

# EduPreneurship for Impact: Driving Sustainable Ventures and Employment through Higher Education in Rural North Central India

Mr. Reshabh Dev<sup>1</sup>, Dr. Ram Asrey<sup>2</sup>

<sup>1</sup>Research Scholar, Department of Commerce, University of Lucknow, Lucknow, Uttar Pradesh

<sup>2</sup>Head of department, Government Degree College, Kuchlai, Sitapur, Uttar Pradesh

## Abstract

This study investigates the role of higher education institutions (HEIs) in promoting sustainable entrepreneurship in rural areas of North Central India. It aims to assess how sustainability-focused training, university initiatives, and curriculum design contribute to preparing students for entrepreneurial ventures, ultimately fostering economic development and job creation in rural regions. A quantitative research design was adopted, utilizing a structured survey administered to 300 students and rural entrepreneurs. The data were analyzed using descriptive statistics, correlation analysis, regression modeling, and ANOVA to evaluate the impact of university-led sustainability initiatives on entrepreneurial readiness.

The results indicate a strong positive correlation ( $r = 0.968, p < 0.01$ ) between sustainability training and students' confidence in launching sustainable businesses. Moreover, university-led initiatives and training account for 93.7% of the variance ( $R^2 = 0.937$ ) in entrepreneurial preparedness. Despite these encouraging results, the study identifies significant gaps in experiential learning and industry exposure, suggesting the need for more practical engagement through mentorship and field-based training. The findings underscore the need for higher education institutions to integrate hands-on, sustainability-focused training into their entrepreneurship programs. Strengthening partnerships with industry and expanding mentorship opportunities can further enhance students' practical skills and readiness to pursue sustainable entrepreneurship in rural contexts.

This study offers novel insights into the intersection of sustainability, entrepreneurship, and education in the under-researched context of rural India. By emphasizing the pivotal role of HEIs, it provides actionable recommendations for curriculum reform and capacity-building initiatives aimed at empowering the next generation of rural entrepreneurs.

**Keywords:** Sustainable entrepreneurship, higher education, rural development, job creation, entrepreneurship training, sustainability-focused education.

## 1. Introduction

Sustainable entrepreneurship has emerged as a critical driver of economic development, particularly in rural areas where traditional job opportunities are limited. The integration of sustainability in entrepreneurship ensures long-term economic growth while addressing environmental and social concerns. In developing economies like India, rural entrepreneurship plays a crucial role in improving livelihoods, reducing poverty, and fostering community development. However, rural entrepreneurs often face challenges such as inadequate access to

financial resources, lack of business training, and limited market exposure. Higher education institutions (HEIs) can play a pivotal role in bridging these gaps by equipping students with the necessary skills, knowledge, and practical exposure to sustainable business practices.

In the north central region of India comes one of India's most populous states, rural entrepreneurship has significant potential but remains underdeveloped due to structural barriers. Universities and colleges have the potential to influence students' perceptions and preparedness for entrepreneurship by incorporating sustainability-focused courses, practical training, and university-led initiatives. However, the effectiveness of these educational interventions in fostering sustainable entrepreneurship and job creation remains an area of interest that requires empirical investigation.

### **1.1 Problem Statement**

Despite the increasing emphasis on sustainability and entrepreneurship education, there exists a research gap in understanding the direct impact of higher education on sustainable entrepreneurship, especially in rural settings. While previous studies have explored the role of universities in general entrepreneurship education, there is limited research focusing on how sustainability-focused training, mentorship, and university-led initiatives translate into real-world business creation in rural areas. Furthermore, little is known about whether students perceive themselves as equipped to establish sustainable businesses after receiving formal education.

This study aims to address these gaps by evaluating the role of higher education in shaping rural entrepreneurs' readiness for sustainable business ventures. Specifically, it examines how university-led initiatives, sustainability training, and curriculum design influence students' entrepreneurial aspirations and practical capabilities.

### **1.2 Objectives**

The primary objectives of this study are:

1. To assess the role of higher education institutions in fostering sustainable entrepreneurship in the rural north central region of India.
2. To evaluate the effectiveness of sustainability-focused training in equipping students with entrepreneurial skills.
3. To examine the impact of university-led initiatives, such as mentorship programs and industry collaborations, on students' perceptions of sustainable entrepreneurship.
4. To identify gaps in the current higher education curriculum that may hinder students from engaging in sustainable business practices.
5. To provide recommendations for enhancing the role of universities in promoting sustainable entrepreneurship and job creation in rural communities.

### **1.3 Significance of the Study**

This research is significant for multiple stakeholders, including policymakers, educational institutions, rural entrepreneurs, and development organizations. First, it provides empirical insights into how higher education can contribute to sustainable entrepreneurship, offering

valuable data for curriculum developers and university administrators. By identifying gaps in sustainability-focused training, the study can inform policy changes aimed at improving entrepreneurial education in rural areas.

For rural entrepreneurs and aspiring business owners, the findings can highlight best practices and the role of formal education in preparing them for sustainable business ventures. Additionally, this study contributes to the broader academic discourse on entrepreneurship and sustainability by bridging the knowledge gap in the Indian context, particularly in the rural north central region of India.

By examining the role of higher education in supporting rural entrepreneurs, this study aims to contribute valuable insights into sustainable entrepreneurship and job creation in developing regions. The results can serve as a foundation for further research and policymaking aimed at improving the effectiveness of entrepreneurship education in rural settings.

## **2. Literature Review**

Sustainable entrepreneurship has gained significant attention in recent years as a means of fostering economic growth while addressing social and environmental challenges. Higher education institutions (HEIs) play a crucial role in equipping future entrepreneurs with the skills and knowledge necessary for establishing sustainable businesses. However, despite the increasing emphasis on entrepreneurship education, its effectiveness in preparing students, particularly in rural areas, remains underexplored. This literature review examines existing studies on sustainable entrepreneurship, the role of higher education, and the challenges and opportunities associated with university-led initiatives in fostering entrepreneurship among rural communities.

### **2.1 Sustainable Entrepreneurship: Concept and Importance**

Sustainable entrepreneurship is defined as a business approach that integrates economic, social, and environmental considerations to ensure long-term viability (Schaltegger & Wagner, 2011). Unlike traditional entrepreneurship, which primarily focuses on profit maximization, sustainable entrepreneurship seeks to create value that benefits society and the environment (Shepherd & Patzelt, 2017).

### **Economic Contributions**

Numerous studies highlight the economic impact of sustainable entrepreneurship, particularly in rural areas. Research by Hall et al. (2010) suggests that sustainable entrepreneurs contribute to job creation, poverty reduction, and community development. Moreover, rural entrepreneurship fosters self-reliance, encourages local production, and reduces migration to urban centers (Parrish, 2010).

### **Social and Environmental Benefits**

Sustainable businesses often emphasize ethical production, renewable resources, and community well-being (Dean & McMullen, 2007). Entrepreneurs who integrate sustainability into their business models contribute to the preservation of natural resources and reduction of environmental degradation (Cohen & Winn, 2007). However, challenges such as financial

constraints, lack of awareness, and inadequate policy support often limit their success in rural regions.

### **The Role of Higher Education in Entrepreneurship Development**

The education system plays a fundamental role in fostering entrepreneurial mindsets and preparing students for real-world business challenges (Fayolle & Gailly, 2008). Higher education institutions (HEIs) serve as knowledge hubs that equip students with technical skills, business acumen, and sustainability principles (Gibb, 2002).

### **Entrepreneurship Education Models**

Several models have been developed to understand how entrepreneurship education influences business creation and sustainability. The Entrepreneurial Event Model (Shapero & Sokol, 1982) – Suggests that entrepreneurial intentions arise when an individual perceives an opportunity and has the necessary skills and support. The Theory of Planned Behavior (Ajzen, 1991) – Explains that entrepreneurial behavior is influenced by attitudes, social norms, and perceived behavioral control. The Triple Bottom Line Model (Elkington, 1997) – Advocates for balancing economic, social, and environmental aspects in business operations. These models provide a foundation for understanding how university education shapes entrepreneurial intentions and business sustainability practices.

### **University-Led Initiatives**

Studies show that students who participate in hands-on entrepreneurship programs are more likely to establish sustainable businesses (Pittaway & Cope, 2007). However, research also indicates that many entrepreneurship programs remain too theoretical, lacking real-world application (Neck & Greene, 2011).

## **2.2 Challenges in Sustainable Entrepreneurship Education**

### **Theoretical vs. Practical Learning Gap**

Many entrepreneurship courses focus on theoretical concepts rather than practical implementation (Henry, Hill, & Leitch, 2005). Studies suggest that students require experiential learning opportunities, such as internships and business simulations, to develop real-world entrepreneurial skills (Honig, 2004).

### **Limited Access to Funding and Resources**

Entrepreneurs, especially in rural areas, often struggle with limited access to financial capital, mentorship, and business networks (Haugh, 2007). Research suggests that universities need to strengthen partnerships with industry stakeholders and government bodies to provide financial support and incubation facilities for student entrepreneurs (Mason & Brown, 2014).

### **Lack of Interdisciplinary Approaches**

Many sustainability-focused entrepreneurship programs operate in isolation without integrating insights from disciplines such as environmental science, economics, and social

studies (Kirby, 2004). This limits students' ability to develop holistic, innovative solutions for sustainable business challenges.

### **Entrepreneurial Mindset and Risk Aversion**

Research indicates that many students perceive entrepreneurship as risky and uncertain, leading to low entrepreneurial intent (Krueger, Reilly, & Carsrud, 2000). Universities need to encourage risk-taking and innovation through problem-based learning and startup incubation support (Manolova, Eunni, & Gyochev, 2008).

### **2.3 Gaps in Existing Research and Rationale for the Study**

While existing studies acknowledge the role of higher education in entrepreneurship development, several gaps remain:

1. Lack of empirical research on sustainability-focused entrepreneurship education – Most studies focus on general entrepreneurship, with limited insights into sustainability-specific training in universities (Béchard & Toulouse, 1998).
2. Limited focus on rural entrepreneurship – The majority of entrepreneurship education research is urban-centric, ignoring the unique challenges and opportunities in rural areas (Jack & Anderson, 2002).
3. Need for longitudinal studies – There is a lack of long-term studies tracking entrepreneurial outcomes among graduates who received sustainability-focused education (Gielnik et al., 2015).
4. Evaluation of educational effectiveness – Many programs claim to support entrepreneurship, but few studies assess their real impact on student preparedness and business creation (Matlay, 2008).

This study aims to fill these gaps by providing empirical data on the effectiveness of university-led sustainability training in fostering rural entrepreneurship.

### **3. Research Methodology:**

This study employs a quantitative research methodology to examine the role of higher education in fostering sustainable entrepreneurship and job creation among rural entrepreneurs in the rural north central region of India. A survey research design was used to collect primary data from 300 respondents, including students and rural entrepreneurs. The study utilized a structured questionnaire with Likert-scale-based questions to measure perceptions of sustainability training, entrepreneurial preparedness, and university-led initiatives.

The sampling method adopted was random sampling, ensuring a diverse representation of participants across different education levels and locations. Descriptive statistics, including mean and standard deviation, were used to analyze demographic data. The study also employed correlation and regression analysis to determine the relationship between sustainability-focused education and entrepreneurial preparedness.

A Pearson correlation analysis was conducted to assess the association between university-provided sustainability training, entrepreneurial confidence, and university-led initiatives.

Further, a multiple regression analysis was used to evaluate the predictive power of higher education interventions on students' ability to start sustainable businesses.

Statistical tests, including ANOVA, confirmed the significance of the regression model, indicating that structured sustainability training within universities plays a pivotal role in preparing students for sustainable entrepreneurship. The findings suggest that enhancing practical training and industry engagement can further improve job creation in rural areas.

#### 4. Result:

**Table 1: Demographic distribution statistics**

	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
<b>Gender</b>	<b>300</b>	<b>1.60</b>	<b>.754</b>
<b>Age of participants</b>	<b>300</b>	<b>4.29</b>	<b>.680</b>
<b>Education Level</b>	<b>300</b>	<b>2.24</b>	<b>1.296</b>
<b>Location</b>	<b>300</b>	<b>1.56</b>	<b>.644</b>
<b>Valid N (listwise)</b>	<b>300</b>		

Source : Own Research

The descriptive statistics provided offer key insights into the role of higher education in fostering sustainable entrepreneurship and job creation among rural entrepreneurs in the rural north central region of India. The dataset comprises 300 respondents, with a mean gender value of 1.60 (SD = 0.754), likely indicating a greater representation of one gender. The mean age of participants (4.29, SD = 0.680) suggests that most respondents belong to a specific age group, potentially influencing their entrepreneurial engagement. Education level, with a mean of 2.24 and a standard deviation of 1.296, indicates a varied distribution of educational attainment among participants, which could impact their capacity for business innovation and sustainability. Additionally, the location mean of 1.56 (SD = 0.644) highlights the rural-urban composition of respondents, which is crucial in understanding accessibility to higher education and its impact on entrepreneurial activities. These statistics underline the significance of education in equipping rural entrepreneurs with the skills needed for sustainable business models. Higher educational institutions can play a pivotal role in bridging knowledge gaps, offering training, and fostering innovation, thereby enhancing job creation. By addressing educational disparities and providing targeted support, universities can empower rural entrepreneurs in Uttar Pradesh, contributing to long-term economic sustainability and employment generation.

**Table 2: Descriptive Statistics**

	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>

<b>My university provides sufficient training on integrating sustainability into entrepreneurship.</b>	300	4.27	.677
<b>Higher education institutions play a key role in promoting job creation in rural areas.</b>	300	4.27	.705
<b>I feel equipped with the necessary entrepreneurial skills to start a sustainable business in a rural setting.</b>	300	4.29	.680
<b>The curriculum in my university includes practical examples of sustainable business models for rural areas.</b>	300	4.29	.680
<b>Have you taken an entrepreneurship course at your university?</b>	300	1.51	.501
<b>University-led entrepreneurial initiatives have positively influenced my views on sustainability in business.</b>	300	4.34	.726
<b>Are there guest lectures or industry expert sessions regularly?</b>	300	1.61	.489
<b>Valid N (listwise)</b>	300		

Source : Own Research

The descriptive statistics provide valuable insights into the role of higher education in fostering sustainable entrepreneurship and job creation in the rural north central region of India. The high mean values for key statements—such as the adequacy of university training on sustainability (4.27, SD = 0.677), the role of higher education in rural job creation (4.27, SD = 0.705), and the inclusion of sustainable business models in the curriculum (4.29, SD = 0.680) suggest that universities are actively contributing to entrepreneurial education. Additionally, the mean score of 4.34 (SD = 0.726) indicates that university-led initiatives have positively shaped students' perceptions of sustainability in business. However, the responses regarding entrepreneurship course participation (1.51, SD = 0.501) and guest lectures by industry experts (1.61, SD = 0.489) reveal relatively lower engagement in these areas. This suggests potential gaps in experiential learning opportunities, which could enhance students' preparedness for sustainable entrepreneurship. The overall findings emphasize that while universities are making significant efforts to integrate sustainability into entrepreneurship education, further emphasis on hands-on experiences, expert interactions, and specialized courses may better equip students to establish sustainable businesses in rural areas. Strengthening these aspects can lead to enhanced job creation and long-term economic development in the rural north central region communities of India .

**Table 3: Correlations**

		My university provides sufficient training on integrating sustainability into entrepreneurship .	I feel equipped with the necessary entrepreneurial skills to start a sustainable business in a rural setting.	University-led entrepreneurial initiatives have positively influenced my views on sustainability in business.
My university provides sufficient training on integrating sustainability into entrepreneurship.	<b>Pearson Correlation</b>	1	.968**	.341**
	<b>Sig. (2-tailed)</b>		.000	.000
	<b>N</b>	300	300	300
I feel equipped with the necessary entrepreneurial skills to start a sustainable business in a rural setting.	<b>Pearson Correlation</b>	.968**	1	.344**
	<b>Sig. (2-tailed)</b>	.000		.000
	<b>N</b>	300	300	300
University-led entrepreneurial initiatives have positively influenced my views on sustainability in business.	<b>Pearson Correlation</b>	.341**	.344**	1
	<b>Sig. (2-tailed)</b>	.000	.000	
	<b>N</b>	300	300	300

\*\*. Correlation is significant at the 0.01 level (2-tailed).

Source : Own Research

The correlation analysis provides key insights into the relationship between sustainability training, entrepreneurial preparedness, and university-led initiatives in fostering sustainable business practices in rural areas. The Pearson correlation coefficient between university-provided sustainability training and students feeling equipped with entrepreneurial skills is 0.968, indicating a very strong positive correlation ( $p < 0.01$ ). This suggests that students who perceive their university as providing sufficient training on sustainability are also highly confident in their entrepreneurial abilities to start sustainable businesses in rural settings.

Furthermore, there is a moderate positive correlation ( $r = 0.341$ ,  $p < 0.01$ ) between sustainability training and university-led entrepreneurial initiatives shaping students' views on sustainability in business. Similarly, the correlation between entrepreneurial preparedness and the influence of university-led initiatives is 0.344 ( $p < 0.01$ ), indicating that exposure to sustainability-focused entrepreneurship programs positively impacts students' perceptions of sustainable business practices.

These findings highlight the critical role of higher education institutions in shaping future entrepreneurs. Universities that integrate sustainability-focused training effectively empower students with practical entrepreneurial skills, reinforcing the need for structured sustainability-driven curricula, hands-on training, and university-led initiatives. Strengthening these educational components can further support rural entrepreneurship, job creation, and long-term economic sustainability in the rural north central region of India.

**Table 4: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.968 <sup>a</sup>	.937	.937	.171

**a. Predictors: (Constant), University-led entrepreneurial initiatives have positively influenced my views on sustainability in business., My university provides sufficient training on integrating sustainability into entrepreneurship.**

Source : Own Research

The regression model summary provides crucial insights into how university-led entrepreneurial initiatives and sustainability training influence students' entrepreneurial preparedness for starting sustainable businesses in the rural north central region of India .

The R-value of 0.968 indicates a very strong positive relationship between the independent variables (university-led initiatives and sustainability training) and the dependent variable (students' entrepreneurial preparedness). The R-Square (0.937) suggests that 93.7% of the variation in students' perceived entrepreneurial preparedness is explained by the two predictors, signifying a highly predictive model. The Adjusted R-Square (0.937) further confirms that the model remains robust, even after adjusting for the number of predictors. The standard error of the estimate (0.171) is relatively low, indicating that the model has a good fit with minimal prediction errors.

These findings emphasize the critical role of higher education institutions in equipping students with sustainability-focused entrepreneurial skills. Universities that provide structured training on sustainability and strong entrepreneurial initiatives significantly enhance students' ability to start sustainable businesses, which in turn supports job creation in rural areas. Strengthening these educational interventions through hands-on learning, mentorship programs, and real-

world case studies can further boost students' entrepreneurial confidence and promote long-term rural economic development in the rural north central region of India.

**Table 5: ANOVA<sup>a</sup> analysis**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	129.490	2	64.745	2211.015	.000 <sup>b</sup>
	Residual	8.697	297	.029		
	Total	138.187	299			

**a. Dependent Variable: I feel equipped with the necessary entrepreneurial skills to start a sustainable business in a rural setting.**

**b. Predictors: (Constant), University-led entrepreneurial initiatives have positively influenced my views on sustainability in business., My university provides sufficient training on integrating sustainability into entrepreneurship.**

Source : Own Research

The ANOVA results assess the overall significance of the regression model, which examines how university-led entrepreneurial initiatives and sustainability training influence students' entrepreneurial preparedness for starting a sustainable business in a rural setting.

This high F-statistic value 2211.015 indicates that the model has a strong explanatory power, meaning the independent variables significantly impact students' entrepreneurial preparedness. The p-value is well below the standard threshold of 0.05, confirming that the regression model is statistically significant. This means that the combined effect of university-led initiatives and sustainability training is not due to random chance and has a real impact on students' entrepreneurial skills. Sum of Squares (Regression = 129.490, Residual = 8.697, Total = 138.187): A large proportion of the total variance (129.490 out of 138.187) is explained by the model, leaving very little unexplained variance in the residuals. This further supports the model's effectiveness.

The results strongly suggest that higher education institutions play a vital role in equipping students with the necessary skills for sustainable entrepreneurship. The significant impact of sustainability training and university-led initiatives underscores the need for more experiential learning, mentorship programs, and real-world applications to enhance students' ability to create sustainable businesses in the rural north central region of India. Strengthening these educational components can boost job creation, promote rural development, and drive long-term economic sustainability.

**Table 6: Regression Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1	(Constant)	.104	.075		.1389 .166
	My university provides sufficient training on integrating sustainability into entrepreneurship.	.966	.016	.963 62.155	.000
	University-led entrepreneurial initiatives have positively influenced my views on sustainability in business.	.015	.015	.015 1.000	.318

**a. Dependent Variable: I feel equipped with the necessary entrepreneurial skills to start a sustainable business in a rural setting.**

Source : Own Research

The regression coefficients table provides insight into how university-provided sustainability training and entrepreneurial initiatives influence students' preparedness to start a sustainable business in rural settings.

The constant with  $p = 0.16$  is not statistically significant ( $p > 0.05$ ), meaning that without the influence of the predictor variables, the baseline entrepreneurial preparedness is not significantly different from zero.

**Sustainability Training and Entrepreneurial :** The high Beta coefficient (0.963) and significant p-value (0.000) indicate that university-provided sustainability training is the strongest predictor of students feeling equipped to start a sustainable business. This suggests that structured sustainability-focused training programs significantly enhance students' entrepreneurial confidence and capabilities.

**University-led Entrepreneurial Initiatives and Entrepreneurial Preparedness :** The p-value (0.318) is greater than 0.05, meaning this variable does not significantly predict students' perceived entrepreneurial preparedness. This suggests that while university-led initiatives may influence sustainability awareness, they do not directly translate into students feeling prepared to start a sustainable business.

The analysis highlights that sustainability-focused training programs within universities have a significantly stronger impact on students' entrepreneurial preparedness compared to general university-led entrepreneurial initiatives. This underscores the importance of practical, skill-based education tailored toward sustainability rather than relying solely on broad entrepreneurial awareness programs.

To enhance the effectiveness of university-led initiatives, institutions should incorporate more hands-on experiences, case studies, mentorship programs, and collaborations with rural entrepreneurs. Strengthening these elements can bridge the gap between sustainability awareness and real-world entrepreneurial preparedness, ultimately fostering more sustainable businesses and job creation in the rural north central region of India .

## 5. Conclusion

This study examined the role of higher education in fostering sustainable entrepreneurship and job creation among rural entrepreneurs in the rural north central region of India. The findings highlight the significant impact of university-led initiatives, sustainability-focused training, and curriculum design in shaping students' entrepreneurial skills and preparedness for establishing sustainable businesses.

The research revealed that structured sustainability training in higher education significantly enhances students' confidence and skills in starting sustainable businesses. A strong positive correlation ( $r = 0.968$ ,  $p < 0.01$ ) was found between sustainability training and students' entrepreneurial preparedness, indicating that higher education plays a crucial role in shaping future entrepreneurs. However, university-led entrepreneurial initiatives showed a moderate impact ( $r = 0.341$ ,  $p < 0.01$ ) on students' perception of sustainability in business, suggesting that additional hands-on experiences and industry interactions may be needed.

The regression model ( $R^2 = 0.937$ ) confirmed that 93.7% of the variation in students' entrepreneurial preparedness can be explained by university-led sustainability training and initiatives. The ANOVA analysis ( $F = 2211.015$ ,  $p < 0.01$ ) further validated the significance of these predictors, reinforcing the importance of integrating practical entrepreneurship education within academic institutions.

However, the study also identified gaps in experiential learning, such as limited participation in entrepreneurship courses and industry expert sessions. While students acknowledge the importance of sustainability education, their exposure to real-world applications, mentorship programs, and hands-on business development opportunities remains insufficient.

## 6. Contributions of the Research

This study contributes to the growing body of research on entrepreneurial education and sustainability, particularly in the context of rural India. Unlike previous studies that focus on general entrepreneurship education, this research provides empirical evidence on the specific role of sustainability training in shaping rural entrepreneurs.

From a policy perspective, the findings emphasize the need for universities to redesign their entrepreneurship curricula, integrating more practical experiences, industry partnerships, and

sustainability-focused case studies. This can help students translate theoretical knowledge into practical entrepreneurial ventures, fostering sustainable business models in rural areas.

## 7. Practical and Theoretical Implications

The study has several practical implications for universities, policymakers, and entrepreneurs:

- Higher education institutions should develop interactive, hands-on training programs that combine theory with real-world applications to enhance students' entrepreneurial confidence.
- Government and policymakers should collaborate with universities to establish entrepreneurship incubators and mentorship programs in rural areas.
- Entrepreneurs and industry professionals should be engaged in educational initiatives through guest lectures, workshops, and collaborative projects, ensuring that students gain direct exposure to real business challenges.

From a theoretical perspective, this study validates existing entrepreneurship models by demonstrating the importance of sustainability-focused education in developing entrepreneurial intent and competence. Future research could explore the long-term impact of such education on business success rates, helping refine theories on entrepreneurship education and economic development.

## References

1. Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.
2. Bacq, S., & Janssen, F. (2011). The multiple faces of social entrepreneurship: A review of definitional issues based on geographical and thematic criteria. *Entrepreneurship & Regional Development*, 23(5-6), 373-403.
3. Béchard, J. P., & Toulouse, J. M. (1998). Validation of a didactic model for the analysis of training objectives in entrepreneurship. *Journal of Business Venturing*, 13(4), 317-332.
4. Cohen, B., & Winn, M. I. (2007). Market imperfections, opportunity, and sustainable entrepreneurship. *Journal of Business Venturing*, 22(1), 29-49.
5. Dean, T. J., & McMullen, J. S. (2007). Toward a theory of sustainable entrepreneurship: Reducing environmental degradation through entrepreneurial action. *Journal of Business Venturing*, 22(1), 50-76.
6. Elkington, J. (1997). *Cannibals with forks: The triple bottom line of 21st-century business*. Capstone Publishing.
7. Fayolle, A., & Gailly, B. (2008). From craft to science: Teaching models and learning processes in entrepreneurship education. *Journal of European Industrial Training*, 32(7), 569-593.
8. Gibb, A. (2002). In pursuit of a new 'enterprise' and 'entrepreneurship' paradigm for learning: Creative destruction, new values, new ways of doing things, and new combinations of knowledge. *International Journal of Management Reviews*, 4(3), 233-269.

9. Gielnik, M. M., Frese, M., Graf, J. M., & Kampschulte, A. (2015). Creativity in the opportunity identification process and the moderating effect of diversity of experiences. *Journal of Business Venturing*, 27(5), 559-576.
10. Hall, J. K., Daneke, G. A., & Lenox, M. J. (2010). Sustainable development and entrepreneurship: Past contributions and future directions. *Journal of Business Venturing*, 25(5), 439-448.
11. Haugh, H. (2007). Community-led social venture creation. *Entrepreneurship Theory and Practice*, 31(2), 161-182.
12. Henry, C., Hill, F., & Leitch, C. (2005). Entrepreneurship education and training: Can entrepreneurship be taught? Part I. *Education + Training*, 47(2), 98-111.
13. Honig, B. (2004). Entrepreneurship education: Toward a model of contingency-based business planning. *Academy of Management Learning & Education*, 3(3), 258-273.
14. Jack, S. L., & Anderson, A. R. (2002). The effects of embeddedness on the entrepreneurial process. *Journal of Business Venturing*, 17(5), 467-487.
15. Kirby, D. A. (2004). Entrepreneurship education: Can business schools meet the challenge? *Education + Training*, 46(8/9), 510-519.
16. Krueger, N. F., Reilly, M. D., & Carsrud, A. L. (2000). Competing models of entrepreneurial intentions. *Journal of Business Venturing*, 15(5-6), 411-432.
17. Manolova, T. S., Eunni, R. V., & Gyoshev, B. S. (2008). Institutional environments for entrepreneurship: Evidence from emerging economies in Eastern Europe. *Entrepreneurship Theory and Practice*, 32(1), 203-218.
18. Mason, C., & Brown, R. (2014). Entrepreneurial ecosystems and growth-oriented entrepreneurship. *OECD LEED Programme Papers*, 1-38.
19. Matlay, H. (2008). The impact of entrepreneurship education on entrepreneurial outcomes. *Journal of Small Business and Enterprise Development*, 15(2), 382-396.
20. Mian, S. (2014). Business incubation mechanisms and new venture performance: A review and research agenda. *International Journal of Entrepreneurial Behaviour & Research*, 20(6), 478-496.
21. Neck, H. M., & Greene, P. G. (2011). Entrepreneurship education: Known worlds and new frontiers. *Journal of Small Business Management*, 49(1), 55-70.
22. Parrish, B. D. (2010). Sustainability-driven entrepreneurship: Principles of organization design. *Journal of Business Venturing*, 25(5), 510-523.
23. Pittaway, L., & Cope, J. (2007). Entrepreneurship education: A systematic review of the evidence. *International Small Business Journal*, 25(5), 479-510.
24. Rasmussen, E., & Sørheim, R. (2006). Action-based entrepreneurship education. *Technovation*, 26(2), 185-194.
25. Rideout, E. C., & Gray, D. O. (2013). Does entrepreneurship education really work? A review and methodological critique of the empirical literature on the effects of university-based entrepreneurship education. *Journal of Small Business Management*, 51(3), 329-351.
26. Schaltegger, S., & Wagner, M. (2011). Sustainable entrepreneurship and sustainability innovation: Categories and interactions. *Business Strategy and the Environment*, 20(4), 222-237.