

# Innovations

## Fostering Sustainable Entrepreneurship: The Impact of Education and Training on Cultivating Skills and Knowledge

**Dr. David Kumije; Dr. Rosemary Nneoma Barnabas; Dr. Emmanuel Adejoh;  
Olumorin M. Olukemi**

<sup>1,2,4</sup>Department of Public Administration, Prince Abubakar Audu University,  
Anyigba. Nigeria

<sup>3</sup> Department of Public Administration, Salem University, Lokoja. Nigeria

---

**Abstract:** *Sustainable entrepreneurship combines sustainable development and entrepreneurship, aiming to create market solutions that address social and environmental challenges. Traditionally seen as a talent-driven field, recent research highlights the significant role of education in fostering entrepreneurship. This research emphasizes the need for educational models that promote sustainable entrepreneurship, confirming that education and training are crucial for developing and implementing innovative, sustainable business ideas. This is so because, the teaching, learning and research in Entrepreneurship in educational institutions seek to provide students with the knowledge, skills and motivation to encourage entrepreneurial success in a variety of settings. This paper is a conceptual discourse and utilizes basically secondary data. The paper found that entrepreneurship is a learnable process that can be taught, nurtured, supported and enhanced through education and training and therefore, worthy of study by students of all disciplines and managers of educational institutions. The paper recommended, among others the deliberate design of a robust curriculum system that integrates the principles of entrepreneurship and sustainability.*

**Keywords:** *Ecopreneurship, Entrepreneurship, Sustainable Entrepreneurship, Education and Skills*

---

### Introduction

Education is a tool which provides people with knowledge, skill, technique, and information, enabling them to know their rights and duties toward their family, society as well as the nation. It fosters the capacity to develop the capabilities to fight against poverty, injustice, violence, corruption and many other bad vices in the society Chetlal & Pushpa (2020). The roles of education are numerous which includes but not limited to the fact that it leads to economic prosperity in the global

marketplace enhanced through sustainable entrepreneurship. Thus, according to Chetlal & Pushpa (2020) people with good academic and educational backgrounds tend to get well-paid jobs and develop business acumen. The higher their education and accomplishments, the better employment and entrepreneurial options they get. People who grew up poor but educated themselves have high chances to transform their lives, thus contributing to a decrease in society's poverty rates. Education helps countries grow economically since it is about getting knowledge and being able to apply it wisely to our lives and, at the same time, improving other people's lives.

Developing countries' journey towards sustainable development is hindered by numerous challenges. Despite its wealth in natural and human resources, the countries struggle with high unemployment, poor infrastructure, limited access to quality education and healthcare, and environmental issues. These problems are further complicated by historical injustices, economic disparities, and a lack of opportunities for socio-economic progress (Agu, Kalu, Esi-Ubani & Agu, 2021). Entrepreneurship offers a promising solution to these issues by enabling individuals to start businesses, create jobs, and foster innovation. Entrepreneurship education, in particular, can significantly impact the local economy, enhance living standards, and encourage social inclusion (Agu, et al, 2021).

Research (Britannica, 2024, Hermon, Oosterbeck & Walker, 2023,, Wang, 2022 and Vander & Van, 2018) has found that education is the strongest determinant of individuals' occupational status and chances of success in adult life. However, the correlation between family socioeconomic status and school success or failure appears to have increased worldwide. Long-term trends suggest that as societies industrialize and modernize, social and economic class becomes increasingly important in determining educational outcomes and occupational attainment. While education is not compulsory in practice everywhere in the world, the right of individuals to an educational program that respects their personality, talents, abilities, and cultural heritage has been upheld in various international agreements, including the Universal Declaration of Human Rights of 1948; the Declaration of the Rights of the Child of 1959; and the International Covenant on Economic, Social and Cultural Rights of 1966 (Britannica, 2024). Thus, the impact of education and training on cultivating skills and knowledge is germane to developing, imbibing and sustaining entrepreneurial skills.

Interestingly, sustainable entrepreneurship is a dynamic and innovative approach that not only generates economic and non-economic benefits for its participants but also addresses societal challenges. This approach extends its positive impact to the surrounding environment and community, ensuring the preservation of nature and the environment. Advocates of sustainable entrepreneurship (Abdullah, 2020, Lindner, 2018, Ntsika, Thobeka & Bulelwa, 2024 and Shepherd & Patzelt, 2011),

argue that it is the most promising means to achieve social, economic, and environmental prosperity and stability for both current and future generations.

Rooted in the socio-economic principle of sustainable development, sustainable entrepreneurship thus incorporates ecological and societal limitations. It emphasizes the responsible use and redistribution of the world's natural, economic, and social resources to ensure their availability for future generations. This concept fundamentally challenges the traditional belief that there is an inevitable trade-off between economic profit and sustainability. Perceptively, it demonstrates that it is possible to achieve both economic success and sustainability simultaneously (Binder & Beilz, 2015).

Entrepreneurial culture is viewed as a sort of education that teaches the skills needed to start a new firm. For many years, education and scientific inquiry have been driven by the desire to discover the truth. The paradigm of innovation implied that scientists generated value in the process of their scientific research (Lindner, 2018). As societies advance, higher education has a complex task to enable knowledge to solve real problems with emergent economic effect. Evidence is rapidly growing that a great gap still existing between knowledge production and application might be successfully filled by entrepreneurship (Ntsika et al, 2024).

The meaning of entrepreneurship is narrowed to the ability to create a business plan, to establish an enterprise, or to start a business. However, broadly defined, entrepreneurship means the ability to create wealth; it also refers to the dynamic interaction between the individual and any opportunities in a given environment marked by a high degree of complexity and uncertainty (Wang, 2022). Belz & Binder (2017) note that entrepreneurship is surrounded by myths of risk taking, moment success and young people can get wrong attitude; therefore, it is important to study early experience of successful entrepreneurs. Farny & Binder (2021), notes that too often we over-emphasize the significance of product (services) in entrepreneurship instead of thinking about people. On the other hand, Ivar & Arne (2021) talking about history of the disk drive industry states, the disruptive innovations were technologically straight forward.

What is more, studies (Kurato & Hodgetts, 1998, Gast, Gundolf & Cesinger, 2017, Vander & Van, 2018 and Enefiok, 2018) have generally acknowledged that small-scale enterprises and the entrepreneurs that own and operate them contribute considerably to the economic development of nations. This is particularly so in developing nations where the challenge of poverty alleviation is still the primary concern of their governments. The growing concern of these nations at all levels of economic empowerment and related desire to reduce poverty, have given entrepreneurship and the resultant small and medium scale enterprises a rising visibility and attention (Enefiok, 2018). Thus, a lot of interest has been kindled for the study and understanding of the roles and importance of entrepreneurship especially

in employment generation and poverty reduction. Hence the need for proper placement of the study of entrepreneurship in educational institutions.

Accordingly, entrepreneurial development is about developing the capacity of individuals for entrepreneurship. It is not about developing the business directly but about conditioning and empowering the individual to develop an enterprise (Moses & Izedonmi, 2020). Thus, a deliberate policy of intervention in this regard can, therefore, influence the production of quality entrepreneurs. From the stand point of the entrepreneur, his/her willingness to learn and to be positively disposed to change can make a significant difference on how much development is achieved. Entrepreneurial development is about learning.

Furthermore, sustainable entrepreneurship describes the nexus between sustainable development and entrepreneurship. Sustainable development has become a central concept for policy, society, and business since the 1990s (Chikwuka, 2018). It is most commonly defined as “meeting the needs of the present without compromising the ability of future generations to meet their own needs” (WCED, 1987) in Farny & Binder (2021) This definition highlights the concept of *needs*, particularly the essential needs of the world's poor to which overriding priority should be given, and the idea of *limitations* imposed by the state of technology and social organization on the environment's ability to meet present and future needs. Sustainable development thus has to maintain intra-generational equity and also develop inter-generational equity, while recognizing the interdependence of the natural environment, societal welfare, and economic performance (UNO, 2014). Essentially, sustainable entrepreneurship aspires to create viable market solutions and to act as change agents who realize and exploit opportunities for sustainable development. Although all of these labels describe the dynamic link between enterprise, society, and the environment, their market and profit orientations differ (Binder, 2017). It is in this wise that entrepreneurship education teaches people a variety of abilities such as spotting business opportunities and launching new enterprises (Moses & Izedonmi, 2020)

### **Research Objective**

The main objective of this paper is to examine the role of education and the place of educational institutions in the inculcation of knowledge for entrepreneurial skills.

### **Methodology**

The paper made use of content analysis but both primary and secondary data were utilized. The primary data was purely participant observation while the secondary data were generated from existing literature on sustainable entrepreneurship and the value of educational institutions in the inculcation of knowledge and skills.

## Conceptualization

**Entrepreneurship:** Entrepreneurship is the process of identifying, creating, and pursuing opportunities to establish a new venture or innovate within an existing organization. It involves individuals, known as entrepreneurs, who take calculated risks to bring a novel idea, product, or service to the market. Importantly, entrepreneurship can be described as a well developed ability to recognize unexploited market opportunities. In this wise, Enefiok, (2018) defines entrepreneurship as the totality of those attributes that enable a person to identify latent business opportunities along with the capacity to organize needed resources with which to profitably take advantage of such opportunities in the face of calculated risks and uncertainties. We can therefore, say that crucial traits of entrepreneurship skills includes but not limited to self-assertiveness, unflinching conviction, self-confidence, self-reliant and optimism. A clearer understanding of the concept of entrepreneurship is vividly explained in the following key components:

**Innovation and Creativity:** Entrepreneurs often start with innovative ideas or solutions to address a gap in the market. Creativity plays a crucial role in generating unique business concepts. **Risk-taking:** Entrepreneurship involves a willingness to take risks, whether financial, social, or professional. Successful entrepreneurs understand how to manage and mitigate risks to achieve their goals. **Opportunity Recognition:** Entrepreneurs identify opportunities that others may overlook. This could involve recognizing a market need, technological advancement, or an untapped niche. **Business Planning:** Entrepreneurs create detailed business plans outlining their vision, mission, target market, revenue model, and operational strategies. This planning helps secure funding and guides the venture's development.

**Others include: Startups and Small Businesses:** Entrepreneurship is often associated with startups and small businesses. However, it also applies to individuals within larger organizations who drive innovation and create new initiatives. **Adaptability:** Entrepreneurs must be adaptable to changing circumstances. The business environment is dynamic, and successful entrepreneurs adjust their strategies to meet evolving market conditions. **Resource Management:** Efficient use of resources, including financial, human, and technological assets, is crucial. Entrepreneurs must maximize resource utilization to sustain and grow their ventures. **Networking:** Building a network of contacts is essential for entrepreneurs. Networking provides access to mentors, investors, collaborators, and potential customers, enhancing the chances of success.

**Persistence:** Overcoming challenges and setbacks is part of entrepreneurship. Persistent individuals persevere through difficulties, learn from failures, and continue to pursue their goals. **Social and Economic Impact:** Entrepreneurship contributes to economic development by creating jobs, fostering innovation, and

driving competition. Social entrepreneurship specifically focuses on addressing social or environmental issues. **Measuring Success:** Success in entrepreneurship can be measured by various factors, including financial performance, market share, customer satisfaction, and the impact on the community or industry. **Ethics and Social Responsibility:** Entrepreneurs are increasingly expected to operate ethically and consider their social and environmental responsibilities. This approach enhances long-term sustainability and reputation. In essence, entrepreneurship is a multifaceted concept that combines innovation, risk-taking, strategic planning, and adaptability. It plays a vital role in economic development and societal progress by fostering new ideas, businesses, and solutions.

**Sustainable Entrepreneurship:** Sustainable entrepreneurship, also known as green or eco-entrepreneurship refers to the practice of creating and growing a business while prioritizing environmental and social sustainability. This form of entrepreneurship aims to balance economic success with a commitment to minimizing negative impacts on the environment and society. A proper understanding of sustainable entrepreneurship can be summarized to include:

**Environmental Responsibility:** Sustainable entrepreneurs focus on minimizing the environmental footprint of their businesses. This involves adopting eco-friendly practices, reducing resource consumption, and implementing measures to mitigate pollution and waste. **Social Impact:** Beyond environmental concerns, sustainable entrepreneurship addresses social issues. This may include promoting fair labor practices, supporting local communities, and contributing to social well-being. **Triple Bottom Line:** Sustainable entrepreneurs often embrace the concept of the triple bottom line, which considers three dimensions of performance: economic, social, and environmental. Success is evaluated based on financial profitability, social responsibility, and environmental stewardship. **Innovation for Sustainability:** Sustainable entrepreneurs seek innovative solutions that address environmental challenges. This could involve developing eco-friendly products, utilizing renewable energy sources, or implementing circular economy practices. **Stakeholder Engagement:** Engaging with various stakeholders, including customers, employees, suppliers and the community, is a crucial aspect of sustainable entrepreneurship. Building positive relationships with stakeholders helps create a sustainable and ethical business ecosystem.

**Long-Term Perspective:** Sustainable entrepreneurs adopt a long-term perspective, considering the lasting impact of their decisions on the environment and society. This contrasts with short-term profit-maximization approaches. **Certifications and Standards:** Many sustainable entrepreneurs adhere to environmental certifications and standards to demonstrate their commitment to sustainability. Examples include organic certifications, fair trade labels, and carbon-neutral initiatives Circular

**Economy Practices:** Sustainable entrepreneurs embrace circular economy principles, emphasizing the reduction of waste and the efficient use of resources. This includes practices such as recycling, up cycling, and designing products for durability and recyclability. **Ethical Supply Chains:** Ensuring that the entire supply chain follows ethical and sustainable practices is a priority for sustainable entrepreneurs. This includes responsible sourcing of materials and ensuring fair labor conditions.

**Government and Regulatory Compliance:** Sustainable entrepreneurs stay informed about and comply with environmental regulations. They may also advocate for policies that promote sustainability at the local, national, or international levels.

**Consumer Awareness and Education:** Sustainable entrepreneurs often play a role in raising consumer awareness about environmental and social issues. Educating consumers empowers them to make sustainable choices and supports the growth of a more conscious market.

Thus, sustainable entrepreneurship aligns economic success with environmental and social responsibility. Entrepreneurs in this space aim to create businesses that not only thrive financially but also contribute positively to the well-being of the planet and its inhabitants.

**Education and Training:** Education is a systematic process of acquiring knowledge, skills, values, and attitudes through formal instruction, often in academic institutions. Training is a focused, practical learning process that aims to develop specific skills or competencies, often tailored to a particular job or task. Education refers to the discipline that is concerned with methods of teaching and learning in schools or school-like environments, as opposed to various non-formal and informal means of socialization. (Britannica, 2024)

The foundational stages of formal education, such as those provided at primary and secondary levels inculcate basic knowledge and skills. Higher education such as universities and colleges offer specialized education in various fields, leading to degrees and advanced qualifications. Education is not limited to formal institutions. Lifelong learning emphasizes continuous, self-directed learning throughout one's life, adapting to evolving knowledge and skills requirements. Learning also occurs informally through daily experiences, interactions, and exposure to various sources. Informal education complements formal education, contributing to a holistic understanding of the world. Vocational education prepares individuals for specific careers or trades, emphasizing practical skills and hands-on experience. It aligns closely with industry requirements. What is more, advances in technology have facilitated online education and training providing flexible, accessible learning opportunities. Massive Open Online Courses (MOOCs) and e-learning platforms offer a diverse range of courses.

Integration of technologies like smart-boards, virtual reality, and educational software enhances the learning experience, making education more interactive and engaging. Formal education often concludes with the attainment of degrees or certificates, providing recognized credentials that signify a certain level of knowledge and expertise. Besides, organizations conduct training needs analysis to identify gaps in employee skills and to determine the specific training programs that is needed to enhance performance. In this wise, continuous education and training are crucial for professional development, enabling individuals to stay current in their fields and advance their careers.

Education fosters cultural awareness and global understanding, preparing individuals to navigate diverse environments and contribute to global citizenship. Inclusive education emphasizes providing equitable learning opportunities for individuals with diverse abilities, backgrounds, and learning styles. These include apprenticeship programs which combine on-the-job training with classroom instruction, allowing individuals to gain practical experience while acquiring theoretical knowledge.

Education and training increasingly recognize the importance of social and emotional learning, developing interpersonal skills, self-awareness, and emotional intelligence. Ensuring access to education for all, regardless of socio-economic background, is a fundamental principle. Education is a key driver of social mobility and economic development. Education and training are dynamic processes that empower individuals with knowledge and skills, shaping their personal, professional, and societal contributions. The evolving landscape of education and training continues to adapt to the changing needs of individuals and the global community.

**Skills and Knowledge:** Skills and knowledge are essential components that contribute to an individual's competence and effectiveness in various domains of life, education, and work. Skills refer to the ability to perform specific tasks or activities effectively. They are developed through practice, experience, and learning and can be categorized into various types, including technical, interpersonal and cognitive skills. Technical Skills are specific, practical skills related to a particular field or industry such as programming skills, carpentry, or data analysis. Interpersonal Skills also known as soft skills, these involve communication, teamwork, and emotional intelligence. They are crucial for effective collaboration and relationship-building. Cognitive Skills include critical thinking, problem-solving, and creativity. Cognitive skills are essential for processing information, making decisions, and adapting to new situations.

Skills can be developed through education, training, and hands-on experience. Continuous learning and intentional skill development are essential for personal and



professional growth. However, certain skills are transferable across different roles and industries. Examples include effective communication, time management, and adaptability. These skills are valuable in diverse contexts. The ability to adapt to new situations and environments is a crucial skill. It involves flexibility, openness to change, and the capacity to learn and apply new information quickly. Leadership skills include the ability to guide, inspire, and influence others. Effective leaders possess communication skills, strategic thinking, and the capacity to make sound decisions. Problem-solving skills involve the ability to analyze issues, identify solutions, and implement effective strategies. This skill is valuable in personal, academic, and professional contexts. Effective communication involves expressing ideas clearly, actively listening, and understanding others. Strong communication skills are essential for collaboration, conflict resolution, and building positive relationships.

Teamwork skills are critical for working harmoniously with others toward common goals. This includes collaboration, communication within a team, and the ability to contribute effectively to group efforts. Time management skills involve prioritizing tasks, setting goals, and efficiently allocating time to meet deadlines. Effective time management enhances productivity and reduces stress.

Knowledge on the other hand is the understanding, awareness, and familiarity with facts, information, concepts, skills, and principles acquired through education, experience, and exploration. Types of Knowledge include:

**Explicit Knowledge:** This is a formal and codified knowledge that can be easily documented and shared, such as textbooks, manuals, or databases.

**Tacit Knowledge:** This is an Informal, experiential knowledge that is difficult to articulate, often gained through personal experience and practice.

**Education and Learning:** Knowledge is acquired through formal education, self-directed learning, and hands-on experience. Lifelong learning is crucial for staying informed and adapting to evolving environments.

**Domain-Specific Knowledge:** This refers to expertise in a particular field or subject. Professionals often acquire specialized knowledge related to their careers, such as medical knowledge for doctors or legal knowledge for lawyers.

**Critical Thinking:** Critical thinking involves analyzing information, evaluating arguments, and making informed decisions. It requires a depth of knowledge and the ability to assess information critically.

**Problem-Specific Knowledge:** Knowledge that is specifically applicable to solving particular problems. This may involve understanding the intricacies of a situation, industry, or technical issue.

**Continuous Learning:** In today's rapidly changing world, continuous learning is essential for acquiring new knowledge and skills. Embracing a growth mindset fosters a commitment to ongoing education and adaptation.

**Digital Literacy:** Knowledge of digital tools, technologies, and information is increasingly important. Digital literacy includes the ability to navigate online

platforms, use software, and critically assess information from digital sources. **Cross-Cultural Knowledge:** In a globalized world, awareness of different cultures, traditions, and perspectives is valuable. Cross-cultural knowledge facilitates effective communication and collaboration in diverse environments. **Ethical Knowledge:** Understanding ethical principles and values is crucial in personal and professional decision-making. Ethical knowledge guides individuals in making responsible choices that consider moral implications.

No doubt, skills and knowledge are integral aspects of personal and professional development. They complement each other, with skills representing the ability to apply knowledge effectively in various contexts. Continuous development of both skills and knowledge is essential for success in diverse areas of life.

### **Theoretical Foundation: The Ecopreneurship Theory**

Ecopreneurship theory, also known as environmental entrepreneurship or green entrepreneurship, focuses on the integration of environmental considerations into entrepreneurial activities. Thierry (2018) opined that it emphasizes the creation and management of businesses that not only pursue economic success but also prioritize environmental sustainability. Emphasizing the place of Ecopreneurship, he posit that, there are limits to resources but none to human creativity. Ecopreneurship is a form of entrepreneurship that centers on the development and operation of businesses with a commitment to environmental sustainability. Ecopreneurs aim to address ecological challenges while creating economically viable and successful ventures.

Ecopreneurship is a management philosophy whereby the business efforts of the entrepreneurs are not just only motivated by profit, but also by a concern for the environment. It is a term coined to represent the process of principles of entrepreneurship being applied to create businesses that solve environmental problems or operate sustainably. The term began to be widely used in the 1990s, and it is otherwise referred to as "environmental entrepreneurship". Ecopreneurs bridge the perceived contradictory worlds of the natural environment and business, with the goal of "radically" transforming industries, economies, and communities.

Ecopreneurship is the process of using entrepreneurial skills and innovation to create sustainable solutions for environmental and social issues. It is a way to foster economic growth and peace through sustainable practices. Ecopreneurship according to Hall, Daneke & Lenox, (2010) can be used to promote sustainable development, alleviate poverty, and create employment opportunities. They submitted that Ecopreneurship is a part of the economy that is demanded in modern open economies arising from the structural changes in society which is needed for the creation of entrepreneurship. Indeed, as Narayan & Prakash, (2023) puts it, Ecopreneurship is the process of using entrepreneurial skills and innovation to

create sustainable solutions for environmental and social issues. It is a way to foster economic growth and peace through sustainable practices. Ecopreneurship can be used to promote sustainable development, alleviate poverty, and create employment opportunities.

This understanding can be highlighted as follows:

**Triple Bottom Line Perspective:** Ecopreneurship aligns closely with the Triple Bottom Line (TBL) framework, considering the economic, environmental, and social impacts of business activities. This approach emphasizes a balanced evaluation of success that goes beyond financial metrics (Renfors 2020) in Narayan & Prakash, (2023). That is why Entrepreneurship education is defined as an educational program that is a source of entrepreneurial attitudes and overall interest in becoming successful entrepreneurs in the future. **Green Innovation:** Ecopreneurs focus on developing and implementing green innovations—products, services, or processes that have reduced environmental impact compared to traditional alternatives. This innovation contributes to sustainable practices and market differentiation. Adding to the significance of size of enterprise in ecopreneurship, Bhayani (2010) in Balogun, Adefulu, Makinde & Akinlabi, (2023) argue that an interesting aspect of economic growth is that much of it takes place through the growth in the size of existing organizations.

**Resource Efficiency:** Resource efficiency is a core principle of ecopreneurship. Businesses strive to minimize resource consumption, waste generation, and environmental pollution throughout their value chain, following the principles of sustainability and circular economy. **Environmental Responsibility:** Ecopreneurs actively take responsibility for the environmental consequences of their business activities. This includes reducing carbon footprints, adopting eco-friendly production methods, and sourcing materials sustainably. This is why Balogun et al, (2023) posit that Ecopreneurs are drivers of entrepreneurial actions that contribute to identify commercial business opportunity, as well as producing net environmental gains, namely: environmental, social and economic.

**Stakeholder Engagement:** Ecopreneurs engage with a broad range of stakeholders, including customers, suppliers, employees, and the local community. This engagement fosters relationships built on transparency, trust, and shared environmental values. **Life Cycle Assessment (LCA):** Ecopreneurs conduct Life Cycle Assessments to evaluate the environmental impacts of their products or services throughout their entire life cycle. This holistic approach helps identify areas for improvement and guide sustainable decision-making. **Eco-Labeling and Certification:** Many ecopreneurs seek eco-labeling or certification for their products to provide consumers with assurance of environmental responsibility. Labels such as "organic," "fair trade," or "carbon-neutral" communicate the commitment to sustainability. **Collaboration and Networks:** Ecopreneurs actively collaborate with

other businesses, NGOs, and governmental organizations to amplify their impact. Networking allows for shared resources, knowledge exchange, and collective efforts toward environmental goals.

**Green Marketing and Communication:** Ecopreneurs employ green marketing strategies to communicate their commitment to environmental sustainability. Transparent communication about eco-friendly practices helps build brand trust and attract environmentally conscious consumers. **Environmental Education:** Many ecopreneurs engage in environmental education and awareness initiatives. By educating their customers and communities about environmental issues, they contribute to a more informed and conscious consumer base. **Policy Advocacy:** Ecopreneurs may engage in policy advocacy to promote environmentally friendly regulations and incentives. They actively participate in shaping policies that support sustainable business practices at local, national, and international levels. **Risk Management:** Ecopreneurs integrate risk management strategies that consider environmental risks. This involves assessing and mitigating potential negative environmental impacts and staying ahead of evolving environmental regulations.

Ecopreneurship theory provides a framework for entrepreneurs to create businesses that prioritize environmental sustainability, contributing to a more ecologically responsible and resilient economic landscape. It is no wonder therefore, that Ecopreneurs are drivers of entrepreneurial actions that contribute to identify commercial business opportunity, as well as producing net environmental gains, namely: environmental, social and economic. Chukwuka (2018) stated that the ideal type of ecopreneurs is defined as one who creates green business in order to radically transform the economic sector in which he or she operates.

### **The place of Education and Training in fostering Entrepreneurship**

Education and training play crucial roles in fostering entrepreneurship by equipping individuals with the knowledge, skills, and mindset necessary to identify opportunities, take risks, and build successful ventures. Educational institutions globally are striving to transform into entrepreneurial hubs and generate innovative sources of revenue through approved research and adherence to government policies (Hoskisson, Eden, Lau & Wright, 2000; Rothaermel, Agung & Jiang, 2007) in Aribaba, Ahmodu, Adedokun, Yusuf & Omada, (2019). Promoting entrepreneurship has become essential in the 21st century. In fact, leading universities in the United States highlight the significant role of academic institutions in fostering high-tech start-ups. In technologically advanced countries, many entrepreneurs start their businesses while in college due to ongoing access to vocational training and development (Oteh, 2009 in Aribaba et al, 2019). Following are summary highlights of the place of education and training in fostering entrepreneurship:

**Formal Education:** Academic Programs such as those offered at Universities and educational institutions offer entrepreneurship programs that cover business concepts, startup strategies, and practical skills. These programs may include degrees in entrepreneurship or related fields. **Skill Development: Practical Skills:** Entrepreneurship education focuses on developing practical skills such as business planning, financial management, marketing, and leadership. These skills are essential for navigating the complexities of starting and running a business.

**Entrepreneurial Mindset:** Education fosters an entrepreneurial mindset characterized by creativity, innovation, and a willingness to take calculated risks. This mindset is foundational for individuals looking to venture into entrepreneurship. **Internships and Apprenticeships:** Providing opportunities for real-world experiences through internships and apprenticeships allows aspiring entrepreneurs to gain hands-on experience, learn from mentors, and understand the challenges of running a business. **Mentorship through Guidance from Experienced Entrepreneurs:** Mentorship programs connect aspiring entrepreneurs with experienced business leaders who can provide guidance, share insights, and offer support. Learning from the experiences of successful entrepreneurs is invaluable.

**Networking Opportunities:** Education facilitates networking opportunities allowing aspiring entrepreneurs to connect with industry professionals, potential partners and investors. Networking is crucial for building relationships that can support business growth. **Embracing Technological Advancements:** Entrepreneurship education incorporates the latest technological trends and innovations. This ensures that entrepreneurs are aware of and can leverage emerging technologies to enhance their business processes and offerings. **Access to Resources:** Educational institutions often serve as hubs that provide access to resources such as libraries, research facilities, and collaborative spaces. These resources can support entrepreneurial endeavors.

**Global Perspectives:** Entrepreneurship education may include components that provide a global perspective, preparing individuals to navigate the complexities of international markets and diverse cultural landscapes. **Understanding Financial Management:** Education in entrepreneurship includes financial literacy components, teaching individuals how to manage budgets, secure funding, and make informed financial decisions for their ventures. **Lifelong Learning Culture:** Entrepreneurship education instills a culture of continuous learning. As the business landscape evolves, entrepreneurs need to stay informed and adapt, and education fosters this mindset. **Inclusivity and Diversity:** Entrepreneurship education emphasizes the importance of diversity and inclusivity. This approach ensures that entrepreneurship is accessible to individuals from various backgrounds and perspectives. **Understanding the Entrepreneurial Ecosystem:** Education introduces individuals to the broader entrepreneurial ecosystem, including government policies, support

organizations, and industry trends. This awareness enhances their ability to navigate the business landscape.

### **How Universities Can Promote Sustainable Entrepreneurship**

The role of educational institutions in fostering entrepreneurship development through high quality education that promotes creativity, innovation and technology for the successful implementation of sustainable development cannot be overemphasized. The essence is to inculcate the spirit of entrepreneurship in the learner through formal education. The knowledge gained from the educational institution represents the source that would galvanise their applicability regionally or internationally. The introduction of entrepreneurship education in tertiary institutions is no doubt a measure to address the problem of graduate unemployment and strategically position economies for sustainable development (Rowell, 2023). This is so because unemployment among the youth is one of the fundamental challenges threatening the economic development of many nations.

That is why universities and other tertiary institutions can play a pivotal role in promoting sustainable entrepreneurship through various initiatives and strategies. The following are highlights of some effective ways:

**Curriculum Integration:** Incorporate sustainability and entrepreneurship into the curriculum through the introduction of Interdisciplinary Courses to incorporate sustainability and entrepreneurship topics across different disciplines, allowing students from various fields to gain an understanding of sustainable business practices. There could also be Case Studies and Projects: Use real-world examples and projects focused on sustainable entrepreneurship to help students apply theoretical knowledge to practical challenges. Again, workshops and seminars led by industry experts on topics such as green technologies, sustainable business models, and social entrepreneurship can be made mandatory.

**Research and Innovation Centers:** Establish centers dedicated to research and innovation in sustainable entrepreneurship.

**Incubators and Accelerators:** Create incubators and accelerators that focus on sustainable startups and Support Systems providing resources such as office space, funding, and mentorship. **Access to Expertise:** Connect students with experts in sustainability, offering guidance on developing eco-friendly products and business practices. **Networking Opportunities:** Create platforms for aspiring entrepreneurs to meet potential investors, partners, and like-minded individuals focused on sustainability.

**Partnerships and Collaborations:** Universities can foster partnerships with businesses, government agencies, and non-profit organizations to create a supportive ecosystem for sustainable entrepreneurship especially with businesses and organizations that prioritize sustainability to offer internships, co-op programs,

and joint research projects for students. **Government and NGOs:** Work with government bodies and non-governmental organizations to support policies and initiatives promoting sustainable entrepreneurship. **International Partnerships:** Engage in collaborations with universities and institutions worldwide to exchange knowledge, resources, and best practices in sustainable entrepreneurship.

**Workshops and Competitions:** Organize workshops, conferences, and competitions focused on sustainable entrepreneurship.

**Campus Sustainability Initiatives:** Implement sustainability practices on campus to serve as a living lab for students.

**Alumni Networks:** Leverage alumni networks to provide mentorship and support for current students interested in sustainable entrepreneurship.

By implementing these strategies, universities can create an environment that nurtures sustainable entrepreneurship and prepares students to become leaders in creating a more sustainable future. Thus, education and training create a foundation for entrepreneurship by combining theoretical knowledge, practical skills, and a supportive ecosystem. A well-rounded entrepreneurial education equips individuals to innovate, adapt, and succeed in the dynamic world of business.

### **Ecological Constraints to Sustainable Entrepreneurship**

Ecological constraints in sustainable entrepreneurship refer to the environmental limits and considerations that businesses must adhere to in order to operate sustainably. These constraints ensure that entrepreneurial activities do not deplete or harm natural resources, but instead contribute to the long-term health of the environment. Onu, 2013; Dracomir & Panzaru, 2015 and Rowell, 2023 among other researchers agree to the following key aspects:

**Resource Efficiency:** Sustainable entrepreneurs focus on using resources more efficiently. This includes minimizing waste, recycling materials, and using renewable resources whenever possible. The goal is to reduce the environmental footprint of their operations.

**Pollution Reduction:** Businesses must implement practices that reduce pollution. This can involve adopting cleaner production techniques, reducing emissions, and managing waste responsibly to prevent harm to air, water, and soil.

**Biodiversity Conservation:** Protecting biodiversity is crucial. Sustainable entrepreneurs often engage in practices that preserve natural habitats and protect endangered species. This can include sustainable sourcing of raw materials and supporting conservation efforts.

**Energy Use:** There is a strong emphasis on reducing energy consumption and shifting to renewable energy sources. This not only helps in cutting down greenhouse gas emissions but also promotes energy security and sustainability.

**Sustainable Supply Chains:** Ensuring that the entire supply chain adheres to sustainable practices is important. This means working with suppliers who also prioritize environmental responsibility and ensuring that products are produced, transported, and disposed of in an eco-friendly manner.

**Lifecycle Assessment:** Evaluating the environmental impact of a product or service throughout its entire lifecycle—from production to disposal—is a key practice. This helps in identifying areas where improvements can be made to reduce ecological impact.

By adhering to these ecological constraints, sustainable entrepreneurs can create businesses that not only thrive economically but also contribute positively to the environment. This holistic approach ensures that economic activities today do not compromise the ability of future generations to meet their own needs.

### **Developing Eco-Friendly Packaging to Sustainable Entrepreneurship**

Eco-friendly packaging is a crucial aspect of sustainable entrepreneurship, as it helps reduce the environmental impact of business operations. Elements and benefits of eco-friendly packaging includes but not limited to the following:

**Recyclable Materials:** Using materials that can be easily recycled, such as paper, cardboard, and certain plastics, helps reduce waste. These materials can be processed and reused, thus, minimize the need for new raw materials.

**Biodegradable and Compostable Options:** Packaging made from biodegradable materials, like plant-based plastics or natural fibers, breaks down more easily in the environment. Compostable packaging goes a step further by decomposing into non-toxic components which enriches the soil.

**Renewable Resources:** Utilizing materials sourced from renewable resources, such as bamboo, cornstarch, or sugarcane, ensures that the packaging is sustainable. In fact, these resources can be replenished naturally thereby reducing the strain on the environment.

**Minimalist Design:** Reducing the amount of packaging used is another effective strategy. This method use fewer materials and create less waste while still protect the product.

**Reusable Packaging:** Encouraging customers to return or reuse packaging can significantly cut down on waste. **Innovative Solutions:** Businesses are constantly developing new eco-friendly packaging solutions such as water-soluble films and packaging made from agricultural waste products.

By adopting eco-friendly packaging, businesses can not only reduce their environmental footprint but also appeal to eco-conscious consumers who prioritize sustainability. This approach aligns with the broader goals of sustainable entrepreneurship, which seeks to balance economic success with environmental responsibility.



## Conclusion

Entrepreneurship learning in higher education institutions can significantly drive sustainable development, especially in socio-economically challenged regions like those of developing nations. It equips students with essential skills and innovative mindsets. However, improvements are needed in faculty training, experiential learning, and partnerships. By addressing these areas and aligning curricula with sustainability goals, institutions can nurture responsible entrepreneurs who contribute to economic growth, social inclusion, and environmental stewardship. This highlights the transformative potential of entrepreneurship education in fostering sustainable development.

## Recommendations

The essence of sustainable entrepreneurship and its intersection with education are quite well germane. Indeed, education is pivotal in shaping entrepreneurs who can drive sustainable development. Therefore, we make the following recommendations:

**Deliberate design of the Curriculum:** The education that seeks to impact on sustainable entrepreneurship begins with a robust curriculum system that integrates the principles of sustainability among others.

**Innovative teaching methods:** Innovative teaching approaches, such as experiential learning, project-based learning, and co-creation, are essential. Surely, these will assist students to apply knowledge of theory to real world challenges of business.

**Support extension:** Educational institutions can seek support on sustainable entrepreneurship through well-meaning research centres and other network opportunities.

**Research and Development:** Encouraging research in sustainable entrepreneurship helps develop new models and strategies that can be applied in various contexts. They may equally include compulsory course(s) on the importance of sustainable entrepreneurship to the society and its environment.

By focusing on these areas among others, educational institutions can significantly contribute to the development of sustainable entrepreneurs who are capable of driving positive change in their communities and beyond.

## References

1. Abdullah, S. B. (2020). *Entrepreneurship education in technical vocational education and training (TVET) and models of implementation. Indonesia, Journal of Education and Practice: Ministry of Higher Education.*
2. Agu, A. G., Kalu, O. O., Esi-Ubani, C. O., and Agu, P. C. (2021). *Drivers of sustainable entrepreneurial intentions among university students: An integrated*

- model from a developing world context. *Int. J. Sustain. High. Educ.* 222/3, 659–680.
3. Aribaba F.O. Ahmodu, O.A. Adedokun, J.O. Yusuf, S.A. & Omada, V.I. (2019). *The Role of Educational Institutions in Fostering Entrepreneurship Development in Nigeria. Journal of Educational and Social Research.* Vol9/4. E-ISSN 2240-0524. ISSN 2239-978X
  4. Balogun, S. M., Adefulu, A. D., Makinde, O. G. & Akinlabi, B. H. (2023). *The Effect of Ecopreneurship on Organisational Performance as Moderated by Firm Size among Selected Foods and Beverages Manufacturing Firms in Lagos State and Ogun State, Nigeria. Journal of Economics, Finance and Management Studies.* Vol6 /6. June 2023.
  5. Belz, F. M., and Binder, J. K. (2017). *Sustainable entrepreneurship: A convergent process model. Bus. Strat. Env.* 26/1, 1–17.
  6. Binder, J. K. (2017). *Theorizing about sustainable entrepreneurship.* Munich: Technische Universität München
  7. Binder, J. K., and Belz, F.-M. (2015). “Sustainable entrepreneurship: What it is,” in *Handbook of sustainable entrepreneurship research.* Editor P. Kyrö (Cheltenham, UK: Edward Elgar Publishing).
  8. Budiarti, M (2012). *Analysis of the Influence of Entrepreneurship Education on Student Entrepreneurial Intentions (a case study of students of the extension program, the faculty of Economics, University of Indonesia), University of Indonesia*
  9. Bukirom M, Haryo I, & Andi P (2014). *The Influence of Entrepreneurial Education and Entrepreneurial Motivation on the Formation of Student Entrepreneurship, Media Economic. Management Journal.* Vol29/20. 144–152
  10. Chetlal, P & Pushpa, G (2020). *Educational Impact on the Society. International Journal of Novel Research in Education and Learning.* Vol7/6. Available at: [www.noveltyjournals.com](http://www.noveltyjournals.com)
  11. Chukwuka, J. B. (2018). *The effect of ecopreneurship on organizational performance of selected manufacturing firms in Africa evidence from Nigeria. Singaporean Journal of Business Economics and Management Studies,* 6/2., 468–479. [www.researchgate.net](http://www.researchgate.net).
  12. Dracomir, C.C. & Panzaru, S. (2015). *The Relationship between Education and Entrepreneurship in EU Member States. Review of General Management.* Vol22/2,
  13. *Encyclopedia Britannica, (2024). The Importance of Education.* Retrieved from [www.britannica.com](http://www.britannica.com)
  14. Enefiok, E.E. (2018), *Developing Entrepreneurship in Nigeria: Perspective, Profile and Prospect. African Journal of Entrepreneurship.* Vol11/3. ISSN 2006-5345.

15. Farny, S. & Binder, J. (2021) *Sustainable Entrepreneurship in L.P Dana (2nd eds), World Encyclopedia of Entrepreneurship, Edward Elgar Publishing, UK, 605-611. www.e-elgar.com*
16. Gast, J., Gundolf, K., and Cesinger, B. (2017). *Doing business in a green way: A systematic review of the ecological sustainability entrepreneurship literature and future research directions. J. Clean. Prod. 147, 44–56.*
17. Hall, J. K., Daneke, G. A., and Lenox, M. J. (2010). *Sustainable Development and Entrepreneurship: Past Contributions and Future Directions. J. Bus. Ventur. 25, 439–448.*
18. Harmon, C., Oosterbeek, H., & Walker, I. (2023), *The Returns to Education: Microeconomics. Journal of Economic Surveys, 17/2, 115-155*
19. Hermes, J. & Rimanoczy, I. (2018). *Deep learning for a sustainability mindset. International. Journal of Management Education. 16/3, 460–467.*
20. Lindner, J. (2018). *Entrepreneurship education for a sustainable future. Discourse and Communication for Sustainable Education 9/1, 115–127.*
21. Moses, C., & Izedonmi, P. F. (2020). *The effect of entrepreneurship education on students' entrepreneurial intentions. Global journal of management and business research 10/6, 49–60.*
22. Narayan, S. & Prakash, C.B. (2023). *Ecopreneurship: A Sustainable Model in Entrepreneurship Education for Transformation. International Journal of Scientific Research in Engineering and Management (IJSREM). Vol7/8. ISSN: 2582-3930*
23. Ntsika, D, Thobeka, N & Bulelwa, N.M (2024). *Entrepreneurship Education as a Catalyst for Sustainable Development in Higher Education Institutions. E-Journal of Humanities, Arts and Social Sciences (EHASS). Available online at: noyam.org*
24. Onu, A.J.C. (2013). *Stimulating Entrepreneurship in Educational Institutions in Nigeria. European Scientific Journal. Vol.9/25 ISSN: 1857 – 7881 (Print) e - ISSN 1857- 7431*
25. Rowell, E.U. (2023). *Entrepreneurship Education in Tertiary Institutions in Nigeria: A strategic option for National Development. Tropical Journal of Education, 5/12), 1 – 8. ISSN: 2645-2529 Available online at credencepressltd.com.*
26. Shepherd, D., & Patzelt, H. (2011). *The New Field of Sustainable Entrepreneurship: Studying Entrepreneurial action linking “what is to be sustained” with “what is to be developed”. Entrepreneurship Theory and Practice 35 (1), 137–163.*
27. Thierry, M., Salomon, M., Van N.J & Van W.L (2017) *Strategic Issues in Product Recovery Management. California Management Review. Vol37/2. 114–135.*
28. Thierry, V. (2018). *Ecopreneurship: Rationale, Current Issues and Future Challenges. California Management Review. Vol38/4 231-253*

29. *United Nations Educational (2014). Scientific, and cultural organization. Paris, France: UNESCO). UNESCO Roadmap for Implementing the Global Action Programme on Education for Sustainable Development UNESCO.*
30. *Vander S. J. & Van P. M (2018). Education and Entrepreneurship Selection and Performance: A Review of the Empirical Literature”, Journal of Economic Surveys 22/5: 795-841*
31. *Wang, W. (2022). Toward Economic Growth and Value Creation Through Social Entrepreneurship: Modelling the Mediating Role of Innovation. Frontiers in Psychology 3323.*