

A Study on Factors Influencing Sustainable Entrepreneurial Behavior Among Students

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Abstract: *The growing emphasis on sustainability has reshaped entrepreneurial intentions among students, encouraging the emergence of ventures that integrate economic viability, environmental responsibility, and social equity. This study investigates the determinants of sustainable entrepreneurial behavior among university students by examining the influence of individual traits, sustainability-oriented education, social norms, and external institutional pressures. Grounded in the Theory of Planned Behavior (TPB), the study develops a conceptual framework to explain how attitudes toward sustainability, perceived behavioral control, and subjective norms shape students' green entrepreneurial intentions. A systematic synthesis of existing empirical literature, with a particular focus on emerging economies such as India, reveals that environmental awareness and sustainability-focused education are the most significant predictors of sustainable entrepreneurial behavior. Furthermore, institutional support mechanisms, including university incubation centers and policy incentives, positively influence students' intentions to engage in sustainable ventures. However, barriers such as limited financial resources, lack of practical exposure, and regulatory constraints continue to impede the translation of intention into actual entrepreneurial action. The study offers important implications for higher education institutions and policymakers by emphasizing the need to integrate sustainability into entrepreneurship curricula, promote experiential learning, and strengthen entrepreneurial ecosystems. This research contributes to the growing body of literature on sustainable entrepreneurship by providing a theoretically grounded and context-specific framework that can be empirically tested in urban settings such as Bengaluru. The findings also extend the application of TPB in the context of sustainability-driven entrepreneurial behavior among students.*

Keywords: Sustainable Entrepreneurship; Entrepreneurial Intentions; Theory of Planned Behavior; Environmental Awareness; Higher Education; Green Ventures; Student Entrepreneurship; Emerging Economies

I. INTRODUCTION

Entrepreneurship in the contemporary era extends beyond the traditional objective of profit maximization and has increasingly evolved into a mechanism for addressing pressing societal and environmental challenges. This transformation has given rise to the concept of sustainable entrepreneurship, which emphasizes the integration of economic viability with environmental stewardship and social equity. Sustainable entrepreneurs not only generate economic value but also contribute to long-term ecological balance and inclusive development. Historically, entrepreneurial activities were primarily driven by economic growth and competitiveness. While such approaches significantly contributed to industrial development, they also resulted in environmental degradation, resource depletion, and social inequalities. In response, there has been a paradigm shift toward responsible and ethical business practices, where sustainability is embedded within entrepreneurial decision-making processes. Within this evolving context, students represent a critical segment of future entrepreneurs. With increased access to education, digital technologies, and global knowledge, students today are more aware of issues such as climate change, unemployment, and social injustice. Their ability to innovate and adapt positions them as key drivers of sustainable entrepreneurship. Universities



further support this transformation by offering entrepreneurship education, incubation facilities, and sustainability-focused programs. In emerging economies such as India, entrepreneurial ecosystems have witnessed rapid growth, particularly in urban centers like Bengaluru. The presence of advanced technological infrastructure, startup culture, and institutional support creates favorable conditions for student entrepreneurship. However, despite these opportunities, many students hesitate to pursue entrepreneurial ventures due to challenges such as limited financial resources, lack of practical exposure, inadequate awareness, and fear of failure. Against this backdrop, the present study aims to examine the factors influencing sustainable entrepreneurial behavior among university students. Specifically, it seeks to analyze the impact of sustainable entrepreneurship education, sustainability awareness, and entrepreneurial self-efficacy on students' perception toward sustainable entrepreneurship. Further, the study investigates the effect of students' perception on sustainable entrepreneurial behavior and examines its mediating role between key influencing factors and behavioral outcomes. Additionally, the study identifies major barriers hindering students from engaging in sustainable entrepreneurial activities and proposes recommendations to promote sustainability-driven entrepreneurship within higher education institutions. This study makes a significant contribution by addressing the critical gap between entrepreneurial intention and actual sustainable entrepreneurial behavior, particularly in the context of student populations. By integrating educational, psychological, and environmental dimensions within a unified framework, the research provides both theoretical and practical insights for fostering sustainability-oriented entrepreneurship. The findings are expected to assist policymakers, educators, and academic institutions in designing effective strategies to nurture green entrepreneurial ecosystems, especially in dynamic urban environments such as Bengaluru. Ultimately, the study contributes to the broader discourse on sustainable development by highlighting the role of student entrepreneurs in driving inclusive and environmentally responsible economic growth.

II. REVIEW OF LITERATURE

Sustainable entrepreneurship has gained increasing attention in recent years, particularly in the context of higher education and student-led ventures. A growing body of literature has explored the factors influencing entrepreneurial intentions; however, relatively fewer studies have examined the transition from intention to actual sustainable entrepreneurial behavior. Recent studies highlight the significant role of sustainability-oriented education in shaping entrepreneurial outcomes. For instance, Sharma, R. et al. (2023) found that sustainability education positively influences students' entrepreneurial intentions. Despite this contribution, their work primarily focuses on intention formation and lacks a practical framework for translating knowledge into real entrepreneurial activities. Similarly, Hameed, I. et al. (2022) emphasized the importance of behavioral constructs such as attitudes, subjective norms, and knowledge, drawing from the Theory of Planned Behavior. While their findings explain a substantial portion of behavioral variance, they do not incorporate external factors such as institutional support and financial constraints. The role of awareness and environmental values has also been widely discussed. Alemanji, J. et al. (2022) demonstrated that sustainability awareness enhances pro-environmental attitudes among students; however, the study does not clearly establish how such awareness translates into entrepreneurial action. In a similar vein, Kuckertz, A. and Wagner, M. (2018) found that individuals with strong environmental values are more inclined toward entrepreneurial activities, although their work remains limited to intention-based outcomes. From a conceptual perspective, Schaltegger, S. et al. (2018) provided a comprehensive framework integrating economic, environmental, and social dimensions of entrepreneurship. However, the study lacks empirical validation, particularly in the context of student entrepreneurship. Further, Ploum, L. et al. (2019) identified key competencies such as problem-solving and strategic thinking as critical for sustainable entrepreneurship, yet did not address how such competencies are developed within academic settings. Institutional support has also been recognized as a crucial enabler. Saeed, S. et al. (2019) highlighted the role of mentorship, training, and university support systems in fostering entrepreneurial activities. However, their study does not specifically address sustainability-oriented ventures. Similarly, Karimi, S. et al. (2020) demonstrated that entrepreneurship education enhances students' skills and self-efficacy, although sustainability aspects were not



explicitly considered. Additionally, Tiwari, P. et al. (2020) emphasized the influence of environmental concern and personal attitudes but did not extend the analysis to actual entrepreneurial behavior. Overall, the existing literature predominantly focuses on entrepreneurial intentions rather than actual sustainable entrepreneurial behavior. There is a clear research gap in understanding how key factors such as sustainability education, awareness, self-efficacy, and institutional support interact to influence the transformation of intention into real entrepreneurial action. Moreover, limited attention has been given to the mediating role of students' perception in this relationship, particularly within emerging economies such as India and urban entrepreneurial ecosystems like Bengaluru. Addressing this gap, the present study aims to examine the determinants of sustainable entrepreneurial behavior among university students and to provide a comprehensive framework for empirical analysis.

III. RESEARCH METHODOLOGY

This study adopts a systematic approach to examine the determinants of sustainable entrepreneurial behavior among university students. The methodology is designed to analyze the relationships between key constructs, including Sustainable Entrepreneurship Education, Sustainability Awareness, Entrepreneurial Self-Efficacy, students' perception, and sustainable entrepreneurial behavior. A descriptive and quantitative research design is employed to provide a structured understanding of the relationships among variables. The quantitative approach is appropriate for this study as it enables the collection of measurable data and facilitates statistical analysis to identify patterns, relationships, and trends among the constructs under investigation. The study is based on both primary and secondary data sources. Primary data were collected through a structured questionnaire administered to university students. The questionnaire was designed to capture key aspects such as students' awareness of sustainability concepts, exposure to entrepreneurship education, level of self-efficacy, perception toward sustainable entrepreneurship, and their behavioral inclination toward initiating sustainable ventures. The measurement items were adapted from established literature to ensure content validity. Secondary data were gathered from peer-reviewed journal articles, books, and credible online sources to provide theoretical support and contextual background for the study.

The research was conducted in Bengaluru, a prominent educational and entrepreneurial hub in India. A total of 95 questionnaires were distributed, of which 72 valid responses were collected and used for analysis, yielding an effective response rate suitable for exploratory analysis. The respondents were selected using a convenience sampling technique, enabling access to participants who were readily available and willing to contribute to the study. The sample comprised students from diverse academic backgrounds, including commerce, management, and engineering, thereby ensuring heterogeneity in perspectives. The majority of respondents belonged to the age group of 18–24 years and included both undergraduate and postgraduate students. Data collection was carried out across various localities such as Whitefield, KR Puram, Indiranagar, Yelahanka, Banaswadi, and Marathahalli, using both offline and online survey methods. For data analysis, descriptive statistical tools such as percentages, means, and graphical representations were employed to summarize and interpret the data. Microsoft Excel was used for data organization and visualization. While the primary focus of the study is quantitative, qualitative insights were also considered to interpret underlying behavioral patterns, particularly in relation to barriers such as fear of failure, lack of confidence, and limited practical exposure. The study was conducted over a period of three months, from February 2026 to April 2026. Despite its systematic design, the study has certain limitations. The use of convenience sampling and the focus on a single urban location may limit the generalizability of the findings to other regions, particularly rural contexts. Additionally, the relatively small sample size restricts the application of advanced statistical techniques.

IV. DATA ANALYSIS AND INTERPRETATION

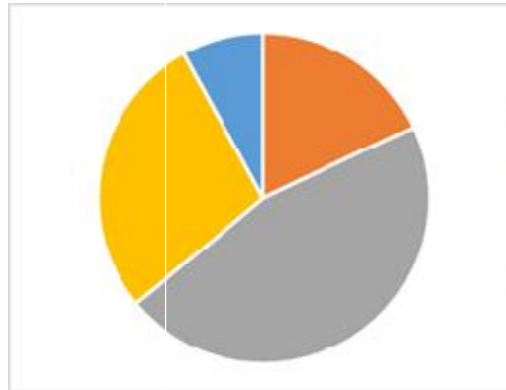
This section presents the demographic characteristics of the respondents included in the study. A total of 72 valid responses were collected from university students in Bangalore.



Table1: Age Distribution

Age Group	Percentage
Below 20	18%
20–22	46%
23–25	28%
Above 25	8%

Source: Primary Data



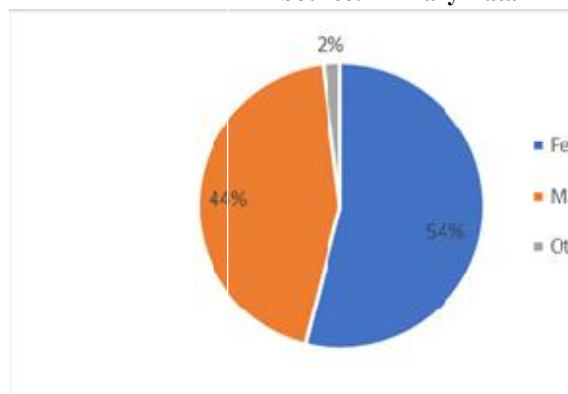
Interpretation

The majority of respondents (46%) fall within the 20–22 age group, indicating that the study primarily captures the views of young university students. This age group is generally more exposed to emerging trends such as sustainability and entrepreneurship. The lower representation of older students suggests that the findings mainly reflect early-stage academic perspectives.

Table 2: Gender Distribution

Gender	Percentage
Female	54%
Male	44%
Others	2%

Source: Primary Data



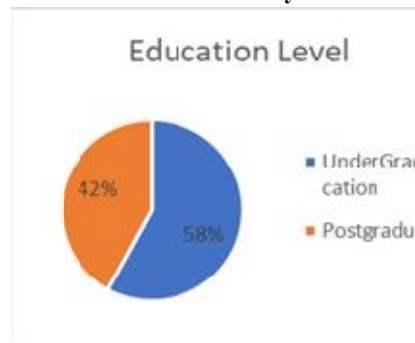
Interpretation

The sample consists of a slightly higher proportion of female respondents (54%) compared to males (44%). This balanced representation indicates that sustainable entrepreneurship is gaining interest across genders. The presence of respondents from diverse gender categories adds inclusivity to the study.

Table 3: Education Level

Education Level	Percentage
Undergraduate	58%
Postgraduate	42%

Source: Primary Data



Interpretation

Most respondents (58%) are undergraduate students, suggesting that the study mainly reflects individuals in the early stages of their academic journey. Postgraduate students (42%) provide relatively mature perspectives, contributing to a balanced understanding of the research problem.

Descriptive Statistics

Descriptive statistics provide a summary of the data by presenting the mean and standard deviation of each construct used in the study. These statistics help in understanding the overall response pattern of the respondents toward Sustainable Entrepreneurship Education, Sustainability Awareness, Entrepreneurial Self-Efficacy, Student Perception, and Sustainable Entrepreneurial Behavior.

Table 4: Descriptive Statistics Table

Variables	N	Mean	Std. Deviation
Sustainable Entrepreneurship Education (SEE)	72	3.84	0.72
Sustainability Awareness (SA)	72	4.02	0.68
Entrepreneurial Self-Efficacy (ESE)	72	3.76	0.74
Student Perception (SP)	72	3.89	0.70
Sustainable Entrepreneurial Behavior (SEB)	72	3.45	0.81

Source: Primary Data

Interpretation

Sustainable Entrepreneurship Education (SEE): sustainability issues. The relatively low standard deviation (0.68) reflects consistency in responses. Entrepreneurial Self-Efficacy (ESE): The mean value of 3.76 suggests that students have moderate confidence in their entrepreneurial abilities. However, the standard deviation (0.74) indicates variability, meaning not all students feel equally confident. Student Perception (SP): Student Perception has a mean score of 3.89, reflecting a generally positive attitude toward sustainable entrepreneurship. The standard deviation (0.70) suggests that most students share similar perceptions. Sustainable Entrepreneurial Behavior (SEB): The mean value of 3.45 is



comparatively lower than other variables, indicating that actual engagement in sustainable entrepreneurial activities is moderate. The higher standard deviation (0.81) suggests greater variation, meaning some students are actively involved while others are not.

V. FINDINGS AND RECOMMENDATIONS

The analysis of data collected from university students in Bengaluru reveals several important insights into sustainable entrepreneurial behavior. The demographic profile indicates that the majority of respondents belong to the 20–22 age group, highlighting that young students at an early stage of their academic journey are actively engaged with sustainability-related concepts. The dominance of respondents below 25 years further suggests that exposure to sustainable entrepreneurship begins early, particularly within higher education environments. Gender distribution shows a slightly higher participation of female students, indicating growing interest and involvement of women in sustainability-oriented entrepreneurship. This reflects broader trends of increasing inclusivity and gender diversity within entrepreneurial ecosystems. The educational background of respondents demonstrates that undergraduate students form the majority, suggesting that awareness and interest in sustainable entrepreneurship are cultivated during the initial stages of higher education. At the same time, postgraduate students contribute relatively more mature and informed perspectives, enriching the overall analysis. From a construct-level perspective, sustainability awareness emerges as the strongest factor, with the highest mean score (4.02), indicating that students possess a high level of understanding of environmental and social issues. Sustainable entrepreneurship education also shows a positive influence (mean = 3.84), suggesting that institutions are actively contributing to sustainability learning, although there remains scope for improvement in terms of depth and practical application. Entrepreneurial self-efficacy records a moderate mean value (3.76), indicating that while students are somewhat confident in their entrepreneurial abilities, this confidence is not uniformly distributed. This variation highlights the need for targeted interventions to enhance students' skills and self-belief. Student perception toward sustainable entrepreneurship is generally positive (mean = 3.89), reflecting favorable attitudes and alignment with sustainability values. However, a critical finding of the study is that sustainable entrepreneurial behavior has a comparatively lower mean score (3.45), indicating limited actual engagement in entrepreneurial activities. A significant gap is observed between sustainability awareness and actual behavior, suggesting that knowledge and positive attitudes do not necessarily translate into action. The higher variability in behavior (SD = 0.81) further indicates that while some students are actively involved in sustainable initiatives, a large proportion remains inactive. Overall, the findings highlight a “knowledge–action gap”, where high awareness and positive perceptions are not effectively converted into sustainable entrepreneurial practices. This gap underscores the need for stronger institutional mechanisms, practical exposure, and supportive ecosystems to facilitate behavioral transformation.

VI. CONCLUSION

The present study examined the factors influencing sustainable entrepreneurial behavior among university students in Bengaluru and provides important insights into the relationship between awareness, perception, and actual behavior. The findings reveal that students demonstrate a high level of sustainability awareness and hold positive perceptions toward sustainable entrepreneurship. Educational institutions are also contributing to this orientation through academic programs and sustainability-focused initiatives. However, despite favorable attitudes and awareness, the level of actual engagement in sustainable entrepreneurial activities remains moderate. This indicates a clear gap between knowledge and action, suggesting that awareness alone is insufficient to drive entrepreneurial behavior. The study identifies key barriers such as limited practical exposure, low entrepreneurial self-efficacy, inadequate institutional support, and fear of failure as critical factors constraining students from translating intention into action. From a theoretical perspective, the study extends existing literature by highlighting the limitations of intention-based models and emphasizing the importance of behavioral transformation in the context of sustainable entrepreneurship. It reinforces the need to integrate cognitive, educational, and environmental factors within a comprehensive framework to better understand



entrepreneurial behavior among students. From a practical standpoint, the study underscores the importance of experiential learning, skill development, and supportive entrepreneurial ecosystems in fostering sustainable ventures. Universities must move beyond theoretical instruction and actively facilitate real-world engagement through incubation support, mentorship, and funding opportunities. In conclusion, sustainable entrepreneurship among students can be significantly strengthened through a holistic approach that combines education, awareness, and practical support mechanisms. By addressing the identified gaps, educational institutions and policymakers can play a pivotal role in nurturing a new generation of entrepreneurs who contribute not only to economic growth but also to environmental sustainability and social well-being in emerging economies such as India.

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