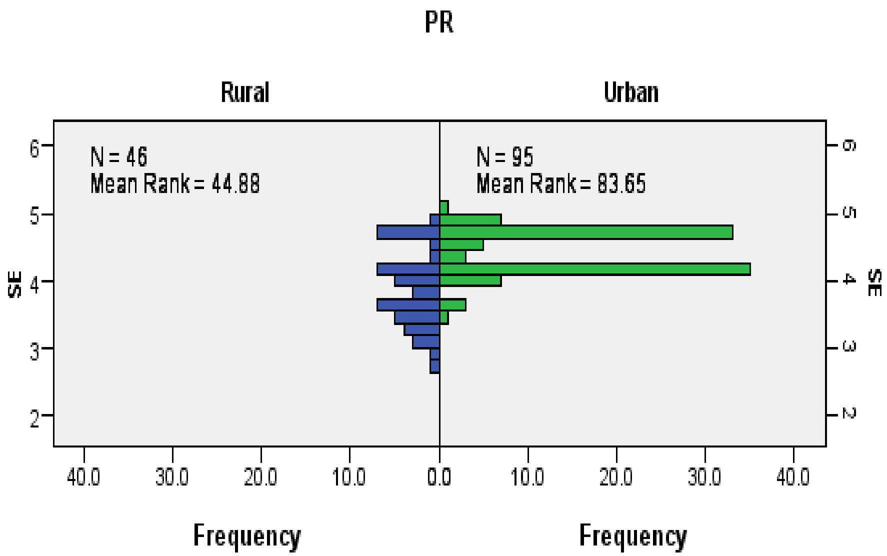

Figure 1 *Independent samples (Place of residence) of Millennials*

The Mann-Whitney U Test would be performed to verify a hypothesis concerning SE distribution across categories of PR between Generation X and Millennials. As stipulated in the null hypothesis (H0), the distribution of SE is the same across the different categories of PR for both generations. It clearly indicates that the distribution of SE varies significantly between Generation X and the Millennials for every category of PR. For Generation X, the Mann-Whitney U value measured was at 976.500.

For the Millennials, it was 983.500. Since both values led to an associated p-value of .000, the extremely low p-values forced a rejection of the null hypothesis for both generations. A rejection of the null hypothesis implies that there exist significant differences in the distribution of Sustainable Entrepreneurship across groups of Place of Residence for Generation X and compared to Millennials. Rejection of the null hypotheses indicates notable variations relating to the two generations on how they perceive and conduct sustainable entrepreneurial practices in relation to Place of Residence.

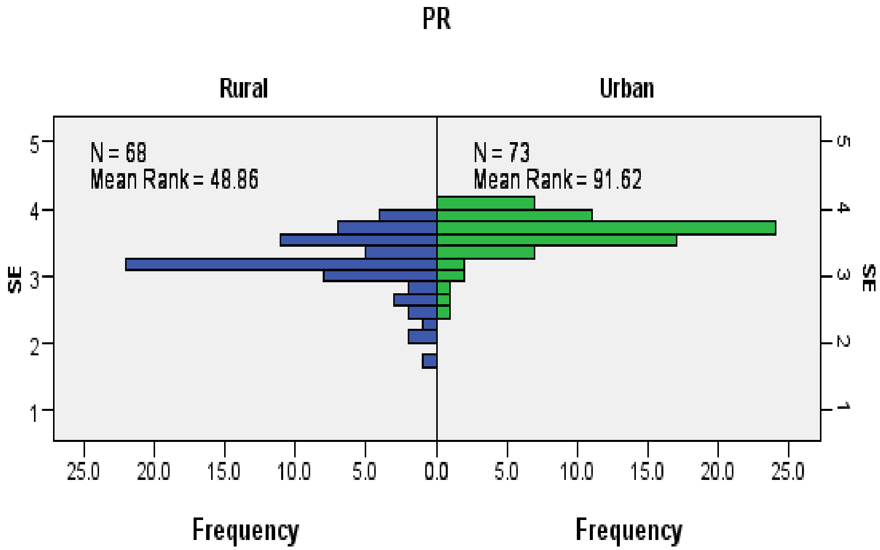

Figure 2 *Independent samples (Place of residence) of Generation X*

Table 3 Hypotheses test summary (place of residence).

Test	H_0	Generations	N	Mann-Whitney U	Sig	Decision
Independent-Samples Mann-Whitney U Test	The distribution of SE is the same across categories of PR.	Generation -X	141	976.500	.000	Reject the null hypothesis.
	The distribution of SE is the same across categories of PR.	Millennial	141	983.500	.000	Reject the null hypothesis.

Source: Field survey, 2023

This finding emphasizes the importance of generational differences in studying the factors affecting Sustainable Entrepreneurship, particularly in the area of the residential environment. Future studies can thus attempt to sharpen knowledge concerning which particular aspects of Place of Residence have a considerable effect on Sustainable Entrepreneurship of each generation, which would be helpful for business and policy circles seeking to nurture sustainable practices across different age groups and residential contexts.

Sustainable entrepreneurship and Levels of education

Moreover, the investigators analyzed any discrepancy between subjects' educational streams and their level of agreement towards sustainable entrepreneurship (see Table 4; Figures 3 and 4).

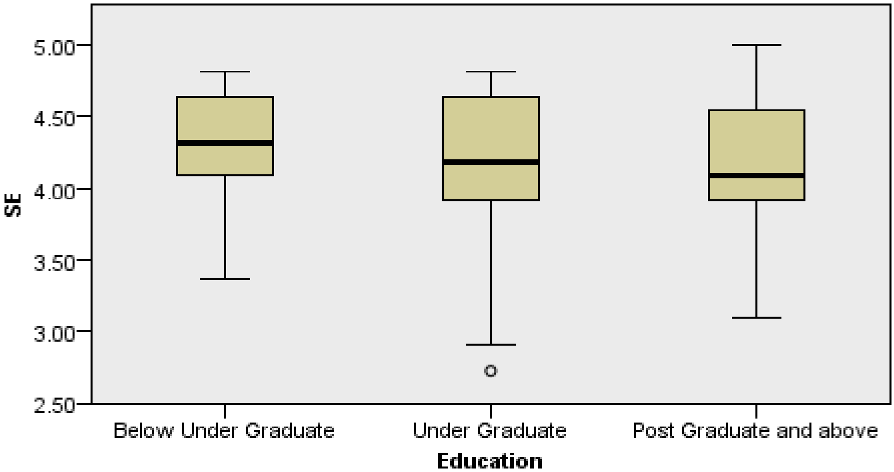

Figure 3 *Independent samples (Levels of education) of Millennials*

The Independent-Samples Kruskal-Wallis Test was employed to study the hypothesis about the distribution of Sustainable Entrepreneurship (SE) across categories of Education for Generation X and Millennials. The null hypothesis (H0) stated that the distribution of SE is the same for categories of Education for both generations. The results show great disparities in the distribution of SE across Education for Generation X categories; the Mann-Whitney U was 13.867, and the p-value was .001, thus rejecting the null hypothesis. In contrast, for the Millennials, the Mann-Whitney U was 4.789 with a p-value of .091, thus holding to the null hypothesis.

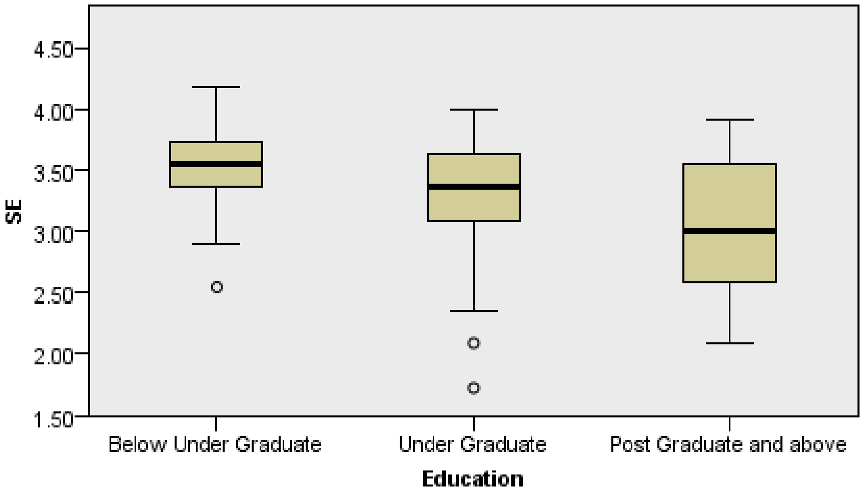

Figure 4 *Independent samples (Levels of education) of Generation X*

Rejecting the null hypothesis for Generation X thus suggests significant variation in the distribution of Sustainable Entrepreneurship concerning the various levels of education for this generation, whereas retaining the null for the Millennials instead shows the need for significant differences in the distribution of SE across educational categories within the cohort.

Table 4 Hypotheses test summary (levels of educations).

Test	H_0	Generations	N	Mann-Whitney U	Sig	Decision
Independent-Samples Kruskal-Wallis Test	The distribution of SE is the same across categories of Education.	Generation -X	141	13.867	.001	Reject the null hypothesis.
	The distribution of SE is the same across categories of Education.	Millennial	141	4.789	.091	Retain the null hypothesis.

Source: Field survey, 2023

Thus, these results bring out the relevance of educational backgrounds on Sustainable Entrepreneurship practices, especially for Generation X. Contrasting results between Generation X and Millennials show that Sustainable Entrepreneurship requires specific targeted strategies and interventions. Future research might sieve through and identify crisper details that differentiate the educational aspects of Sustainable Entrepreneurship development among two generations, giving educational bodies and organizational entities that promote sustainability initiatives among different age groups. The Generation X category is highly differentiated across educational categories. A pairwise comparison attempted to determine the specific educational categories causing differences. The pairwise comparison's results are portrayed in Table 5 and Figure 5 and give an indication of contrasts contributed to by various educational categories.

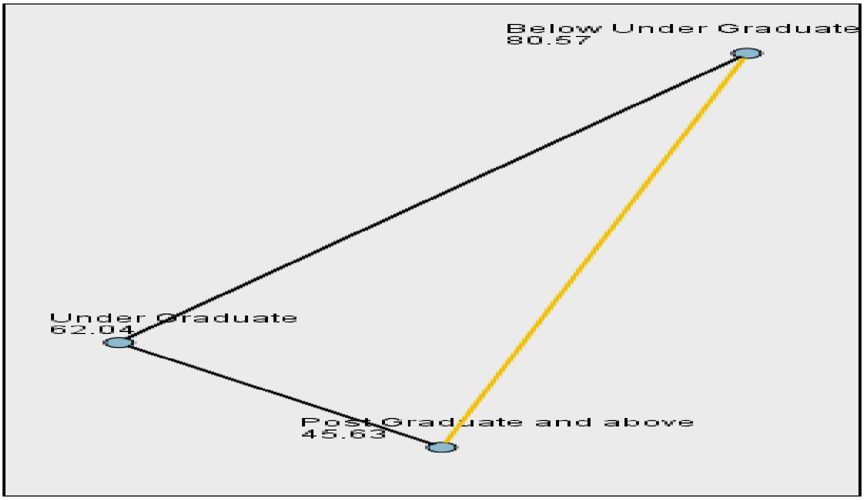

Figure 5 *Pairwise comparisons of independent samples (Levels of education) of generation X*

Educational institutions and policymakers may wish to consider targeting Sustainable Entrepreneurship programs that aim at raising awareness and practices with respect to the educational level of individuals, especially in the Generation X age group.

Some noticeable differences were found when pair-wise comparisons were made for sustainable entrepreneurship perceptions across different education levels under Generation X. The pairwise comparison across the two groups, "Post Graduation and Above" and "Below Under Graduation," gives a test statistic of 34.939 with a significance level of .001, showing that a major difference exists between sustainable entrepreneurship perceptions across these two education categories. Similar significant contrasts exist between "Under Graduation" and "Below Under Graduation," with the test statistic being 18.530 and a significance level of .021 for sustainable entrepreneurship perceptions between these education levels.

Table 5 *Pairwise comparison of different education levels in generation X*

Sample 1 – Sample 2	Test Statistics	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Post graduation and above – Under graduation	16.409	11.490	1.428	.153	.460
Post graduation and above – below Under graduation	34.939	10.331	3.382	.001	.002
Under graduation – below Under graduation	18.530	8.018	2.311	.021	.63

Note: Each raw tests the null hypothesis that the sample 1 and sample 2 distributors are the same

Significance level is .05

However, no significant differences were observed for sustainable entrepreneurship perceptions in the comparison of "Post Graduation and Above" with "Under Graduation" (test statistic = 16.409, significance level = .153), meaning that Generation X individuals with postgraduate level education may share some common perceptions on sustainable entrepreneurship with those having undergraduate education.

5. Discussion

With a focus on the functions of ESG and strategic CSR activities, this research provides some fungible insights into how different generations view sustainable entrepreneurship. There are significant variances in viewpoints between Millennials and Generation X regarding Strategic CSR and the integration of sustainability with the UN SDGs. According to the findings, Millennials stand more for environmental activities than Generation X. This is in line with [40], who stressed the point that Millennials are becoming increasingly environmentally concerned and wish to engage in sustainable practices because of social pressure and health concern. The pronounced differences in Millennials' and Generation X's perceptions of ESG factors underscore the former's broader conceptualization of sustainability, in keeping with [40] who noted that younger generations seem more accepting of sustainable programs in retail contexts. On the contrary, Generation X participants displayed predominantly neutral views on the role of strategic corporate social responsibility and the alignment of sustainability with the UN SDGs. This is somewhat at odds with what [51] found; their work suggests that even Generation X recognizes the value of sustainable practices but chooses financial incentives over social or environmental concerns.

This study reveals significant divergences between residential contexts affecting perceptions on sustainable entrepreneurship, especially among Millennials. While urban Millennials showed more levels of agreement with sustainable entrepreneurship principles when compared to their rural counterparts, this finding falls in agreement with [45] research that stressed how metropolitan settings frequently provide access to sustainable innovations and awareness efforts that promote positive feelings. Residential setting, however, mattered less for Generation X, consistent with the reasoning that this generational cohort has always valued more established economic factors than these more recent sustainability paradigms [52]. Whereas Millennials showed little influence, educational attainment highly impacted Generation X's ideas of sustainable business. Gen X participants with postgraduate degrees tended to be more at one with sustainable behaviors than those who were less educated, which lends support to [53] research that higher education enhances sustainability-oriented competencies. On the other hand, the continuous agreement among Millennials across educational levels lends credence to the idea that generational culture and social influences constitute a more important parameter for their sustainability attitudes than does educational distinction [50].

Since Millennials have rated ESG and strategic CSR very highly, the study supports their importance in sustainable entrepreneurship. This further augments the findings of [26] that established a strong association between green organizational practices and ESG disclosures. Perhaps the implication for a wider acceptance across generations could be finding a way to engage Generation X more, owing to a somewhat lukewarm endorsement by them of such activities [42]. Although this study serves a lot of insight, the cross-sectional design limits our understanding of how these generational perspectives may change over time. As sustainable entrepreneurship practices become developed, longitudinal research may probe into how these attitudes change. Moreover, reviewing regional and cultural differences may give a more advanced understanding of how views of sustainability are generationally different. In conclusion, this study emphasizes how important residential settings, educational backgrounds, and generational characteristics are in influencing sustainable entrepreneurship. In order to ensure comprehensive progress toward sustainable development goals, the findings highlight the necessity of customized strategies that capitalize on generational strengths and fill in gaps.

Theoretical and Managerial Implications

The contribution of the study is more inclined toward direct managerial issues and thus strategic decisions regarding generational engagement in sustainable entrepreneurship. It offers managerial perspectives on how actions can be accounted for across generations through the ESG framework, CSR planning, and stakeholder segmentation. Through exhaustive demographic behavioural mappings, managers can draw on findings to foster business models inclusive of sustainability. Each of these is especially pertinent for sustainable HRM, marketing, and organisational strategy.

The study, therefore, adds to theoretical perspectives on sustainable entrepreneurship by making generational distinctions, citing a lean toward sustainability by Millennials vis-à-vis Generation X [1, 4]. This literature points to contextual influences in this case, location as affecting sustainability attitudes; here lies a real gap in conventional approaches that tend to focus on individual or organizational determinants [3]. Besides, since educational context variably affected Generation X, it follows that education is also responsible for perceptions and behavior toward sustainability and should be taken into account when theorizing about entrepreneurial intention and behavior.

From a managerial lens, practical ideas emerge for enterprises and policymakers alike. Firms can design strategies by generational cohorts harnessing Millennials' energy via hands-on ESG events, especially in city areas, and engaging Generation X through education partnerships and sustainability literacy programs [2]. This understanding of spatial and educational contexts further enriches stakeholder segmentation and interventions. Thus, making the UN SDGs part of the very commercial strategy, instead of an optional decision, has become a strategic imperative [6, 10]. Successful stakeholder engagement in particular, with the Millennial generation can have effects on sustainability outcomes, thereby nurturing and interlinking entrepreneurial ecosystems that are inclusive, values-driven, and future-ready.

6. Conclusion

Bearing in mind the workings of ESG and strategic CSR practices, this study evaluates the growing importance of these generational view differences in sustainable entrepreneurship. The research pinpoints that there exist unequivocal generational distinctions with respect to views on sustainability, with the Millennial generation displaying a greater attachment to sustainability issues such as giving preference to ESG concerns and operationalizing business actions along the lines of the UN SDGs. These distinctions signal the need for customized solutions to engage more effectively with every generational bunch.

Urban Millennials were much more enthusiastic about sustainability undertakings, while residential environs had a strong impact on how Millennials viewed sustainable entrepreneurial efforts. The other way around-with Generation X being less influenced by residential variables. Educational backgrounds being relevant in shaping enduring attitudes for Generation X yet of little consequence for Millennials also emphasize the necessity for targeted educational interventions for elder cohorts. The study reiterates how CSR strategy and ESG should serve as a platform to stimulate sustainable entrepreneurship. Generation X groups seem to have been a more neutral, maybe indifferent, attitude, thus advocating for improved awareness creation, along with engagement strategies targeted at this particular segment, while the Millennials concede to support these types of activities. The findings point to high importance of generationally tailored approaches to sustainable entrepreneurship promotion,' implications for businesses, politicians, and educators. Therefore, sustainable entrepreneurship is considered good and hence an imperative to meet long-term social, economic, and environmental objectives. By putting age variation, residential, and educational backgrounds into consideration, businesses and stakeholders could tie together their plans with sustainability imperatives. For gaining a better understanding of sustainable entrepreneurship activities in varied contexts, future research should deal with longitudinal studies and address cultural and regional aspects.

Disclosure of Interests

The authors have no competing interests to declare that are relevant to the content of this article.

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