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ENTREPRENEURIAL EDUCATION AND AFRICA'S ATTAINMENT OF SUSTAINABLE DEVELOPMENT GOALS

Thanduyise Ngobese* and Andrisha Beharry-Ramraj*

ABSTRACT

Entrepreneurship has the potential to reduce poverty, stimulate economic growth and boost innovation, in addition to enhancing social and environmental sustainability. In accordance with the human capital theory and previous empirical studies, it is assumed that entrepreneurship education and training directly correlate with positive entrepreneurial outcomes and therefore sustainable development. Although several scholars have attempted to review and analyse entrepreneurship education and training literature over the past decade, none of these reviews directly links entrepreneurship education and training with sustainable development or focuses on the role and status of entrepreneurship education and training (research) in less-stable areas of the world. This article analyses recent literature to identify the extent to which entrepreneurship education and training research addresses Sustainable Development Goals (SDGs). The review identifies several gaps in research and practice that potentially hinder entrepreneurship education and training from adequately advancing sustainable development, including a dearth of research on African states and demographic diversity, limited entrepreneurship education and training access to non-university students and a general lack of focus on educational technology, progressive education approaches, and innovation in African countries compared to stable ones. The review also identifies challenges pertaining to entrepreneurship education and training resource constraints in fragile contexts. The article concludes by offering insights on how educational technology could mitigate entrepreneurship education and training challenges in developing Africa environments to ultimately ease some barriers towards SDG advancement and provides recommendations for future research directions.

Keywords: African states; the Sustainable Development Goals; educational technologies; and entrepreneurship education and training.

1. INTRODUCTION

Economic development through entrepreneurial education has become a major concern of all well-meaning countries of the world. There are a number of programmes and policies tailored towards the development of entrepreneurial mind-set among people from all walks of life in these countries. These programmes include both structured and unstructured ones. Entrepreneurship is becoming a focal point for the various economies of the world as a result of its potency to greatly influence economic growth and development through entrepreneurial drive and persistence Since there are now two billion people living in countries afflicted by instability, war, and violence, it is expected that the percentage of people living in extreme poverty in these countries will rise to more than 60% by 2030. Unstable settings with high rates of (youth) unemployment hinder economic growth while also fostering conflict and violence¹. According to evidence from the Sahel, for instance, the social stigma of unemployment and poverty motivates young people to join armed organizations to obtain social acceptability, while the absence of economic opportunity and the possibility of a stable income has led many Syrians to join extremist groups. ²

The cycle of poverty and violence cannot be ended until young people join the workforce. As they recognize the importance of economic empowerment to achieving the Sustainable Development Goals (SGD), the United Nations (UN) has been putting an emphasis on entrepreneurial initiatives to assist ambitious young people launch their own businesses and provide job opportunities for both them and others.³ Additionally, it has been demonstrated that entrepreneurship promotes social and environmental sustainability. It does so through positive benefits on several fronts, including

* University of KwaZulu-Natal, South Africa

Akintolu M and Uleanya C, 'Ensuring Sustainable Development Goal in Rural Africa through Adult Literacy Programme: A Case Study of Technology Usage in Developing Nations' (2021) 9(4) Universal Journal of Educational Research 713 https://doi.org/10.13189/ujer.2021.090401

David-West O and Nwagwu I, 'SDGs and Digital Financial Services (DFS) Entrepreneurship: Challenges and Opportunities in Africa's Largest Economy' in Entrepreneurship and the Sustainable Development Goals (2018) 103 https://doi.org/10.1108/s2040-724620180000008011

Nhamo G and Mjimba V, 'The Context: SDGs and Institutions of Higher Education' in Sustainable Development Goals and Institutions of Higher Education (2019) 1 https://doi.org/10.1007/978-3-030-26157-3_1

financial inclusion, women's liberation, sustainable agriculture, and minority integration.⁴ As a result, entrepreneurship offers immediate benefits to achieving Sustainable Development Goal 1 (poverty reduction): economic growth, lowering unemployment, increasing infrastructure development and technological innovation, boosting social equality and inclusion, and encouraging sustainable production and consumption.⁵ In contrast to individuals who acquire specialized training and entrepreneurial education, people who receive basic academic instruction are better equipped to invent new goods and processes, their human capital, abilities, and behaviors regarding entrepreneurship will improve.⁶ Entrepreneurship education and training is crucial to enabling entrepreneurship to attain its full potential in fragile and impoverished conditions, where untrained entrepreneurs predominate and small firm operations are frequently low-growth, survivalist.

The SDGs are a set of 17 global goals that were adopted by the United Nations in 2015. These goals seek to improve people's quality of life across the globe through sustainable development. The SDGs have been divided into three broad categories: Sustainable Development Goals, which address poverty and inequality; Sustainable Cities and Communities, which focus on urbanization and climate change; and Sustainable Livelihoods, which aim to increase employment opportunities for all. However, due to many less industrialized African states, lacking formal education systems' availability, quality, and regulation, new delivery techniques for interventions targeted at fostering entrepreneurship both within and outside of traditional formal educational institutions must be established.⁷ The ability to personalize learning, foster relationships between learners, raise student engagement, and

Mhamo G and Mjimba V, 'The Context: SDGs and Institutions of Higher Education' in Sustainable Development Goals and Institutions of Higher Education (2019) 1 https://doi.org/10.1007/978-3-030-26157-3_1

Dube K and Nhamo G, 'Sustainable Development Goals Localisation in the Tourism Sector: Lessons from Grootbos Private Nature Reserve, South Africa' (2020) 86(5) GeoJournal 2191 https://doi.org/10.1007/s10708-020-10182-8

Dean BA, Gibbons B and Perkiss S, 'An Experiential Learning Activity for Integrating the United Nations Sustainable Development Goals into Business Edu cation' (2018) 8(4) Social Business 387 https://doi.org/10.1362/2044408 18x15445231830058

Dean BA, Gibbons B and Perkiss S, 'An Experiential Learning Activity for Integrating the United Nations Sustainable Development Goals into Business Education' (2018) 8(4) Social Business 387 https://doi.org/10.1362/204440818x 15445231830058

provide access to a range of learning resources are all ways that adaptive learning technologies have the potential to be of tremendous service in less developed nations (Rashid, 2019)⁸.

Despite recent advancements in the entrepreneurship education and training research field and the publication of several literature reviews and meta-analyses in the area, little research connects the entrepreneurship education and training literature with sustainable development and, to my knowledge, none has been found that directly analyses entrepreneurship education and training's relationship to SDGs ⁹. Realizing entrepreneurship education and training's vital role in enhancing entrepreneurship in the advancement of (at least) six SDGs, it is essential to understand the target beneficiaries, approaches, outcomes and tools employed by current entrepreneurship education and training initiatives and their representation in highly reputable entrepreneurship journals ¹⁰.

This article therefore features a systematic literature review inspired by Eichler and Schwartz, where recent entrepreneurship publications in the entrepreneurship education and training area are analysed with respect to their contribution to SDGs 1, 5, 8, 9, 10 and 12. Though the review revealed adequate emphasis on outcomes of SDG 8, several gaps in research and practice are identified that potentially hinder entrepreneurship education and training from advancing other SDGs, including a dearth of research on African states and demographic diversity, limited entrepreneurship education and training access to non-university students and a general lack of focus on educational technology, progressive education approaches and innovation in fragile countries compared to stable ones. An analysis of key obstacles hindering entrepreneurship education and training from achieving its sustainable potential in fragile contexts follows. The prevalence of traditional education, lack of qualified teachers, lack of funding and limited access to

Rashid L, 'Entrepreneurship Education and Sustainable Development Goals: A Literature Review and a Closer Look at Fragile States and Technology-Enabled Approaches' (2019) 11(19) Sustainability 5343 https://doi.org/10.3390/su11195343

Hansen DJ and Wyman D, 'Beyond Making a Profit: Using the UN SDGs in Entrepreneurship Programs to Help Nurture Sustainable Entrepreneurs' (2021) 2(2) Journal of the International Council for Small Business 125 https://doi. org/10.1080/26437015.2021.1881931

Hansen DJ and Wyman D, 'Beyond Making a Profit: Using the UN SDGs in Entrepreneurship Programs to Help Nurture Sustainable Entrepreneurs' (2021) 2(2) Journal of the International Council for Small Business 125 https://doi.org/10. 1080/26437015.2021.1881931

entrepreneurship education and training appear to challenge several less stable countries. Educational technology, particularly ITS, is proposed to mitigate those challenges grounded by examples of successful implementations in various fields of education across several developing-country contexts.

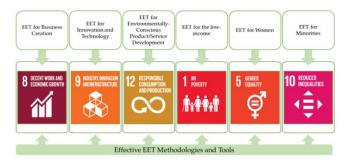
Entrepreneurship education and training hold immense potential as catalysts for achieving Sustainable Development Goals (SDGs), particularly in fragile and less industrialized regions. This systematic literature review underscores the critical role of entrepreneurship in addressing poverty (SDG 1), promoting gender equality (SDG 5), fostering decent work and economic growth (SDG 8), advancing industry, innovation, and infrastructure (SDG 9), reducing inequalities (SDG 10), and promoting responsible consumption and production (SDG 12). While there has been significant focus on SDG 8 outcomes, gaps persist in research concerning diverse demographics and regions, accessibility beyond traditional educational settings, and the integration of educational technologies in entrepreneurship education. Addressing these gaps is essential for leveraging entrepreneurship education's full potential to empower individuals, foster sustainable economic development, and contribute meaningfully to global efforts towards achieving the SDGs. By prioritizing innovative approaches and inclusive educational strategies, particularly through adaptive learning technologies, we can better support entrepreneurial endeavours in fragile contexts and ensure sustainable progress towards a more equitable and prosperous future worldwide.

2. DISCUSSION OF THE MEANING AND IMPORTANCE OF ENTREPRENEURSHIP EDUCATION FOR SUSTAINABLE DEVELOPMENT

Entrepreneurship plays a pivotal role in sustainable development by contributing to economic, social, and environmental dimensions. Entrepreneurs stimulate economic growth by creating new businesses, generating employment, and raising national income, particularly through small and medium-sized enterprises. They are often innovators, developing new technologies, products, and services that enhance efficiency and reduce environmental impact. Social entrepreneurs address societal issues such as education, healthcare, and clean water access, thereby improving the quality of life for underserved communities. Green entrepreneurs promote environmentally friendly products and practices, contributing to the

reduction of carbon footprints and the preservation of natural resources. Entrepreneurial activities also lead to the development of local economies, empowering communities, reducing regional disparities, and fostering inclusive growth. Effective policies and institutional support that provide access to finance, education, and infrastructure are crucial for creating a conducive environment for entrepreneurship. This synergy between entrepreneurship and sustainable development ensures long-term value creation for businesses, society, and the environment, aligning with the United Nations' Sustainable Development Goals.

Entrepreneurs that are creative and replicable are essential for sustainable growth, it has been found. Whether or whether there are comparable businesses currently on the market, homologous recombination individuals who launch new businesses are crucial for eradicating poverty, creating competition, and increasing the availability of commodities¹¹. Therefore, replicative firms will directly advance SGDs 1 and 8 by contributing to the battle against unemployment and the eradication of poverty. Creative business owners, on the other hand, are the ones who provide the public with the novel services and goods they require, encourage entrepreneurship education, market knowledge and original concepts, and result in profitability and bring about intrinsic change that may threaten the existing quo ¹².



Mwila NK and Wemba MC, 'Eliciting a Profile of Handicraft Entrepreneurs in Maboneng' (2018) 14(2) World Journal of Entrepreneurship, Management and Sustainable Development 114 https://doi.org/10.1108/wjemsd-03-2017-0011

Bux S and Van Vuuren J, 'The Effect of Entrepreneurship Education Programmes on the Development of Self-Efficacy, Entrepreneurial Intention and Predictions for Entrepreneurial Activity' (2019) 19(2) Acta Commercii https://doi.org/10.4102 /ac.v19i2.615

Figure 1: Entrepreneurial Education and Sustainable Development Goals Source: Entrepreneurship Education and Sustainable Development Goals: A Literature Review and a Closer Look at Fragile States and Technology-Enabled Approaches. Sustainability (Rashid, 2019).

Entrepreneurship can promote social, environmental, and economic sustainability in addition to each other 13. Among other things, encouraging female entrepreneurs immediately aids in attaining SDG (Sustainable Development Goals) 5 by empowering women, enhancing their quality of life, fostering economic development, and diversifying their business models ¹⁴. Moreover, migrant and refugee entrepreneurship enhances social integration, self-determination, and psychological well-being, reduces dependence on welfare and foreign aid, offers job possibilities for further immigrants, and promotes domestic entrepreneurship, providing additional evidence of the power of entrepreneurship to alleviate inequality and boosting social cohesion 15. A further factor that might improve sustainable output and consumption is new green business innovations in the manufacturing, energy, packaging, and other sectors. Better levels of knowledge, capabilities, and useful talents are positively connected with labor market productivity, according to the theory of human capital, which places emphasis on the need to invest in human capital to promote economic growth ¹⁶. According to some, adequate secondary and postsecondary education promotes the growth of creative and inventive people with the skills needed to launch a business, especially in entrepreneurship ¹⁷.

Omazic A and Zunk BM, 'Semi-Systematic Literature Review on Sustainability and Sustainable Development in Higher Education Institutions' (2021) 13(14) Sustainability 7683 https://doi.org/10.3390/su13147683

Omazic A and Zunk BM, 'Semi-Systematic Literature Review on Sustainability and Sustainable Development in Higher Education Institutions' (2021) 13(14) Sustainability 7683 https://doi.org/10.3390/su13147683

Uduji JI, Okolo-Obasi EN and Asongu SA, 'The Impact of Corporate Social Responsibility Interventions on Female Education Development in the Rural Niger Delta Region of Nigeria' (2020) 20(1) Progress in Development Studies 45 https://doi.org/10.1177/146499342090259

Mhlanga D, 'Human-Centered Artificial Intelligence: The Superlative Approach to Achieve Sustainable Development Goals in the Fourth Industrial Revolution' (2022) 14(13) Sustainability 7804 https://doi.org/10.3390/su14137804

Codjoe SN and Atiglo DY, 'The Implications of Extreme Weather Events for Attaining the Sustainable Development Goals in Sub-Saharan Africa' (2020) 2 Frontiers in Climate https://doi.org/10.3389/fclim.2020.592658

It is crucial to give entrepreneurship education and training to kids at various times and under different conditions since the effects of entrepreneurship education and training may vary based on the situation and target audience. According to a World Bank study that compiles information from 230 entrepreneurship education and training program assessments in developing countries 18, entrepreneurship is beneficial. While postsecondary education supports the development of entrepreneurial skills and attitudes, the secondary school promotes entrepreneurial behavior and the development of critical socio-emotional abilities. The study also demonstrates that training for prospective business owners has a favorable impact on their operational procedures and aids in developing new enterprises 19. On the other hand, it can assist those who are already engaged in entrepreneurship in gaining access to money. This clearly proves how important it is to offer Entrepreneur Education Training at various levels outside of developed and secure countries. Because it is believed that Entrepreneur Education Training positively connects with entrepreneurial activity, believed entrepreneurship education and training efforts could support several advanced SDGs. Therefore, entrepreneurship education and training activities emphasizing outcomes like corporate growth, innovation, and technology, as well as the creation of environmentally conscious goods and services, are necessary to progress SDGs 8, 9, and 12 in that order.

SDGs 1, 5, and 10 may all be addressed in that order through entrepreneurship education and training programs focusing on low-income women, girls, and minority groups. One cannot expect to provide education and training on its own to accomplish its objectives without taking delivery techniques into account. ²⁰ made a distinction between classic and innovative educational methods. To children that were receptive, a teacher would frequently present standardized material. As a result of progressive education's emphasis on individual learning-by-doing, which considers each learner's talents and interests; teachers increasingly serve as knowledge

Mio C, Costantini A and Panfilo S, 'Performance Measurement Tools for Sustainable Business: A Systematic Literature Review on the Sustainability Balanced Scorecard Use' (2021) 29(2) Corporate Social Responsibility and Environ mental Management 367 https://doi.org/10.1002/csr.2206

Olominu T, Youth Education, Unemployment and Entrepreneurship in Nigeria: Pointers for Accessing SDG Goal 8' (2018) 2(1) Young African Leaders Journal of Development https://doi.org/10.32727/24.2018.34

Jariwala V, 'Marching towards Millennium Development Goals (MDGs) to Sustainable Development Goals (SDGs) in Indian Context' (2017) SSRN Elec tronic Journal https://doi.org/10.2139/ssrn.3069427

facilitators rather than knowledge providers²¹. Modern methods that combine learning and experience are required for entrepreneurship education if it is to reflect on future workplaces and foster critical thinking, reflection, and teamwork. This education attempts to challenge conventional educational methods, empower individuals, have an impact on the world, and be more inventive.

2.1 Entrepreneurship Education and Sustainable Development Goals

Poverty and hunger are inextricably linked, just as employment promotes economic development and progress and sustainability leads to the same things.²² The Sustainable Development Goals are designed to build on the momentum started by the Millennium Development Goals and reduce poverty to its lowest level by the end of the decade by "providing people in every corner of the globe the help they need to elevate themselves out of poverty in all its manifestations." However, a career-focused education will aid people in their efforts to escape poverty. To end poverty, it is crucial to include people, especially the young, in economic development and initiative. Starting to impart entrepreneurial education will be vital if we want to promote social and economic sustainability. According to ²³, Goal 1 seeks to eradicate poverty through several interconnected initiatives, such as support from social protection organizations, aiding the unemployed in finding suitable jobs, and building up their resilience.

The challenge for entrepreneurs in education is bridging the gap between online learning and practical experience. The COVID-19 scenario has made it more urgent to find new, creative solutions to this issue. Even though advocates for experiential learning have been around for a while, COVID-19 restrictions have made it difficult to put experiential learning into practice. Experiential learning allows students to learn by doing. This kind of learning has attracted a sizable following among entrepreneurs who enjoy the practicality of their courses. Entrepreneurship students evaluate then reflect

Ratten V, 'Coronavirus Disease (COVID-19) and Sport Entrepreneurship' (2020) 26(6) International Journal of Entrepreneurial Behavior & Research 1379 https://doi.org/10.1108/ijebr-06-2020-0387

²² Iwuoha JC, 'Rising Unemployment in Nigeria-Public Debt to the Rescue?' (2020) 3(2) Current Research Journal of Social Sciences and Humanities 280 https://doi.org/10.12944/crjssh.3.2.14

Ruiz-Rosa I, Gutiérrez-Taño D and García-Rodríguez FJ, 'Social Entrepreneurial Intention and the Impact of COVID-19 Pandemic: A Structural Model' (2020) 12(17) Sustainability 6970 https://doi.org/10.3390/su12176970

on their experiences to cope with reality head-on ²⁴. This enhances a student's ability to communicate with business professionals, making the transition from student to practitioner easier.

2.2 Teaching Entrepreneurship Education through Research and Innovation

If entrepreneurship is just seen as a subset of the social sciences, the curriculum will not be effective. The curricula, the learning tools, or the teaching methods are typically to blame for issues with entrepreneurship education programs ²⁵. In this approach, Europe is working on a project called Europe, whose main goal is to make Europe a magnet for entrepreneurship. According to ²⁶, the continent is seeking imaginative, intelligent, and ambitious people who, regardless of their line of work, have the drive and curiosity to think in novel ways as well as the courage to confront and adapt to the challenges they encounter²⁷. The goals of the program should dictate the subjects covered and the teaching strategies employed, ranging from theoretical classes aimed at fostering an entrepreneurial mindset to practical ones aimed at producing graduates who are prepared to launch a firm. Entrepreneurial learning techniques and training that prioritizes application can work together to help students refine their entrepreneurial skills²⁸.

Apostolopoulos N, Al-Dajani H, Holt D, Jones P and Newbery R, 'Entre preneurship and the Sustainable Development Goals' in Entrepreneurship and the Sustainable Development Goals (2018) 1 https://doi.org/10.1108/s2040-724620180 000008005

Littlewood D and Holt D, 'How Social Enterprises Can Contribute to the Sustainable Development Goals (SDGs) – A Conceptual Framework' in Entrepreneurship and the Sustainable Development Goals (2018) 33 https://doi.org/10.1108/s2040-724620180000008007

Nhamo G and Mjimba V, 'The Context: SDGs and Institutions of Higher Education' in Sustainable Development Goals and Institutions of Higher Education (2019) 1 https://doi.org/10.1007/978-3-030-26157-3_1

Mio C, Costantini A and Panfilo S, 'Performance Measurement Tools for Sustainable Business: A Systematic Literature Review on the Sustainability Balanced Scorecard Use' (2021) 29(2) Corporate Social Responsibility and Environmental Management 367 https://doi.org/10.1002/csr.2206

Mhlanga D, 'Human-Centered Artificial Intelligence: The Superlative Approach to Achieve Sustainable Development Goals in the Fourth Industrial Revolution' (2022) 14(13) Sustainability 7804 https://doi.org/10.3390/su14137804

There is a perspective on what it means to start a business. This viewpoint is divided into two halves²⁹. The first is that operating a business and being an entrepreneur go hand in hand. This is how starting a new business or pursuing entrepreneurship as a profession is described. Second, entrepreneurship is the process of taking advantage of a business opportunity. This is how entrepreneurship is conceptualized behaviorally. These techniques are essential for structuring curricular content to convey the required skills and competencies³⁰.

2.3 Objectives of Entrepreneurship Education

³¹ are of the view that entrepreneurship education tries to prepare people to be responsible, to take risks, to manage the business and to learn from the outcomes by immersing themselves in real-life learning experiences. The main objective of entrepreneurship education is to foster the creation of new entrepreneurs who could start new ventures. Entrepreneurship education seeks to prepare people to be responsible, enterprising individuals, who become entrepreneurial thinkers and contribute to sustainable economic development. It is also the objective of entrepreneurship education to encourage creative thinking and to promote a strong sense of self-worth and accountability. Entrepreneurship knowledge and skills are essential resources for the success of SMMEs and ultimately for economic development.

Entrepreneurship education has been driven especially by academics, business leaders, entrepreneurs as well as government officials seeking an advantage in a globalised world. ³² Outlined three main sources that demand entrepreneurship education.

Dube K and Nhamo G, 'Sustainable Development Goals Localisation in the Tourism Sector: Lessons from Grootbos Private Nature Reserve, South Africa' (2020) 86(5) GeoJournal 2191 https://doi.org/10.1007/s10708-020-10182-8

Dube K and Nhamo G, 'Sustainable Development Goals Localisation in the Tourism Sector: Lessons from Grootbos Private Nature Reserve, South Africa' (2020) 86(5) GeoJournal 2191 https://doi.org/10.1007/s10708-020-10182-8

Rämer A, Tewes-Gradl C and Knobloch C, 'Participatory Market Research for BoP Innovation' in Base of the Pyramid 3.0: Sustainable Development through Innovation and Entrepreneurship (n.d.) 45 https://doi.org/10.9774/gleaf.978-1-78353-202-5_5

Bruns B, Macdonald IH and Schneider BR, 'The Politics of Quality Reforms and the Challenges for SDGs in Education' (2019) 118 World Development 27 https:// doi.org/10.1016/j.worlddev.2019.02.008

They agree with Jack and Anderson who pointed out that the government expect entrepreneurship education to contribute to job creation, economic growth, skills enhancement and the development of an entrepreneurial culture which will ultimately eradicate poverty. Businesses, on the other hand, expect entrepreneurship education to develop a general understanding of basic business issues, creative work attitudes and an entrepreneurial approach among learners. Learners are said to expect entrepreneurship education to assist them in their quest to start new ventures and to develop skills that will allow them to be employable in bigger firms.

Practising entrepreneurs expect entrepreneurship education to help them solve the unique problems in their businesses. Practising entrepreneurs seek to grow their businesses, maximise their profitability, and dominate the market. Solomon identified focus areas that should be covered in entrepreneurship education. He states that entrepreneurship education needs to include skill building in negotiation, leadership, new product development, exposure to technological innovation and creative thinking. Other areas that can be identified as crucial for entrepreneurship education include awareness of entrepreneurial career options, sources of capital, characteristics that define entrepreneurial personality, idea protection and challenges that can be faced at each stage of business development.

33 Stress that entrepreneurship education aims at building the so- called entrepreneurial competencies, which are considered as combinations of different entrepreneurial skills, knowledge and attitudes. Bosworth, reported that entrepreneurship education is structured to enable individuals to be self-employed and self-reliant; enable people to be creative and innovative in identifying business opportunities; serve as a catalyst for development and economic growth; reduce the level of poverty; create employment opportunities; reduce rural-urban migration; empower tertiary institution graduates with adequate training in risk management; and to inculcate the spirit of persistence in people which will enable them to persist in any business venture³⁴. It is the understanding of the objectives of

Ani IM, Obodo CA, Ikwueze CC and Festus IT, 'Effect of Gender on Basic Science Students Academic Achievement in Secondary Schools in Enugu Education Zone, Enugu State, Nigeria' (2021) 2(1) UNIZIK Journal of Educational Research and Policy Studies 9 https://doi.org/10.5897/unijerps2021.0004

Bosworth G, 'Report on the Third Conference of the RSA Research Network on Migration, Inter-Connectivity and Regional Development (MICaRD)' (2017) 308(4) Regions Magazine 32 https://doi.org/10.1080/13673882.2017.11958678

entrepreneurship education programmes that introduces a deeper understanding of the different audiences for entrepreneurship education.

3. THE INFLUENCE OF ENTREPRENEURSHIP EDUCATION ON ATTITUDE AND BEHAVIOUR

Self-efficacy, a social-cognitive process, may be used to describe an individual's response, desire, ability, and behavior in terms of entrepreneurship. The degree of confidence a person has in their skills and performance is known as self-efficacy ³⁵. According to ³⁶, perceived self-efficacy is a measurement of a person's aptitudes and abilities that may reveal their views and intentions regarding the activities they wish to take and the results they hope to achieve. Perceived self-efficacy has been accepted as a predictor of intentions and performance that enhance emotional intelligence, according to ³⁷. This study found a relationship between perceived self-efficacy and college students' confidence in their ability to succeed as entrepreneurs despite the COVID-19 epidemic.

Attitude is connected to a person's subjective assessments of the aesthetic value of stimuli. A person's attitude can be either good or bad depending on what activity they are doing and how they feel psychologically. Resources such as an entrepreneurial attitude, competencies, and talents are provided to students who get an entrepreneurship education ³⁸. Previous research has demonstrated a relationship between entrepreneurship education and

Puni A, Anlesinya A and Korsorku PD, 'Entrepreneurial Education, Self-Efficacy and Intentions in Sub-Saharan Africa' (2018) 9(4) African Journal of Economic and Management Studies 492 https://doi.org/10.1108/ajems-09-2017-0211

³⁶ Sun H, Pofoura AK, Adjei Mensah I, Li L and Mohsin M, 'The Role of Environmental Entrepreneurship for Sustainable Development: Evidence from 35 Countries in Sub-Saharan Africa' (2020) 741 Science of The Total Environment 140132 https://doi.org/10.1016/j.scitotenv.2020.140132

Dube K and Nhamo G, 'Sustainable Development Goals Localisation in the Tourism Sector: Lessons from Grootbos Private Nature Reserve, South Africa' (2020) 86(5) GeoJournal 2191 https://doi.org/10.1007/s10708-020-10182-8

Gordova MF and Celone A, 'SDGs and Innovation in the Business Context Literature Review' (2019) 11(24) Sustainability 7043 https://doi.org/10.3390/ su11247043

people's perspectives on entrepreneurship ³⁹. As a result, attitude plays a crucial role in boosting entrepreneurial intention. Entrepreneurial attitudes and ambitions are impacted by entrepreneurship education as an exogenous variable. Therefore, while developing policies and programs for entrepreneurship education, it is essential to have a complete understanding of the elements that influence students' goals ⁴⁰. Through instruction in entrepreneurship, students are exposed to the entrepreneurial world. They perform and engage in business endeavors at their institute. Students may improve their knowledge, attitude, passion, honesty, and resolve while achieving their business goals by learning and using entrepreneurial skills⁴¹.

In this context, having an entrepreneurial mindset means viewing entrepreneurship education as a vital instrument for helping students develop their entrepreneurial abilities. Additionally, behavioral attitudes may be used to gauge entrepreneurial mindsets (Franco et al., 2018). A behavioral attitude is an ability to react to and value particular environmental elements. The student prefers starting his own business versus working for someone else, therefore. It is believed to be the deliberate act of starting a business. More thorough research on the connections between entrepreneurial education and attitude is urgently needed, according to Littlewood & Holt (2018)⁴². According to the reasoning, the following theory has been put forth: PPAEE (Perceived Positive Attitudes Toward Entrepreneurship Education) is a measure of perceived attitudes that are favorable toward entrepreneurship education during COVID-19. Figure 2 illustrates the pattern of the influence of entrepreneurship education on attitude and behavior.

wila NK and Wemba MC, 'Eliciting a Profile of Handicraft Entrepreneurs in Maboneng' (2018) 14(2) World Journal of Entrepreneurship, Management and Sustainable Development 114 https://doi.org/10.1108/wjemsd-03-2017-0011

Chirambo D, 'Can Social Innovation Address Africa's Twin Development Challenges of Climate Change Vulnerability and Forced Migrations?' (2020) 7(1) Journal of Entrepreneurship and Innovation in Emerging Economies 60 https://doi.org/10.1177/2393957520967564

⁴¹ N K Mwila and M I S Turay, 'Augmenting Talent Management for Sustainable Development in Africa' (2018) 14(1) World Journal of Entrepreneurship, Management and Sustainable Development 41.

⁴² D Littlewood and D Holt, 'Social Entrepreneurship in South Africa: Exploring the Influence of Environment' (2018) 57(3) Business & Society 525.

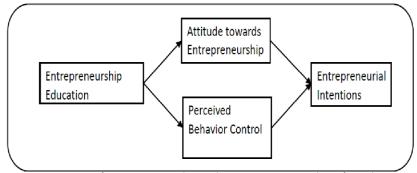


Figure 2: Impact of Entrepreneurship Education on Attitudes of Students towards Entrepreneurship Source: Yaqub, Mufti, Ali, & Khaleeq (2015)

3.1 Global trends in entrepreneurship and the effects of COVID-19 in relation to the SGDs

The tremendous worldwide economic collapse triggered by the COVID-19 pandemic has no contemporary equivalent. There will be 70 million people (about twice the population of California), or twice as many people as California, living in terrible poverty. Micro, small, and medium-sized firms, 80–90% of which are in low-income countries like Africa, generate more than two-thirds of all employment⁴³. Due to the tremendous losses affecting every country and economic sector, many unemployed people are seeking and will continue to seek entrepreneurial chances. Entrepreneurship and micro and medium-sized firms can utilize their incentives to tackle global concerns, particularly in lagging industries and social rehabilitation. Entrepreneurship and the growth of micro, small, and medium-sized firms are more important than ever for social and economic advancement⁴⁴. The Member States' key priorities throughout the recovery that follows COVID-19 and beyond will be these policies.

Jariwala V, 'Marching towards Millennium Development Goals (MDGs) to Sustainable Development Goals (SDGs) in Indian Context' (2017) SSRN Electronic Journal https://doi.org/10.2139/ssrn.3069427

⁴⁴ Chirambo D, 'Can Social Innovation Address Africa's Twin Development Challenges of Climate Change Vulnerability and Forced Migrations?' (2020) 7(1) Journal of Entrepreneurship and Innovation in Emerging Economies 60 https://doi.org/10.1177/2393957520967564

Globally, entrepreneurship has persisted as a dependable source of income and employment. In the years 2018 and 2019, around 15% of the adult population started their own business (Littlewood & Holt, 2018)⁴⁵. In 36 of the 52 nations surveyed since 2015, the percentage of entrepreneurs has increased. In 2019, closing an entrepreneurial firm was less frequent than starting one. The COVID-19 epidemic has caused a 40% drop in business applications in several nations, impeding the expansion of the start-up industry⁴⁶. Numerous variables affect how vulnerable micro, small, and medium-sized firms are. First, 232 million entities in the wholesale and retail trade-many of them run businesses that offer ancillary services-have suffered significantly because of containment. The shadow economy is also home to many micro, small, and medium-sized businesses that lack access to support services (Verma & Gustafsson, 2020)⁴⁷. Due to their increased caregiving responsibilities during the closure, female company owners have suffered particularly. Second, compared to large companies, small, medium, and micro enterprises are less equipped to withstand sudden economic shocks.

For instance, a study conducted by the Economic Commission for Africa found that small, medium, and micro businesses in Africa struggle to withstand the crisis and cite a lack of cash flow as a major obstacle (Sun et al., 2020)⁴⁸. Thirdly, micro, small, and medium-sized businesses might not have access to a variety of markets, businesses, or outside finance during a crisis. Governments first sought short-term solutions when the epidemic was proclaimed, such as tax breaks, loan guarantees, direct grants and subsidies to

Littlewood D and Holt D, 'How Social Enterprises Can Contribute to the Sustainable Development Goals (SDGs) – A Conceptual Framework' in Entre preneurship and the Sustainable Development Goals (2018) 33 https://doi.org/10. 1108/s2040-724620180000008007

Tiutiunyk I, Humenna Y and Flaumer A, 'COVID-19 Impact on Business Sector Activity in the EU Countries: Digital Issues' (2021) 2(1) Health Economics and Management Review 54 https://doi.org/10.21272/hem.2021.1-06

Verma S and Gustafsson A, 'Investigating the Emerging COVID-19 Research Trends in the Field of Business and Management: A Bibliometric Analysis Approach' (2020) 118 Journal of Business Research 253 https://doi.org/10.10 16/j.jbusres.2020.06.057

⁴⁸ Sun H, Pofoura AK, Adjei Mensah I, Li L and Mohsin M, 'The Role of Environmental Entrepreneurship for Sustainable Development: Evidence from 35 Countries in Sub-Saharan Africa' (2020) 741 Science of The Total Environment 140132 https://doi.org/10.1016/j.scitotenv.2020.140132

micro, small and medium-sized enterprises⁴⁹. To assist these businesses in embracing digital technology and broadening their market reach, governments are progressively implementing structural restrictions as part of a longer-term plan. But multiple, interconnected instances of bias based on traits like race and gender are usually left out of responses.

3.2 Improving entrepreneurial education and skill development through SDG

The COVID-19 epidemic has caused significant disruptions in technical and vocational instruction and training. In a study conducted by the International Labour Organization, Cultural organization (Unesco), 98% of respondents stated that technical and vocational training centers had closed⁵⁰. Both soft and hard entrepreneurial skills are excellent indicators of business success, especially in developing nations. Both formal and informal education systems require effective entrepreneurship education policies and programs to help potential entrepreneurs develop their skills and competences over the course of their lives⁵¹. This was essential during the 4th industrial revolution, when creative businesspeople were instrumental in the creation and adoption of innovative long-term sustainability technology.

Since 2018, Member States have created the necessary curricula and educated their teachers in innovative pedagogies to maintain entrepreneurship in the forefront of their educational systems, particularly at the secondary level⁵². Egypt and Madagascar have developed entrepreneurial curriculum and technical education at the secondary level for the years 2017–2020 with help from the UNIDO Entrepreneurial Curriculum Program, which has been incorporated in 11 countries and impacted more than 2 million students (the population of Nebraska).

Tiutiunyk I, Humenna Y and Flaumer A, 'COVID-19 Impact on Business Sector Activity in the EU Countries: Digital Issues' (2021) 2(1) Health Economics and Management Review 54 https://doi.org/10.21272/hem.2021.1-06

Donthu N and Gustafsson A, 'Effects of COVID-19 on Business and Research' (2020) 117 Journal of Business Research 284 https://doi.org/10.1016/j.jbusres .2020.06.008

⁵¹ Littlewood and D Holt, 'Social Entrepreneurship in South Africa: Exploring the Influence of Environment' (2018) 57(3) Business & Society 525

⁵² T N T Ismail and others, 'Youth and Their Knowledge on the Sustainable Development Goals (SDGs)' (2022) 7(19) Environment-Behaviour Proceedings Journal 329.

3.3 Research Methodology

The study aims to investigate Entrepreneurial Education and Africa's attainment of SDGs. Past studies have left gaps in exploring more about Entrepreneurial Education and SDGs. Desk research is a type of research that is based on the material published in reports and similar documents that are available in public libraries, websites, data obtained from surveys already carried out, etc⁵³. It is a research method that involves the use of existing data. These are collected and summarized to increase the overall effectiveness of the investigation. Systematic reviews are used to gather and analyze secondary data. A systematic review, in essence, solves the targeted research question. A systematic review can simultaneously incorporate all of the papers that are relevant to the specified issue⁵⁴.

Furthermore, systematic reviews give an unbiased and fair overview of findings, and they are intended to provide a summary of current evidence linked to a study subject. The openness of the process and search approach improves the review's replicability. Systematic reviews investigate clinical trials, public health initiatives, environmental interventions, social interventions, adverse consequences, and qualitative evidence. This research design is appropriate for this study as it presents a background, context for the study and limitations in previously conducted research studies on the same topic. Making it straightforward to discover gaps and allowing the researcher to do more study to fill in the gaps surrounding the phenomenon in African communities. The process of selecting the population to be studied is known as sampling. In this investigation, a nonprobability sampling approach called purposeful sampling will be applied. Purposive sampling is a sampling approach used by qualitative researchers to identify individuals who can give in-depth and thorough information on the topic under inquiry.

It is also known as purposive and selected sampling. The inclusion and exclusion criteria will be developed. This study make use of (n=20) articles to allow the researcher to find necessary and relevant information about the research topic. Data collection is the course of gathering data on variables of

⁵³ C S Diepolder, H Weitzel and J Huwer, 'Competence Frameworks of Sustainable Entrepreneurship: A Systematic Review' (2021) 13(24) Sustainability 13734.

⁵⁴ M Wright and others, 'The Role of Human Capital in Technological Entrepreneurship' (2007) 31(6) Entrepreneurship Theory and Practice 791.

N Burns and S K Grove, Study Guide for Understanding Nursing Research-E-Book: Building an Evidence-Based Practice (Elsevier Health Sciences, 2013).

interest to answer specified research questions⁵⁶. This study project was based on a systematic review, and it used existing research or secondary sources as a procedure for collecting and reporting information. As a result, research data was accumulated from books, research reports, journals, and articles. Information on this topic was accessed through sites such as JSTOR, Google Scholar, and EBSCOhost. To capture the literature related to entrepreneurial education and SDGs, African states, the sustainable development goals, educational technologies, entrepreneurship education and training, and entrepreneurship. This search strategy was objected to find literature that relates to understandings and.

3.4 Findings and Discussion

The role of entrepreneurs in attaining Sustainable Development Goals (SDGs) is paramount. Entrepreneurs with strong awareness and commitment to sustainable development help to attain almost all SDGs, as they create businesses that will help employment, eliminate poverty, provide decent work and economic growth, help to reduce hunger, assist in attaining good health and wellbeing, help to achieve affordable and clean energy, and enhance their industries⁵⁷. Entrepreneurship education has the potential to develop students' competencies, knowledge and skills to confidently act on opportunities, address issues and solve problems that have arisen in their communities⁵⁸. However, this literature review found barriers to developing students' entrepreneurship capabilities and intent and supporting teachers in implementing effective programmes. There is no knowing how long or how deep the impact of the current economic depression caused by the COVID-19 pandemic will penetrate our globe and standard of living⁵⁹.

Entrepreneurship education in public schooling and universities requires urgent attention and focus to support and enable young people to understand how to adapt to a changing environment, to lead and understand the

N Burns and S K Grove, Study Guide for Understanding Nursing Research-E-Book: Building an Evidence-Based Practice (Elsevier Health Sciences, 2013).

K A Ani and others, 'Goat Manure Waste and Palm Oil Mill Effluent, Viable Crude Oil Degradation Substrates: A Thermodynamic and Composting Investiga tion Studies' (2024) 1(4) Waste Management Bulletin 125.

K A Ani and others, 'Goat Manure Waste and Palm Oil Mill Effluent, Viable Crude Oil Degradation Substrates: A Thermodynamic and Composting Investigation Studies' (2024) 1(4) Waste Management Bulletin 125.

M Rodrigues and others, 'Reviewing COVID-19 Literature on Business Mana gement: What It Portends for Future Research?' (2021) 13(11) Sustainability 5995.

emerging possibilities⁶⁰. This literature review found benefits for students who experience entrepreneurship education, including, the development of self-efficacy, motivation and engagement, and positive attitudes for identifying and acting on opportunities with knowledge, skills and creativity. Future success in the aftermath of a pandemic requires students to be adaptable, resilient (OECD, 2020), opportunistic, innovative and entrepreneurial, which are all capabilities that can be developed through effective entrepreneurship education⁶¹.

The current literature reveals clear evidence that for entrepreneurship education to be effective students need cheerful 'hands-on' experiences to be fostered throughout schooling and into university so that they can build entrepreneurial intent and confidence. Entrepreneurship education helps to foster the intent of students to be entrepreneurs and can take time to form ⁶². However, this literature review found that university graduates have been emerging with high rates of intent to be employees and not business developers or owners. The OECD (2019) 'Employment Outlook 2019' report repeatedly states that young people are more at risk of being underpaid and underemployed than other age groups, especially if they lack education ⁶³.

While Morgan (2020) argues that students need knowledge plus socialism and not entrepreneurship for future success,⁶⁴ entrepreneurship can be developed to serve others, develop skills and competencies and enhance student engagement. The multitude of issues that have arisen for families in this

K Rieckmann and others, 'A Critical Review Speculating on the Protective Efficacies of Autogenous Streptococcus suis Bacterins as Used in Europe' (2020) 6 Porcine Health Management 1.

M Lackéus, 'Comparing the Impact of Three Different Experiential Approaches to Entrepreneurship in Education' (2020) 26(5) International Journal of Entre preneurial Behavior & Research 937.

D Wach, U Stephan, and M Gorgievski, 'More than Money: Developing an Inte grative Multi-Factorial Measure of Entrepreneurial Success' (2016) 34(8) Interna tional Small Business Journal 1098.

⁶³ H Ashari and others, 'Entrepreneurship and Sustainable Development Goals: A Multigroup Analysis of the Moderating Effects of Entrepreneurship Education on Entrepreneurial Intention' (2021) 14(1) Sustainability 431.

⁶⁴ D J Hansen and D Wyman, 'Beyond Making a Profit: Using the UN SDGs in Entrepreneurship Programs to Help Nurture Sustainable Entrepreneurs' (2021) 2(2) Journal of the International Council for Small Business

current global crisis requires teachers to be receptive to learners ⁶⁵ who when placed at the centre of learning can connect to being entrepreneurial for their communities ⁶⁶ and for employment in a post-Covid world. This study found that teachers need opportunities to build confidence, knowledge and capacity in order to develop effective entrepreneurship education learning experiences that are relevant to today's students and prepare them for future life challenges.

Teachers may not have experienced any form of entrepreneurship activity themselves and therefore lack the confidence to facilitate this learning as they may have stronger content and pedagogical knowledge in traditional curriculum areas. Entrepreneurship education can be effectively implemented with experiential approaches to learning, such as value creation ⁶⁷ and support from external trainers to develop programmes ⁶⁸. Further studies are needed to understand the attitudes and values of teachers who are effectively supporting students to engage in entrepreneurship education. Developing research knowledge and expertise of the specific resources and training that is required to encourage teachers who have not yet gained experience would provide value for policymakers and school leaders to encourage this cross-curricular approach to learning.

A deeper understanding and models of initiatives that encourage young people to develop confidence in entrepreneurial endeavours in a rapidly changing and uncertain economic environment is urgently needed and an area that would be prudent for education leaders to focus. Further study into current and potential influences that foster entrepreneurship intention in the young people of today, such as online platforms, may help to connect their interests to the classroom.

⁶⁵ H Golhasany and B Harvey, 'Academic Freedom, the Impact Agenda, and Pressures to Publish: Understanding the Driving Forces in Higher Education' (2022) 2(8) SN Social Sciences 163.

Mika and others, 'Effect of Exercise on Fatty Acid Metabolism and Adipokine Secretion in Adipose Tissue' (2019) 10 Frontiers in Physiology 26

M Lackéus, 'Comparing the Impact of Three Different Experiential Approaches to Entrepreneurship in Education' (2020) 26(5) International Journal of Entrepreneurial Behavior & Research 937.

⁶⁸ C H Chou and others, 'miRTarBase Update 2018: A Resource for Experimentally Validated microRNA-Target Interactions' (2018) 46(D1) Nucleic Acids Research D296-D302.

4. ADVANCING ENTREPRENEURIAL EDUCATION: RECOMMENDATIONS

As the global economy is going through a turbulent and formative period, the role of entrepreneurship in inclusive and sustainable development, as enshrined in the 2030 Agenda, has become even stronger. Harnessing the potential of entrepreneurs and micro, small and medium-sized enterprises in recovery from the pandemic, entrepreneurship strategies must place special emphasis on structural policies to strengthen their resilience and competitiveness⁶⁹. Such policies should prioritize vulnerable groups and incentivize environmentally and socially sustainable models, including tailored support in skills development, digital and financial literacy, digitalization and innovation in gaining access to alternative markets and novel financing schemes, while ensuring an optimal regulatory environment for entrepreneurs to start and scale up their businesses.

To educate and train future entrepreneurs in the country, the government should establish good study centres with well-qualified employees. The government should adequately motivate and encourage trainers by providing good working conditions. Youths should be exposed to entrepreneurial activity at a young age so that they can grow with them. Entrepreneurial cultures/attributes that are accepted in society should be taught to aspiring entrepreneurs. The government should include a practical/field training scheme in the existing tertiary institution's mandated entrepreneurship curriculum. Entrepreneurship should be made a compulsory topic in all secondary schools across the country. Entrepreneurship lectures, teachers/trainers should be retrained and encouraged in the field of research regularly to keep their skills up to speed in today's dynamic and globalized economy. Roads, power, potable water, and other necessary infrastructure should be supplied in both urban and rural areas to improve living standards, reduce rural-urban migration, and maximize the value and utilization of

⁶⁹ H Golhasany and B Harvey, 'Academic Freedom, the Impact Agenda, and Pressures to Publish: Understanding the Driving Forces in Higher Education' (2022) 2(8) SN Social Sciences 163.

resources present in some localities⁷⁰. The government should prove that it is serious about putting the plan into action.

It is recommended that universities, in their quest to become entrepreneurial, introduce the following initiatives: curriculum changes to include Entrepreneur education in all qualifications; expose students to on-the-job training; establish an incubation centre at the university to assist with the commercialisation of business ideas and products; establish forums between the university⁷¹, industry and the government; inform cross-pollination of knowledge and efforts; and uniformity among universities should be established for the recognition of prior learning. Similarly, universities should recognise and credit industry experience in their formal qualifications. All of the above create a platform for lifelong learning. An entrepreneurial university is one that does not only place focus on generating a third-stream income from commercialisation, but rather equips students to start and grow sustainable small businesses.

5. CONCLUSION AND RECOMMENDATIONS

Entrepreneurship may be essential for long-term socioeconomic empowerment in the face of global instability, social inequality, and (young) unemployment. Without education that uses the right techniques, resources, and goals and equally targets all societal groups, this is challenging to accomplish. In order to better grasp entrepreneurship education and training in the context of sustainable development, throw light on related difficulties, and appreciate technology's role as a potential mitigation, this study aims to enhance our understanding of entrepreneurship education and training. The study includes a number of ramifications and contributions. Theoretically, it is one of the earliest assessments of entrepreneurship education in the context of sustainable development and offers a special framework to examine the connection between entrepreneurship education and training and the achievement of particular SDGs. It also fills in research gaps on fragile-

M Ortiz-de-Urbina-Criado, E M Mora-Valentín, and J J Nájera-Sánchez, 'Sustaina bility and Entrepreneurship: Emerging Opportunities for Business and Management Education' (2022) 15(5) Journal of Entrepreneurship in Emerging Economies 1071.

D J Hansen and D Wyman, 'Beyond Making a Profit: Using the UN SDGs in Entrepreneurship Programs to Help Nurture Sustainable Entrepreneurs' (2021) 2(2) Journal of the International Council for Small Business 125

country entrepreneurship, especially in the entrepreneurship education and training context, and offers a distinctive understanding of entrepreneurship education and training difficulties in a time of fragility. The study includes a number of ramifications and contributions.

Theoretically, it is one of the earliest assessments of entrepreneurship education in the context of sustainable development and offers a special framework to examine the connection between entrepreneurship education and training the achievement of particular SDGs and the effects of COVID-19. It also fills in research gaps on fragile-country entrepreneurship, especially in the entrepreneurship education and training context, and offers a distinctive understanding of entrepreneurship education and training difficulties in a time of fragility.

To accomplish the SDGs by 2030, entrepreneurship education must be seen as a crucial tool for addressing hunger, poverty, and environmental problems. By providing entrepreneurship training from elementary school to tertiary level, there is a chance to build the business skills and mentality necessary to produce many jobless young entrepreneurs or entrepreneurial service providers. This may be achieved by constructing academic entrepreneurial programs that are both research-based and oriented, exposing students to real-world circumstances, and establishing entrepreneurial initiatives at the local level.