

# Fostering Resilience: The Symbiotic Relationship Between Entrepreneurship and Sustainability

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**Abstract:-** This study explores the intersection of entrepreneurship and sustainability, focusing on how businesses can integrate environmental, social, and cultural considerations into their operations to drive sustainable development. By examining the role of sustainable entrepreneurship, the research highlights the transformative potential of integrating the triple bottom-line framework, which encompasses economic prosperity, environmental stewardship, and social equity. The study utilises qualitative methods, including case studies and theoretical analysis, to investigate how entrepreneurial ventures can achieve competitive advantages through sustainable practices. Key findings reveal that businesses with high entrepreneurial orientation marked by innovation, risk-taking, and proactiveness are more likely to implement sustainable strategies contributing to long-term economic growth and societal well-being. The research underscores the importance of a holistic approach that balances economic, environmental, social, and cultural dimensions, emphasising the need for businesses to align their strategies with sustainable development goals to ensure resilience and relevance in a rapidly changing global landscape.

**Keywords:-** Sustainable Entrepreneurship, Triple Bottom Line (TBL), Economic Development, Environmental Stewardship, Social Equity, Cultural Considerations.

## I. INTRODUCTION

Entrepreneurship is a dynamic and multifaceted process that involves the identification, evaluation, and exploitation of opportunities to create and manage new ventures. It is characterized by innovation, risk-taking, and proactive behaviour aimed at developing novel products, services, or processes that meet market needs and create value (Bygrave & Hofer, 1992). At its core, entrepreneurship is about transforming ideas into tangible business entities, driving economic growth, and fostering social progress.

The term "entrepreneur" originates from the French word "entreprendre," meaning "to undertake." This etymology reflects the essence of entrepreneurship, which involves undertaking new initiatives and navigating the uncertainties and challenges inherent in starting and running a business (Barzi, 2020). Entrepreneurs are individuals who seek out opportunities beyond their current resources and capabilities, often venturing into uncharted territories with limited financial and human capital. Despite the central role entrepreneurship plays in economic development and

innovation, its definition varies across academic disciplines and policy frameworks. Howard Stevenson of Harvard Business School defines entrepreneurship as the "pursuit of opportunity beyond resources controlled," highlighting the resource-constrained environment in which entrepreneurs often operate. This definition underscores the importance of creativity, resourcefulness, and resilience in entrepreneurial endeavours.

Entrepreneurship isn't always constrained to the introduction of recent businesses. It also encompasses the rejuvenation of existing enterprises through innovative practices and the establishment of social ventures aimed at addressing societal issues. Whether driven by profit motives or social goals, entrepreneurship is a key driver of economic dynamism, generating employment, fostering competition, and spurring technological advancements (Albornoz & Shuck, 2008). In today's rapidly changing global economy, the significance of entrepreneurship is more pronounced than ever. Technological advancements, globalization, and shifting consumer preferences present both opportunities and challenges, making entrepreneurial agility and innovation crucial for sustaining competitive advantage (Amoo et al., 2024). Entrepreneurs play a vital role in identifying and capitalizing on these trends, leading to the continuous evolution of industries and markets.

In summary, entrepreneurship is a critical element of economic and social development, characterized by innovation, risk-taking, and the pursuit of opportunities. It involves the creation and growth of new ventures, revitalization of existing businesses, and development of solutions to social challenges, contributing to a vibrant and resilient economy.

Sustainability is a concept that has gained increasing importance in recent decades as societies around the world grapple with environmental, social, and economic challenges. At its core, sustainability refers back to the cap potential to satisfy the wishes of the existing without compromising the cap potential of destiny generations to satisfy their very own wishes (Albornoz & Shuck, 2008). This concept encompasses a wide range of interconnected issues, including environmental stewardship, social equity, and economic prosperity.

Environmental sustainability focuses on preserving natural resources and ecosystems, minimizing pollution and waste, and promoting renewable energy sources. It aims to ensure that human activities do not deplete or degrade natural resources faster than they can be replenished or restored, thereby maintaining ecological balance and biodiversity. Social sustainability addresses equity, justice, and quality of life for all individuals and communities (Albornoz & Shuck, 2008). It emphasizes fair distribution of resources, access to basic services such as healthcare and education, and protection of human rights. Socially sustainable practices aim to create inclusive societies where everyone can thrive and participate fully in economic and social activities. Economic sustainability involves fostering economic growth that is inclusive, environmentally responsible, and financially viable over the long term (Veciana, 2007). It encourages businesses and industries to operate in ways that generate prosperity without compromising the well-being of current and future generations. This includes adopting sustainable business practices, investing in clean technologies, and promoting responsible consumption and production patterns.

Together, environmental, social, and economic sustainability form the pillars of sustainable development, a framework that seeks to balance human needs with the health of the planet and the well-being of all people. Achieving sustainability requires cooperation and collaboration across sectors and disciplines, innovative thinking, and a commitment to long-term stewardship of resources. It is a holistic approach that recognizes the interdependence of ecological health, social equity, and economic prosperity in creating a resilient and thriving world for present and future generations.

## II. LITERATURE REVIEW AND METHODOLOGY

The literature on sustainable entrepreneurship has evolved significantly over the years, highlighting the role of entrepreneurship in addressing environmental and social challenges. Initially focused on the economic aspects, the literature has expanded to include the triple bottom line (TBL) framework, which emphasizes economic prosperity, environmental quality, and social justice. Researchers have advocated for this holistic approach, and more recent studies suggest adding a cultural dimension to this framework (Beaurain et al., 2023). The cultural context is considered essential for maintaining the identity and diversity of communities, thus enhancing the comprehensive view of sustainable entrepreneurship.

Key scholars such as Shepherd and Patzelt have expanded the definition of sustainable entrepreneurship to include the preservation of nature, life support, and community, emphasizing the need for economic and non-economic benefits (Shepherd & Patzelt, 2011). This broader perspective is necessary for fostering businesses that are not only economically viable but also culturally inclusive and environmentally responsible.

### A. Methodology

The study employs a qualitative research methodology, focusing on case studies and theoretical analysis to explore the dynamics of sustainable entrepreneurship. This approach allows for a deeper understanding of how sustainable practices are integrated into business strategies and the impact these practices have on economic, environmental, and social outcomes. The research involves a comprehensive review of existing literature, along with interviews and surveys conducted with entrepreneurs who have successfully implemented sustainable practices. Data analysis is conducted using thematic analysis to identify key patterns and insights related to sustainable entrepreneurship.

## III. LET'S DEFINE ENTREPRENEURSHIP AND SUSTAINABILITY

Entrepreneurs throughout modern economic history...have been disproportionately responsible for truly radical innovations – the aeroplane, the railroad, the automobile, electric service, the telegraph and telephone, the computer, air conditioning, and so on – that not only fundamentally transformed consumers' lives, but also became platforms for many other industries that, in combination, have fundamentally changed entire economies.

Sustainability is the responsibility of every individual every day. It is about changing our behaviour and mindset to reduce power and water consumption, thereby helping to control emissions and pollution levels.

### A. Entrepreneurship

Entrepreneurship is a pivotal national asset, driven by entrepreneurs who propel economic growth, innovation, and societal progress. This dynamic process generates value, enhances wealth, and fosters improved community well-being. The significance of entrepreneurship spans various dimensions, from catalyzing social transformation to spearheading groundbreaking innovations (Kazim et al., 2024). Remarkable entrepreneurs possess the capacity to revolutionize lifestyles and economies, both locally and nationally. Successful ventures not only elevate living standards but also stimulate economic expansion by generating employment opportunities. Undoubtedly, the impact of entrepreneurship cannot be overstated, as it plays a fundamental role in shaping prosperous and resilient societies.

The United States faces a challenge with its economic growth trajectory. From the 1960s to the 1990s, the economy expanded at an average annual rate of 3.5 per cent in inflation-adjusted terms, with employment growing at 2.3 per cent annually (Uwaoma et al., 2023). However, these rates have significantly slowed since the turn of the millennium, averaging just 1.9 per cent and 0.7 per cent per year, respectively, from 2000 to 2016. Furthermore, labour productivity growth, a critical indicator of economic efficiency and innovation, has also decelerated. Since 2010, it has grown at an average annual rate of 0.9 per cent, down from 2.2 per cent per year over the preceding five decades (1960s-2000s).

This decline suggests a reduced capacity of the economy to increase output relative to inputs, which is vital for sustained economic growth and improved living standards. These trends indicate a breakdown in the economic engine, necessitating urgent reversal to secure continued prosperity and broader inclusion in economic gains. A revitalization of entrepreneurship is crucial to achieving national objectives for several reasons, such as:

➤ *Entrepreneurship Drives Innovation*

In driving productivity growth, innovation stands out as a pivotal force. It involves the development of new technologies, processes, or improvements that enhance economic efficiency without necessarily increasing inputs like capital and labour. By boosting productivity, innovation contributes significantly to societal well-being, raising living standards, and fostering long-term economic prosperity. So, what fuels innovation? Simply put, it's the generation of new and commercially viable ideas and knowledge (Laverty et al., 2020). Joseph Schumpeter, in his influential work on economic growth, coined the term "creative destruction" to describe how innovation disrupts existing economic structures, making way for progress. He underscored the indispensable role of entrepreneurs in this process, "Entrepreneurs function to revolutionize production patterns by leveraging new inventions or unexplored technological opportunities to introduce novel products or produce existing ones in innovative ways. They open new markets, reorganize industries, and pioneer new sources of materials" (Laverty et al., 2020). In essence, economies thrive on continuous improvement and intense competition, which are propelled by innovation, especially transformative or "disruptive" innovations. These advancements heavily rely on entrepreneurial contributions.

A robust body of research supports this view. Entrepreneurs are disproportionately responsible for commercializing groundbreaking products throughout economic history (Guzman et al., 2024). "Entrepreneurs, particularly in the United States and globally, have played a disproportionate role in spearheading truly revolutionary innovations such as aeroplanes, railroads, automobiles, electric utilities, telegraphs, telephones, computers, air conditioning, and more. These innovations not only transformed consumer lifestyles but also served as foundational platforms for numerous other industries, collectively reshaping entire economies". Entrepreneurship is pivotal in driving transformative innovation, which in turn fuels productivity growth, enhances economic dynamism, and shapes the trajectory of societies and economies worldwide.

➤ *Entrepreneurship Increases Productivity*

Throughout much of economic history, the prevailing belief held that economic growth stemmed primarily from advancements in capital and labour. It was commonly assumed that expanding the labour force or increasing capital intensity were the main drivers of economic expansion. However, in 1957, American economist challenged this notion by demonstrating that the majority of economic growth could not be attributed to these factors alone, but

rather to productivity gains driven by innovation (Gomez et al., 2023). As businesses and workers became more efficient in their use of resources, costs decreased, profits and incomes rose, demand expanded, and economic growth and job creation accelerated.

Solow's seminal work on innovation-driven productivity growth has since been affirmed by economists worldwide. Nobel Laureate Paul Krugman succinctly summarized this perspective on sustained economic growth, "While productivity isn't everything, in the long run it's almost everything (Michaelides & Papadakis, 2023). A country's capacity to elevate its standard of living over time hinges almost entirely on its ability to increase output per worker." If productivity growth is pivotal, what then are its drivers? The research literature identifies two main areas. First, there's "efficiency," which pertains to how effectively the factors of production capital, labour, and technology are utilized. An efficient economy achieves higher output levels with the same input levels compared to less efficient economies (Gibb et al., 2024). At the heart of efficiency lies "reallocative efficiency" the ability of resources like capital and labor to flow freely to their most productive uses. In highly reallocatively efficient economies, more productive businesses thrive and grow, while less productive firms decline or exit the market. This process mirrors the dynamics of sports teams, where the best players are on the field while others remain on the bench.

The continuous cycle of business creation, expansion, contraction, and closure is a natural and vital feature of a dynamic economy. It ensures market competitiveness, vibrancy, and constant renewal with fresh ideas and energies. New business formation, often synonymous with "entrepreneurship," plays a crucial role in this reallocative efficiency process. Why? New enterprises enter the market to challenge established firms, offering new or improved products and methods of production and distribution. Their emergence fosters a more competitive business environment, driving innovation and efficiency gains across industries. Despite being less glamorous than breakthrough technological innovations, reallocating efficiency significantly impacts macroeconomic performance. Leading economists have identified a slowdown in reallocating efficiency over the past two decades in the U.S. economy as a primary factor behind the decline in productivity growth during this period. The decrease in the rate of new firm startups, a proxy for entrepreneurship, has emerged as the single most significant contributor to this decline. In essence, entrepreneurship and the efficiency with which resources are allocated within an economy are critical drivers of productivity growth and long-term economic prosperity. They ensure that economies remain adaptive, competitive, and capable of sustaining growth over time.

➤ *Entrepreneurship Creates Jobs*

During the Industrial Age, economies thrived on economies of scale, where larger enterprises dominated, employing a significant portion of the workforce. However, as manufacturing declined and knowledge-intensive sectors gained prominence in the 1970s, smaller, more agile firms

began to play a more substantial role in the American economy.

By the 1980s, the prevailing belief that small businesses were the primary engines of job creation had solidified. This view was politically popular, aligned with American cultural ideals, and supported by empirical evidence showing that small businesses contributed significantly to overall employment and the creation of new jobs. In the mid-1990s, a group of economists started to challenge this conventional wisdom. By the mid-2000s, with improved data accessibility from the U.S. Census Bureau, they upended this notion. Their research revealed that it wasn't necessarily small businesses driving job creation, but rather new and young firms. When accounting for firm age, the apparent "small business effect" on net job creation disappeared. In reality, beyond new and young firms, small businesses as a whole either create or destroy jobs, with the latter effect often outweighing the former (Atkinson et al., 2016).

In essence, the perception that small businesses inherently create jobs is somewhat misleading because young businesses tend to be small in size. Distinguishing between firm size and age has been pivotal for policymaking. Traditional small businesses differ significantly in their characteristics and goals compared to growth-oriented startups in their early stages of development.

#### ➤ *Entrepreneurship Accelerates Economic Growth and Adds to National Income*

Entrepreneurship plays a pivotal role in driving economic growth by acting as a catalyst within market economies. Entrepreneurs introduce new products and services that often trigger a ripple effect, stimulating related industries or sectors that support and complement these innovations, thereby fostering overall economic development. For instance, during the 1990s, a handful of information technology companies pioneered the IT industry in India. This sector rapidly expanded, benefiting numerous associated industries such as call centres, network maintenance firms, and hardware suppliers. Educational institutions responded by training a new generation of IT professionals, who then found employment in these burgeoning sectors, often with improved wages and career prospects.

Moreover, entrepreneurial ventures contribute significantly to national income by generating new wealth. While established businesses may be limited to existing markets, entrepreneurs innovate with new products, services, or technologies that open up untapped markets, thereby creating fresh avenues for economic growth and wealth generation. In addition to creating wealth, entrepreneurship also enhances employment opportunities and increases earnings for individuals, which in turn boosts national income through higher tax revenues and increased government spending capacity. This additional revenue can be allocated by governments to invest in underdeveloped sectors and human capital, further fueling economic advancement and society.

#### ➤ *Entrepreneurs Create Social Change*

Entrepreneurs play a crucial role in driving social change by introducing innovative goods and services that challenge traditional norms and reduce reliance on outdated systems and technologies. This transformative process can lead to improved lifestyles, foster more inclusive thinking, boost morale, and expand economic opportunities. The cumulative effect of these social changes extends beyond local communities to impact national and global scales, underscoring the significance of social entrepreneurship in today's world.

For instance, the proliferation of smartphones and mobile apps has revolutionized both work and leisure activities globally. As the smartphone market continues to grow, entrepreneurial endeavours in technology can bring about profound and enduring changes worldwide. Furthermore, the globalization of technology means that entrepreneurs in developing nations now have access to the same technological tools as their counterparts in developed countries. Coupled with lower living costs, this creates a level playing field where young entrepreneurs from developing countries can effectively compete with established multimillion-dollar products from developed nations. Thus, entrepreneurial innovation is not only levelling economic disparities but also driving substantial social and economic transformations on a global scale.

#### ➤ *Entrepreneurship Promotes Research and Development*

Entrepreneurship not only sparks new business ideas and encourages innovative thinking but also fosters research and development (R&D). Entrepreneurs diligently cultivate their ideas, transforming them into viable business ventures through effective R&D practices. This commitment to innovation leads to the creation of novel products, technologies, and markets that address unmet needs and improve societal well-being. Moreover, entrepreneurs play a pivotal role in tackling challenges that existing products or technologies have yet to solve. By introducing new products and services or enhancing existing ones, entrepreneurship has the potential to significantly enhance people's lives and drive economic progress.

Entrepreneurs also contribute to community development by nurturing ventures among like-minded individuals and investing in local projects and charities. This support extends beyond their enterprises, fostering broader economic and social growth within their communities. Prominent entrepreneurs such as Bill Gates exemplify this commitment by using their wealth to fund initiatives ranging from education to public health, thereby making substantial contributions to societal advancement (Syed et al., 2021a). Their philanthropic efforts underscore the broader impact that entrepreneurship can have on community welfare and global progress.



➤ *Contribution and Current Development of Entrepreneurship*

Many researchers concur that entrepreneurs have significantly contributed to society, the economy, and humanity as a whole. For instance, Baron and Shane describe entrepreneurs as the "engines of economic growth." Joseph Schumpeter, an early pioneer in entrepreneurship studies, referred to entrepreneurs as innovators who bring about "creative destruction" (Ilonen et al., 2018). According to Schumpeter, entrepreneurs introduce new products or processes that replace outdated ones, thereby enhancing the quality of life. Similarly, Fayolle notes that entrepreneurship

has markedly contributed to economic development through job creation, the utilization of business opportunities, and product innovation, which have collectively improved a country's economic conditions (ALOULOU, 2007). For example, Taiwan's emergence as a major global economy has been largely driven by the development of small and medium-sized enterprises (SMEs) and entrepreneurial activity. Consequently, many developing and emerging economies in Asia, including Thailand, China, India, and Malaysia, have actively promoted entrepreneurial activities due to their substantial contributions to economic growth.

Table 1: Sub Field of Entrepreneurship

Field	Description
Regular/Economic	Being economically oriented involves identifying and capitalizing on opportunities to generate profit through the processes of venture initiation, risk-taking, product or process innovation, and resource management.
Green/Environment	Being environmentally or ecologically focused involves conserving natural resources while fostering economic development.
Social	Being socially embedded by complementing social and profit goals.
Sustainable	Being future-oriented involves balancing efforts to contribute to economic prosperity, social justice, social cohesion, and environmental protection.

Source: Author own work

However, it is important to recognize that entrepreneurial activities also have negative impacts on society, particularly in terms of environmental degradation. Recent perspectives highlight that entrepreneurs can contribute to environmental harm due to market failures. Some researchers argue that the environmental degradation caused by entrepreneurial activities, such as pollution, land degradation, and climate change, should and can be addressed by entrepreneurs themselves. Traditionally, entrepreneurship studies focused on the view that entrepreneurs are primarily profit-oriented, opportunistic, and business-minded. With the rapid evolution of entrepreneurship, this perspective is shifting. Recent research indicates that entrepreneurial activities contribute to environmental degradation, a point supported by welfare economics literature, highlights that entrepreneurs are responsible for environmental discontinuities like pollution and climate change (Albornoz & Shuck, 2008). Despite these negative impacts, some researchers argue that entrepreneurs are uniquely positioned to drive business activities toward sustainability. They propose that "entrepreneurship may be a panacea for many social and environmental concerns," suggesting that entrepreneurs are essential for promoting social and ecological sustainability.

This evolving understanding indicates that entrepreneurship encompasses multiple types, each with distinct characteristics. The field can be categorized into several sub-fields: economic entrepreneurship, green/environmental entrepreneurship, social entrepreneurship, and sustainable entrepreneurship (Majid & Koe, 2012). Although these sub-fields overlap, they each have specific primary focuses. For example, while social entrepreneurship aims to create social value and improve public welfare, green or environmental entrepreneurship focuses on addressing ecological issues. Sustainable

entrepreneurship is more complex, requiring balanced contributions to economic, social, and environmental goals. The scope of entrepreneurship is broadening to include a more holistic approach, integrating elements of economic, social, and environmental sustainability (Mendes et al., 2022). This integrated approach is what we now refer to as "sustainable entrepreneurship," reflecting the evolving nature of the field to address a wider array of societal challenges.

➤ *Transition in Entrepreneurship*

Based on the preceding discussions, it is evident that entrepreneurship is undergoing significant transformation. This evolution has introduced numerous new practices that expand beyond traditional associations with economic growth and profit generation. Entrepreneurs are increasingly broadening their scope to encompass fields previously considered unrelated to their domain. A notable shift is observed as entrepreneurship progresses from merely addressing economic needs in its initial phases to incorporating sustainability practices in later stages. This transition contrasts sharply with Friedman's assertion in the New York Times Magazine that "The social responsibility of business is to increase its profits."

Despite this contradiction, there is a gradual acceptance among entrepreneurs of this evolving trend, influenced by the mid-1990s wave of environmental initiatives in Europe and other industrialized nations, as well as growing awareness of sustainable development. Parrish and Foxon argue that sustainable entrepreneurs can serve as catalysts in transitioning from the current economic model to a sustainable one, filling gaps left by businesses and governmental agencies in providing essential social and environmental services (Binder & Belz, 2015).

However, critics contend that some entrepreneurs labelled as sustainable are primarily motivated by business opportunities linked to sustainability rather than an intrinsic commitment to sustainable development. For these entrepreneurs, sustainable practices represent unmet customer needs that offer lucrative business prospects and value (Atta et al., 2021; Khan et al., 2022). While acknowledging the existence of such entrepreneurs, the overall perception within the entrepreneurial community is shifting due to heightened awareness of sustainability since the 1970s. Entrepreneurs, as highlighted increasingly questioning their role in addressing social and ecological challenges. Some are driven by a genuine desire to contribute directly to sustainable development through their entrepreneurial endeavours. Parrish's insights have significantly reshaped the contemporary understanding of sustainable entrepreneurship in the business landscape today.

#### ➤ *Entrepreneurship and Economic Growth*

Entrepreneurship and innovation are key drivers of economic growth and development. However, there has been extensive debate about whether entrepreneurship is necessary for economic growth or if the primary driver is the nature of institutions. Empirical studies, however, consistently highlight a significant and interdependent relationship between entrepreneurship and economic prosperity. Entrepreneurship is increasingly recognized as a critical factor in fostering economic growth and development (Joel & Oguanobi, 2024). Numerous empirical studies have demonstrated a positive correlation between entrepreneurial activities and economic growth. For instance, a study examining 14 developing countries found that entrepreneurial activities significantly contribute to economic growth. Similarly, research on European Union countries revealed a strong correlation between entrepreneurship and economic performance (Mendes et al., 2022). Another study highlighted the critical role of entrepreneurial activities in promoting investment and increasing income levels.

Given the substantial impact of entrepreneurship on economic growth and development, promoting entrepreneurial activities is essential for boosting economic development, especially in developing countries. Modern economics and development theories still largely revolve around the concept of perfect competition, although such a system is rarely observable in practice. Nonetheless, many models, including those focused on multinational firms, international trade, and political economy, underscore the role of entrepreneurship in development. Studies have shown that entrepreneurs drive economic value and growth by creating demand while simultaneously maintaining social welfare. For example, the Global Entrepreneurship Monitor (GEM) 2021/2022 report highlights that countries with higher levels of entrepreneurial activity tend to exhibit higher levels of economic growth. According to the GEM report, economies with a robust entrepreneurial ecosystem not only generate new jobs but also foster innovation and productivity, leading to sustained economic development.

Furthermore, the World Bank's 2020 report on entrepreneurship emphasizes that small and medium-sized enterprises (SMEs), which are predominantly entrepreneurial ventures, contribute significantly to GDP and employment in both developing and developed economies. The report indicates that SMEs account for approximately 90% of businesses and more than 50% of employment worldwide, illustrating the profound impact of entrepreneurship on economic stability and growth (Bayraktar & Algan, 2019). The significance of entrepreneurship in promoting economic growth and development cannot be overstated. Empirical evidence consistently shows that entrepreneurial activities are positively related to economic growth. Therefore, fostering a supportive environment for entrepreneurship is crucial for achieving sustainable economic development, particularly in developing countries.

#### ➤ *Entrepreneurship and Human Development*

Entrepreneurship's impact on human development has long been overlooked in economic research, a gap that represents not only a social injustice but also significant implications for future economic policies. Entrepreneurship creates jobs and increases incomes, particularly for the poor, by introducing new avenues for economic growth in regions where traditional employment has declined. For example, SMEs account for over 70% of global employment, underscoring the crucial role of entrepreneurial ventures in job creation. Entrepreneurs often operate in areas with unmet demand, expanding market size and improving access to goods and services, particularly for disadvantaged communities (Dhahri & Omri, 2018). In less-developed economies, entrepreneurship drives innovation and growth, leading to significant export revenues. A study by UNCTAD found that SMEs in developing countries contribute about 45% of total employment and 33% of GDP. Additionally, entrepreneurship offers opportunities for social mobility, allowing individuals to pursue ambitions outside traditional fields, and fostering improvements in education, healthcare, and other social services. The Global Entrepreneurship Monitor (GEM) reports that high entrepreneurial activity correlates with better human development metrics, such as health outcomes and educational attainment (Hill et al., 2023). Empirical data shows that regions with higher entrepreneurship rates also have lower poverty and greater income equality. Thus, recognizing and nurturing entrepreneurship is essential for designing policies that foster inclusive and sustainable development.

#### ➤ *Entrepreneurship and Environment*

Over the past two decades, a diverse set of theorists has begun to examine the role of entrepreneurship in addressing environmental issues such as climate change, environmental degradation, deforestation, urban growth, and waste accumulation. Entrepreneurship plays a crucial role in environmental protection, with research consistently showing that entrepreneurial activity is positively associated with environmental benefits. Studies have found a general positive connection between firm size and air pollution emissions, revealing that large firms tend to have higher carbon emissions than small firms (Almhamad, 2022). However, some research argues that increased entrepreneurial activities

can lead to higher economic growth, which in turn causes more pollution and waste generation. Economies that rely heavily on traditional activities and economies of scale tend to produce greater environmental externalities. In contrast, more innovative entrepreneurial activities can mitigate these impacts. Entrepreneurs are increasingly seen as key players in addressing environmental challenges. For example, green and social entrepreneurship has been pivotal in developing sustainable technologies and practices that reduce carbon footprints. According to the Global Entrepreneurship Monitor, countries with high levels of entrepreneurial activity also report better environmental practices and innovations (Hill et al., 2023). Entrepreneurs worldwide are acting to solve global problems, driven by the pressing threats of climate change, global warming, pollution, and resource depletion. The rise of green startups and eco-friendly business models highlights the significant potential for entrepreneurship to contribute to sustainable development and environmental conservation.

**B. Sustainability**

In the 1980s, sustainability began to intersect with strategic management as organizations sought to achieve a "sustainable competitive advantage" by utilizing resources that were valuable, rare, inimitable, and non-substitutable. This approach aimed to enhance economic sustainability by leveraging unique assets. The concept of sustainable development gained further prominence with the Brundtland Report, which defined it as a process of change where resource exploitation, investment direction, technological development, and institutional change are harmonized to meet both current and future human needs and aspirations (Hajian & Kashani, 2021).

Sustainability emphasizes the equitable distribution and utilization of resources, but operationalizing fairness across generations remains challenging. In 1995, John Elkington introduced the concept of the Triple Bottom Line (TBL) in

his book *\*Cannibals with Forks: The Triple Bottom Line of 21st Century Business\**(Jeurissen, 2000). Elkington's framework expanded beyond traditional financial metrics such as profit, return on investment (ROI), and shareholder value by incorporating broader environmental and social dimensions (Mark-Herbert et al., 2010). The TBL posits that long-term business success and growth are contingent upon fulfilling conditions related to environmental integrity, economic prosperity, and social equity.

The TBL framework emphasizes three key dimensions, often referred to as the 3Ps: People, Planet, and Profit.

- **People:** This dimension assesses how businesses address social and ethical concerns, such as fair treatment of employees and promotion of social harmony, constituting the social measure.
- **Planet:** This The Triple Bottom Line framework integrates economic, social, and environmental measures, encouraging businesses to address a wide range of stakeholder needs and concerns. TBL serves as a comprehensive performance measurement tool, evaluating the economic, financial, and environmental impacts of business operations. It encompasses all values, issues, and processes necessary for companies to create economic, social, and environmental value while minimizing negative impacts (Mark-Herbert et al., 2010).

Dimension evaluates the environmental impact of business activities, including air and water quality, energy usage, and waste management, forming the environmental measure.

- **Profit:** This dimension acknowledges that long-term sustainability for the planet and people can only be achieved if businesses remain financially viable, representing the economic measure.



Fig 1: The Interconnection of the Elements of the Triple Bottom Line Concept  
Source: Dalibozhko & Krakovetskaya (2022)

The Triple Bottom Line provides a practical framework for balancing the three dimensions of sustainability: economic, human, and environmental systems. According to a recent survey, 60% of Fortune 500 companies plan to expand their strategic goals to reflect TBL principles in the coming years. This framework acts as a catalyst for eco-innovation, eco-efficiency, and social equity, driving businesses towards more sustainable and responsible practices (Mendes et al., 2022).

The evolution of the Triple Bottom Line has fundamentally reshaped how businesses view their role in society, encouraging them to consider not just their financial performance but also their social and environmental impacts. By integrating TBL principles, businesses are better equipped to contribute to sustainable development and ensure the well-being of future generations.

#### ➤ *Benefits of Sustainability*

Why is sustainability important, and can our actions make a difference in preserving resources? Let's explore some key benefits:

- **Energy Conservation:** Implementing sustainable practices in daily business operations and strategic planning helps reduce energy costs and conserve energy. These practices include cutting down on excess energy usage, transitioning to sustainable energy sources, and improving manufacturing and supply chain efficiencies (UddinSyed, 2023). Many governments worldwide offer substantial tax incentives for adopting sustainable options such as electric vehicles (EVs).
- **A Healthier Environment:** The significance of a healthy environment becomes apparent when pollution levels rise to alarming levels. By reducing energy usage and switching to more sustainable energy sources, we can decrease pollution of natural resources such as air, water, and land, making the environment more livable. When more companies and individuals become conscious of their carbon footprints and environmental impact, it leads to a healthier ecosystem for everyone.
- **A Better Future for Everyone:** Life on Earth is interconnected. For instance, global biodiversity levels have dropped to 75% of preindustrial levels, whereas a 90% level is necessary to maintain essential ecological processes crucial for human survival. By adopting sustainable practices, we contribute to building a better future for everyone.

#### ➤ *Importance of Sustainability*

Sustainability holds profound significance across various facets of our lives, contributing positively in several critical areas

- **Preservation of Our Planet:** Sustainable practices play a pivotal role in reducing pollution and conserving natural resources such as water and energy. Businesses and individuals committed to sustainability also help in safeguarding the natural habitats of wildlife, thereby supporting biodiversity conservation efforts globally.

- **Impact on Employment and Economy:** Embracing sustainable business practices promotes the adoption of greener technologies and fosters an environment where smaller enterprises can flourish. Sustainable businesses typically prioritize ethical employment practices, creating opportunities for job growth and economic stability. For instance, sustainable industries like renewable energy have shown significant job creation potential, contributing to a more resilient economy.
- **Promotion of Public Health:** Sustainable practices by businesses contribute to lower energy consumption and reduced emissions, which in turn improves overall environmental quality. Cleaner air and water and reduced exposure to pollutants lead to healthier living conditions for communities. Studies have shown that reducing air pollution alone can have substantial health benefits, lowering incidences of respiratory illnesses and improving quality of life.
- **Enhancing Resilience and Future Readiness:** Sustainability initiatives build resilience against environmental and economic challenges. By reducing dependence on finite resources and integrating renewable energy solutions, businesses and societies become more adaptable to changing environmental and market conditions. This resilience is crucial for ensuring long-term prosperity and well-being.
- **Global Relevance and Responsibility:** As global concerns over climate change and resource depletion intensify, sustainability emerges as a universal responsibility. Businesses that embrace sustainable practices not only fulfil their corporate social responsibilities but also enhance their reputation and appeal to environmentally conscious consumers and investors worldwide.

In essence, sustainability is not merely a trend but a fundamental approach to securing a viable future for generations to come. By integrating sustainable principles into everyday practices, businesses and individuals alike contribute positively to environmental preservation, economic vitality, and public health improvement on a global scale.

#### ➤ *Why Sustainability Important for the Future*

Sustainability holds immense importance for future generations, as articulated by the United Nations Brundtland Commission, which defined it as "meeting the needs of the present without compromising the ability of future generations to meet their own needs." Despite this principle, many of us fail to incorporate sustainable practices into our daily lives. We often consume energy as if natural resources are infinite and contribute to environmental pollution without considering the long-term consequences. However, every action we take affects the availability of resources and the quality of the natural environment that sustains life on Earth.

For instance, global temperatures have already risen by approximately 1.1°C above pre-industrial levels. If temperatures continue to rise to 1.7°C-1.8°C, it is projected that nearly 50% of the world's population will face life-threatening levels of heat and humidity. This stark reality underscores the critical need for sustainability to ensure a



livable environment for future generations. By embracing sustainability, we can mitigate the impact of climate change, conserve vital resources such as water and energy, and preserve biodiversity. These efforts are essential for safeguarding the planet's ecosystems and ensuring that future generations inherit a world that can support their needs and aspirations. Adopting sustainable practices today is not just a choice but a responsibility toward creating a sustainable and resilient future for all.

#### IV. ENTREPRENEURSHIP AND SUSTAINABILITY: EXPLORING THEIR COMMON GROUND

This section explores the potential relationship between entrepreneurship particularly the entrepreneurial orientation of companies and sustainability. Entrepreneurship, characterized by innovativeness, risk-taking, proactiveness, and the pursuit of maximum profit, is often perceived as contrary to the principles of sustainability (Astrini et al., 2020). Sustainability emphasizes efficiency, equality, and intergenerational equity, focusing on economic, social, and environmental dimensions. Both concepts are heavily endorsed by policymakers, and the literature even defines sustainable entrepreneurship as prioritizing the preservation of nature and community support. The goal here is not to merge these concepts but to examine their relationship as distinct entities.

Entrepreneurship is typically viewed as a profit-driven concept that leads to the creation of new companies, rapid growth of existing ones, and competitive advantage (Okpara, 2009). In contrast, sustainability is seen as socially oriented, emphasizing the needs of both current and future generations. Entrepreneurship reflects a mindset and actions driven by personal interest, while sustainability aligns with the broader interests of society and future generations. This dichotomy raises the question: are these concepts truly opposite, or do they share common ground? Is it feasible for a company to simultaneously pursue profit and social objectives? If so, under what conditions?

Both entrepreneurship and sustainability can be analyzed at various levels macro, company, and personal, and understood in diverse contexts. The multi-level and multi-dimensional nature of these concepts presents theoretical and methodological challenges (Dalibozhko & Krakovetskaya, 2018). To address any research question about the simultaneous pursuit of profit and social goals, a clear conceptualization of these ideas is necessary. This section is divided into two parts. The first part explains the concept of entrepreneurship and entrepreneurial orientation to clarify the foundational ideas. The second part presents an overview of sustainability and examines the relationship between entrepreneurial orientation and sustainability. This section concludes with a summary of the findings.

##### A. *Entrepreneurship and the Orientation Toward Entrepreneurship*

Entrepreneurship, widely acknowledged as a key economic factor driving growth, remains outside the mainstream of economics. As a result, a unified and comprehensive theory or even a consistent definition of entrepreneurship is lacking (Iakovleva, 2011). In the context of neoclassical general equilibrium theory, entrepreneurs are seen primarily as rational managers optimizing decisions. It is only by rejecting several assumptions of this theory that the concept of entrepreneurship can be explained, as it is the state of market disequilibrium that spurs the creation of new businesses. Therefore, entrepreneurship is essentially viewed as a state of disequilibrium.

Contemporary research on entrepreneurship stems from three main traditions: the views of F. Knight, J. Schumpeter, and the Austrian school. Knight's approach emphasizes the entrepreneur's ability to bear risk, identifying entrepreneurs as individuals who accept the risk of failure. Schumpeter's perspective highlights the entrepreneur's role in innovation, portraying entrepreneurs as innovators who introduce new business solutions (Śledzik, 2013). The Austrian school views entrepreneurs as outsiders who recognize and exploit market opportunities for profit. These varied interpretations necessitate analyzing entrepreneurship at multiple levels: macro (society or economy), company (organizational culture), and personal (individual traits). Within the study of entrepreneurship, the concept of entrepreneurial orientation (EO) has been extensively explored. EO pertains to the company's predisposition towards entrepreneurial processes, practices, and decision-making, influencing its growth through the identification and exploitation of market opportunities (Gibcus & Ivanova, 2003). Originating from Miller's work in 1983 and further developed by subsequent scholars, EO is a strategic construct in strategic management aimed at achieving company growth. Companies with strong EO are better equipped to innovate, enter new markets, and undergo strategic transformation.

Entrepreneurial orientation is embedded in a company's organizational culture and represents a method of operation. EO comprises five dimensions: autonomy, innovativeness, proactiveness, competitive aggressiveness, and risk-taking, though some studies focus on just three: innovativeness, proactiveness, and risk-taking. These dimensions make EO an operational concept. Innovativeness reflects a company's openness to new ideas, novelty, and experimentation aimed at developing new products, services, or technologies. Risk-taking involves making decisions and taking actions without certainty about the outcomes, indicating a willingness to commit resources despite the potential for failure (Iakovleva, 2011). Proactiveness denotes a forward-looking perspective, seeking to introduce new products or services ahead of competitors and anticipating future demand. Autonomy involves independent actions by individuals to realize business visions and pursue market opportunities, fostering competitive advantage (Davis & Kreiser, 2010). Competitive aggressiveness measures the effort needed to outperform industry rivals, characterized by aggressive strategies to improve market position. Research on entrepreneurial

orientation typically focuses on its impact on company performance, the relationship between EO and sales growth, or the flexibility of new products.

The intensity of each EO dimension can vary within a company, ranging from low to high. For instance, a company's approach to innovativeness can span from imitative to radical innovation. Risk-taking attitudes can range from risk aversion to a propensity for risk. Proactiveness can vary from relying on current trends to a strong future orientation. Autonomy can range from actions dictated by external factors to independent strategic decisions, and competitive aggressiveness can range from acceptance of existing competitors to a strong competitive drive (Rauch et al., 2009). The variability in EO dimensions suggests that a company can exhibit different intensities across these dimensions. For example, a company might display high autonomy, low competitive aggressiveness, and average innovativeness. Consequently, there can be numerous variations in the intensity of EO dimensions. While existing literature often focuses on the relationship between EO and company performance, this chapter explores the potential relationship between EO and sustainable growth. The research questions posed are: Can the growth resulting from entrepreneurial orientation be considered sustainable? Does a pro-growth entrepreneurial orientation inherently support or hinder sustainable development? How do the dimensions of entrepreneurial orientation affect sustainability? These questions are addressed by analyzing the relationships between entrepreneurial orientation and sustainability in the subsequent section.

To enrich the discussion, recent studies have indicated that companies with strong EO can indeed integrate sustainability into their business models. For instance, research suggests that entrepreneurial firms with a strategic focus on sustainability can achieve long-term competitive advantages (Wang et al., 2022). Additionally, a study emphasizes that entrepreneurial orientation, when aligned with sustainable practices, can lead to innovation that not only drives economic performance but also promotes social and environmental well-being.

### *B. Conceptual Approach to Entrepreneurial Orientation and Sustainable Development*

To address the questions posed in the above section, a clear definition of sustainability is necessary. Sustainable development has become an extensive concept, encompassing all facets of human life. This multifaceted and complex notion integrates efficiency, equality, and intergenerational equity, focusing on economic, social, and environmental dimensions. Sustainability is founded on three pillars: a sustainable society, a sustainable environment, and a sustainable economy. The three core principles of sustainable development are environmental integration, social responsibility, and economic prosperity achieved through creating new value.

Economically, sustainable development ensures that the income per capita of future generations will not be lower than that of the current generation. Sociologically, it fosters close social ties within society. Ecologically, it promotes the diversification of the biosphere, ecosystems, and ecological processes. In a business context, sustainable development is seen as achieving sustainable profit through well-planned business practices that are sensitive to social and environmental needs. Large companies are evolving their business models to integrate social and environmental considerations, particularly in Scandinavian countries, thereby operationalizing the concept of sustainable development (Shepherd & Patzelt, 2011). Economic growth, measured by GDP per capita, is distinct from sustainable development, which is assessed through quality-of-life indicators. However, adopting sustainable development in an organization can enhance economic efficiency, for instance, by promoting the balanced use of energy and materials, leading to more efficient resource use and improved economic performance.

A review of existing definitions of sustainable development reveals diverse understandings, with two dominant views: sustainable development is defined as development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs, and as processes that improve living conditions without harming the natural environment (Cohen & Winn, 2007). Sustainable development can be analyzed at different levels, such as the macro level (as a societal characteristic) or the company level (as a business practice). To answer the research questions in this paper, sustainable development is examined at the company level, similar to how entrepreneurial orientation is considered a feature of company strategy. Additionally, the specific dimensions of entrepreneurial orientation are assessed for their positive and negative impacts on sustainable development.

Proactiveness, which involves forward-looking and actively seeking market opportunities, appears to positively influence the enactment of sustainable development, whether from the demand or supply side of the market. On the demand side, maintaining or increasing future consumers' purchasing power and reducing social exclusion are essential for ensuring that future generations' income per capita is not lower than the present generation's. On the supply side, ensuring continuous access to natural resources benefits companies' production factors (Porter & Kramer, 2011). A proactive approach to a company's operations can lower production costs through efficient resource use. Furthermore, proactive companies, adept at identifying and exploiting market opportunities, can leverage the opportunities created by sustainable development. Implementing sustainable development necessitates shifts in thinking and operations, generating new market and social needs supported by government policies, thus potentially driving changes in company strategies and encouraging proactive firms to explore new opportunities.

These relationships can be analyzed through the lens of sustainable developmental opportunities, which sustain natural and communal resources and benefit others' development. Research indicates that entrepreneurs' openness to discovering sustainable development opportunities depends on their understanding of natural and communal environments. Innovativeness, introducing new products, services, and technologies, is crucial for achieving sustainability, as sustainable development requires changes in production and consumption that lead to a more rational use of resources while maintaining intergenerational equity (Croitoru, 2012). Innovativeness in production and consumption is essential for sustainable development, and companies with an innovative attitude are vital for this process. Introducing innovations while using resources efficiently can lower production costs, enhancing profitability. However, for innovativeness to positively impact sustainability, it must align with sustainable development goals. Innovativeness involves introducing market novelties, but their nature must align with sustainability principles.

Risk-taking, which involves undertaking actions with unknown future outcomes, is another dimension of entrepreneurial orientation that can affect sustainable development. While sustainability and risk-taking may seem contradictory, both involve making decisions with uncertain future results (Chick, 2009). Implementing sustainability also involves actions with unknown outcomes that will become apparent in the future, with no guaranteed success. Risk-taking involves predicting the future, and profit results from accurate predictions. Sustainable development also relies on forecasts about future societal and environmental phenomena, which may or may not materialize. These similarities suggest a potential positive relationship between risk-taking and sustainable development, provided they share the same social and ecological goals. However, the time horizon for risk-taking is typically shorter than that for sustainable development.

Autonomy, the independence of individual employees and teams in their professional activities, appears unrelated to sustainability since implementing sustainable development results from long-term company or societal strategies rather than individual decisions. However, if sustainable development becomes part of a company's strategy, employee independence can facilitate its efficient implementation. Competitive aggressiveness, characterized by efforts to outperform industry rivals, can align with a pro-ecological and pro-social attitude, as postulated by sustainable development, as a basis for competitive advantage (Lee, 2007). Examples from Scandinavian companies, which emphasize social equality and environmental respect, support this claim. However, the long-term perspective of sustainable development contrasts with the shorter time frame for creating a competitive advantage. This discrepancy suggests that companies may prioritize immediate circumstances over long-term trends. Only by establishing a lasting competitive advantage can companies effectively support sustainable development. Some authors propose that sustainable development and competitiveness are intertwined, coining

the term "sustainable competitiveness." Research shows that companies are primarily oriented toward sustainable development when it is linked to business profitability rather than social and ecological stability. Therefore, entrepreneurial orientation can positively impact sustainable development if pro-ecological and pro-social initiatives yield measurable business benefits.

Thus, a company aiming to adopt sustainable development principles can benefit from a specific combination of entrepreneurial orientation dimensions: high proactiveness and innovativeness, moderate risk-taking and competitive aggressiveness, and low autonomy. These findings are summarized in Table. High innovativeness and proactiveness can drive radical innovation aligned with future trends in sustainable development. Neutral risk-taking and competitive aggressiveness, combined with low employee autonomy, support a sustainable strategy for the future.

These insights suggest that the most effective entrepreneurial orientation for sustainable development includes high innovativeness and proactiveness, balanced risk-taking and competitive aggressiveness, and low employee autonomy. This approach fosters radical innovation aligned with sustainable economic, social, and environmental trends while maintaining a strategic focus on sustainability.

## V. SUSTAINABLE ENTREPRENEURSHIP AND ITS IMPORTANCE

Social entrepreneurship (SE) is a concept that connects sustainable development with entrepreneurship. It serves as an overarching term encompassing environmental entrepreneurship, green entrepreneurship, ecopreneurship, and social entrepreneurship. However, these terms often overlap and can be ambiguous, making it challenging to clearly distinguish them. Many studies of SE have primarily focused on "environmental entrepreneurship," which, while valid, may lead to confusion (Mark-Herbert et al., 2010). It's important to note that these terms carry distinct meanings and priorities.

Scholars have proposed various definitions to clarify SE. Crals define it as "the ongoing commitment of businesses to act ethically, contribute to economic development, and enhance the quality of life for their workforce, families, local and global communities, and future generations." This definition emphasizes not only the economic domain but also the social domain, focusing on social impact (Moon et al., 2012). Dean and McMullen define SE as "the process of identifying, evaluating, and exploiting economic opportunities that arise from market failures detracting from sustainability, including those of environmental relevance." Their definition adds an environmental focus to the economic dimension, underscoring the importance of addressing environmental challenges through entrepreneurial action. While these definitions highlight either social or environmental aspects, researchers like Tilley and Young argue that sustainability entrepreneurship extends beyond eco- or social entrepreneurship. They contend that these approaches may prioritize specific aspects of sustainable

development without integrating all dimensions equally or holistically (Majid & Koe, 2012). Advocate for a broader view of SE, suggesting that it should encompass not only environmental protection but also social and economic dimensions. Similarly, Cohen and Winn, along with Woodfield, emphasize that SE should transcend mere corporate environmental initiatives.

*A. Abrahamsson Introduces the Term "sustainability entrepreneurship," Which Emphasizes Three Dimensions:*

- Developing innovations to solve sustainability challenges,
- Bringing these solutions to market through creative organization, and
- Enhancing sustainability without compromising life support systems.

This concept broadens the scope of SE beyond traditional definitions, though it does not explicitly define what constitutes "sustainability problems." In summary, defining SE requires moving beyond narrow definitions focused solely on environmental or social domains. Instead, it should encompass a holistic approach that addresses economic, social, and environmental dimensions of sustainability, promoting ethical business practices and long-term societal benefits.

Social entrepreneurship (SE) is increasingly defined by its ability to harness economic opportunities that disrupt market norms, catalyzing sectors towards greater environmental and social sustainability, as articulated by Hockerts and Wüstenhagen. Similarly, Shepherd and Patzelt underscore SE as centred on fostering nature preservation, community support, and sustainable life systems, aiming to introduce novel products, processes, and services that generate broad gains encompassing economic and non-economic benefits for individuals, economies, and societies. These definitions mark a departure from earlier, more singularly focused definitions by incorporating economic, environmental, and social dimensions (Spence & Benboubaker, 2011). They align with calls from Cohen Winn, and Woodfield to transcend narrow conceptions limited to environmental or social aspects. Emphasizing sustained contexts crucial for entrepreneurs, these definitions elucidate the comprehensive scope SE should encompass. Contrasting these views, O'Neill introduces a distinctive perspective, characterizing sustainability entrepreneurship as a venture creation process linking entrepreneurial activities to the emergence of enterprises that contribute to sustainable development within social-ecological systems. Notably, O'Neill underscores the role of cultural characteristics in shaping the values that sustainable enterprises seek to uphold, advocating for cultural preservation alongside environmental responsibility, social equity, and economic viability.

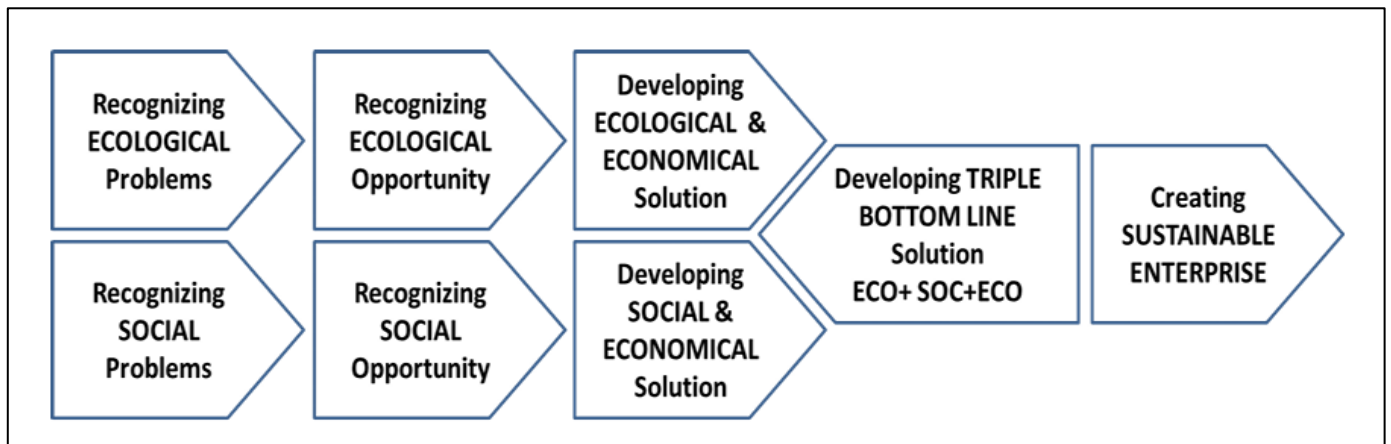


Fig 2: Characteristics of Sustainability Entrepreneurship  
Source: Sharma & Kushwaha (2022)

Drawing from these insights, SE can be defined as a dynamic process where entrepreneurs creatively exploit opportunities for economic gain, societal equity, environmental stewardship, and cultural preservation on equitable terms. Central to this definition is the equal emphasis on sustaining economic, social, environmental, and cultural domains through entrepreneurial commitment (Venkataraman, 1997). Entrepreneurs in this context are catalysts for change, leveraging innovation to transform their businesses, processes, or products in pursuit of sustainability, driven either by opportunity or a dedicated commitment to sustainability principles.

*A. Triple-Bottom-Line (TBL) and Sustainable Entrepreneurship*

The concept of Triple-Bottom-Line (TBL or 3BL) was introduced in 1994 to articulate the broadening of sustainable values within business practices. It elaborated on this concept in his 1997 book "Cannibals with Forks: The Triple Bottom Line of 21st Century Business," identifying three essential dimensions of sustainable conduct: economic prosperity, environmental quality, and social justice (Hamidi & Worthington, 2021). Later, it refined this into the "3P formulation" encompassing "people, planet, and profit". Despite not providing a diagram the framework inspired various researchers to develop graphical representations of TBL.



The TBL concept has become widely adopted by scholars not only for conceptual explanations of sustainable development but also as a practical tool for businesses to demonstrate commitment to society, the environment, and the economy. It is increasingly used for sustainable reporting, allowing organizations to monitor and communicate their impacts across environmental quality, social justice, and economic prosperity. The flexibility of TBL makes it adaptable for use by businesses, non-profits, and government agencies to assess sustainability performance tailored to their specific contexts.

However, Moon, as well as Cho, critique TBL for its deficiency in providing concrete metrics to evaluate firms' sustainability across economic, environmental, and social dimensions (Cho & Moon, 2023). Over the years, TBL has served as a foundational concept for developing models of social entrepreneurship (SE). Researchers like Dixon and Clifford have applied TBL principles in their studies of ecopreneurship, focusing on how entrepreneurs can maintain economic viability while upholding environmental and social values. Similarly, Tilley and Young's value-based model aligns closely with TBL, emphasizing twelve core values that drive sustainable entrepreneurship (Young & Tilley, 2006). Hall emphasizes the importance of placing social, environmental, and economic objectives on equal footing for sustainable entrepreneurs, though achieving balance among these domains remains a persistent challenge. Along with McDonald, have utilized a 3Ps formulation (people, profit, planet) to describe SE, underscoring the interconnectedness of these dimensions in entrepreneurial endeavours.

Triple Bottom Line continues to serve as a vital framework for understanding and promoting sustainable business practices, guiding both theoretical research and practical applications in various organizational settings.

#### *B. A Revised Model of Sustainable Entrepreneurship*

The Triple Bottom Line (TBL) has gained widespread acceptance as a framework for explaining social entrepreneurship (SE) among researchers. However, it is not without its limitations. Cohen and Winn suggest that linking TBL to SE research warrants further exploration. Researchers such as Majid & Koe, (2012) have also identified gaps in TBL, noting that some critical domains are not sufficiently emphasized (Majid & Koe, 2012). For example, Austin calls for future studies to examine the impacts of contextual factors such as country and community influences on social entrepreneurship. Although Austin does not explicitly mention "culture," it is arguable that country and community dynamics are deeply intertwined with cultural forces. Culture distinctly shapes and defines communities, making it essential to investigate its impact on social entrepreneurship and SE.

Shepherd and Patzelt highlight the importance for sustainable entrepreneurs to understand the "constructs" that need to be sustained and developed. They identify "community" alongside "nature" and "life support" as crucial elements. While they underscore the importance of community, they also suggest that sustaining a community

inherently involves preserving its culture, thereby contributing to its uniqueness. Introduction culture as a significant variable, they do not delve deeply into this aspect, indicating that SE research on culture is still emerging.

Nurse points out those developing countries often rely heavily on Western scientific knowledge to address sustainability issues, which can lead to social problems. Traditional or indigenous knowledge, which could offer solutions for sustainable development, is often neglected. Over-reliance on Western concepts can result in the erosion of traditional knowledge and cultural preservation efforts. Nurses advocate for integrating cultural aspects into sustainability models, proposing that culture should not only be a fourth pillar of sustainable development but should also be central to it. This approach suggests that understanding and addressing sustainability through a cultural lens can empower people to tackle these issues in ways that are meaningful to them, as "culture shapes What we suggest through improvement and determines how human beings act inside the world" (Hawkes & Jon, 2001).

However, placing culture at the centre of sustainability raises questions about the balance between cultural and other sustainability domains. This concern mirrors challenges faced in ecopreneurship and social entrepreneurship, where excessive focus on one aspect can undermine a holistic approach to sustainable entrepreneurship. O'Neill's work, influenced by the sustainability model of Navajo FlexCrete, argues for the inclusion of the "cultural domain" alongside economic, social, and environmental domains in explaining SE. This proposal extends TBL by incorporating culture but also highlights some limitations. For instance, the model does not specify the extent to which each domain should be emphasized, and it lacks empirical validation.

The existing SE research either omits the cultural domain or lacks further investigation into culture's influence on the SE process. Therefore, a modified sustainable entrepreneurship model based on TBL is proposed, incorporating economic, social, environmental, and cultural dimensions with an emphasis on "equal footing" or balanced consideration of all four domains (Häßler, 2020). The following sections will further discuss this model:

#### *C. Economic Dimension*

The economic dimension, or "economic viability," pertains to the flow of money and financial stability. Entrepreneurs, including sustainable entrepreneurs, require financial resources to survive and thrive. This necessity sets them apart from charitable organizations. Within the entrepreneurial landscape, there exists a subset of entrepreneurs who prioritize profit or economic gains above all else (Gutterman, 2024). These people are frequently cited as "business entrepreneurs" or "monetary entrepreneurs." They focus primarily on the economic functions of entrepreneurship, such as exploiting opportunities and utilizing resources for profit. Consequently, this group should not be classified as sustainable entrepreneurs since their primary aim is economic gain.

However, the challenge of maintaining economic viability is significant for sustainable entrepreneurs. While profit should not be the sole focus, economic stability is crucial. Researchers emphasize the importance of economic viability for the survival of all businesses, including sustainable ones. Some also highlighted "economic gains" as a necessary component of sustainable entrepreneurship. Similarly, De Freyman argue that sustainable entrepreneurs must create value that fosters economic prosperity alongside social justice and environmental protection (García-Moreno & López-Ruiz, 2023). This perspective suggests that there should not be a trade-off between profit and non-profit aspects such as environmental sustainability or social welfare.

Thus, in the revised model of sustainable entrepreneurship, the economic dimension should be given equal importance alongside social, ecological, and cultural dimensions. This balanced approach ensures that sustainable entrepreneurs can achieve economic viability while also addressing broader sustainability goals. For example, a sustainable business might invest in renewable energy sources to reduce long-term operational costs and environmental impact, thereby achieving both economic and ecological benefits. Another instance could be the development of community-based enterprises that not only generate local employment and economic growth but also preserve cultural heritage and promote social equity. These examples illustrate how integrating economic viability with other sustainability dimensions can lead to a holistic and balanced approach to sustainable entrepreneurship.

#### D. Social Dimension

Milton Friedman famously argued that "the social responsibility of business is to increase its profits," a perspective that significantly influenced business practices in the past. Historically, businesses believed they contributed to social development through job creation, product development, and tax payment. However, contemporary views on the social responsibility of businesses have evolved, largely due to the rise of corporate social responsibility (CSR).

Crawls for instance, have emphasized that "people" are a critical domain in sustainable entrepreneurship, asserting that businesses must address societal issues such as human rights, gender equality, and child labour. Similarly, Spence has highlighted that sustainable entrepreneurship closely aligns with CSR and environmental development, indicating that entrepreneurs should actively contribute to social and environmental well-being.

Moreover, Richomme-Huet and De Freyman have argued that to be recognized as a sustainable entrepreneur, one must foster "social cohesion," which involves meeting the needs of individuals and communities (Richomme-Huet & de freyman, 2014). It is important to clarify that "social entrepreneurship" and "sustainable entrepreneurship" are distinct concepts with different agendas. Social entrepreneurs prioritize social objectives, welfare, and cohesion. As explained, social entrepreneurship refers to entrepreneurial activities with an embedded social purpose, which can occur

within business, non-profit, or governmental sectors. This crossover into non-profit or governmental sectors can sometimes dilute the entrepreneurial essence of these activities.

In contrast, sustainable entrepreneurship should not focus solely on social aspects. According to the proposed model, sustainable entrepreneurs must equally emphasize economic, environmental, and cultural dimensions. For example, a sustainable business might engage in fair trade practices to ensure ethical labour conditions (social dimension), invest in renewable energy to minimize its carbon footprint (environmental dimension), support local cultural events to preserve community traditions (cultural dimension) and maintain profitability to ensure long-term viability (economic dimension). These examples underscore the necessity for sustainable entrepreneurs to balance these four critical domains, ensuring that no single aspect is prioritized at the expense of the others (Abdul Kadir & Ahmad, 2023). This holistic approach is essential for achieving true sustainability in entrepreneurship.

#### E. Ecological Dimension

The environmental dimension is a major focus in many studies on sustainable entrepreneurship (SE). Some researchers argue that the ecosystem forms the foundation of the environmental system, encompassing essential natural resources such as air, water, and energy. These resources are scarce and non-renewable, making their preservation crucial. In recent years, businesses have increasingly prioritized the maintenance of the environmental, ecological, or natural dimension.

Researchers have often used the terms "sustainable," "ecological," "environmental," and "green" interchangeably. However, it is essential to distinguish between "sustainable" and these other terms, as they carry different meanings. A common confusion arises between "sustainable development" and the "entrepreneurial" aspect of SE. Emphasizing sustainable development goals, like improving the quality of life or preserving nature for future generations, can sometimes overshadow the entrepreneurial component of SE.

As Shepherd and Patzelt have noted, nature and the environment are just one of several aspects that need to be sustained within sustainable entrepreneurship. Similarly, Richomme-Huet and De Freyman have included "environmental protection" as a value produced by sustainable entrepreneurs (Richomme-Huet & de freyman, 2014). This indicates that SE is not solely focused on sustainable development or nature preservation; it encompasses a broader range of considerations. According to the proposed model, the term "sustainable" should not be limited to "ecological," "environmental," or "green." For any entrepreneurial enterprise to be genuinely sustainable, it must balance attention across multiple dimensions: economic, social, and cultural, in addition to environmental.

For example, a company that adopts eco-friendly practices, such as using renewable energy sources and reducing waste, is addressing the environmental dimension. However, to be truly sustainable, the company should also ensure fair wages and safe working conditions (social dimension) (Jabeen et al., 2021), maintain profitability for long-term viability (economic dimension), and support local cultural initiatives (cultural dimension).

This balanced approach ensures that the business does not prioritize one aspect at the expense of others, embodying the holistic principles of sustainable entrepreneurship. Thus, true sustainable entrepreneurship requires a comprehensive approach that equally emphasizes environmental, economic, social, and cultural dimensions. This holistic perspective is essential for creating businesses that are not only environmentally responsible but also economically viable, socially equitable, and culturally inclusive.

#### F. Cultural Dimension

Over the years, researchers have argued that sustainable entrepreneurship (SE) should focus on economic viability, environmental preservation, and social development. This perspective has been significantly influenced by the triple-bottom-line (TBL) concept coined by Elkington, which describes sustainability in business through the lenses of "economic prosperity," "environmental quality," and "social justice."

Recently, some researchers have proposed the addition of a fourth domain to the sustainable entrepreneurship framework. For instance, Nurse emphasizes the importance of sustaining traditional or indigenous knowledge to prevent cultural loss and over-reliance on Western culture. Syed et al., (2021b) also emphasized on the importance of knowledge on planning. The nurse suggests that culture should be considered the fourth pillar of sustainable development to achieve harmony among cultural diversity, social equity, environmental responsibility, and economic viability. Similarly, Advocates for extending the sustainable entrepreneurship model to include the cultural context, arguing that culture influences all aspects of the sustainable entrepreneurship process. Additionally contend that sustainability extends beyond the natural environment, asserting that maintaining the cultural identity of a community is crucial to preventing the erosion of personal and communal identities.

In summary, alongside the existing three domains economic, environmental, and social the cultural context should also be integrated into the SE framework. Although Nurse mentions the existence of "cultural entrepreneurs," these individuals are typically from the arts sector or cultural industries, which may not be profit-driven or entrepreneurial. Thus, while the cultural dimension is essential, it should not overshadow the other dimensions. Instead, it should be given equal importance within the sustainable entrepreneurship framework.

For example, incorporating cultural sustainability might involve businesses supporting local traditions, arts, and languages, ensuring these are preserved alongside achieving economic goals, promoting social justice, and protecting the environment. This balanced approach ensures that sustainable entrepreneurship encompasses a holistic view, respecting and integrating economic, environmental, social, and cultural dimensions equally. This comprehensive perspective is crucial for fostering businesses that are not only economically viable but also environmentally responsible, socially equitable, and culturally inclusive.

#### G. The Distinctive Importance

Given the inherent "E" in SE, there are natural roots in entrepreneurship research. However, existing entrepreneurship literature has yet to fully capture or explain, both conceptually and empirically, the logic of creating present value for the economy, society, and the environment while ensuring the well-being of future generations. Traditional definitions of entrepreneurship do consider the impact of entrepreneurial activities, but sustainable entrepreneurship introduces a new logic in opportunity development, aiming to achieve social, environmental, and economic sustainability simultaneously.

Dean and McMullen define sustainable entrepreneurship as "the process of discovering, evaluating, and exploiting economic opportunities present in market failures that detract from sustainability, including those that are environmentally relevant" (McMullen, 2024) Similarly, Hendriks describe it as "the discovery and exploitation of economic opportunities through the generation of market disequilibria that initiate the transformation of a sector towards an environmentally and socially more sustainable state" (Ahlgriem & Hendriks, 2023) More recently, Researchers defined sustainable entrepreneurship as "focused on the preservation of nature, life support, and community in the pursuit of perceived opportunities to bring into existence future products, processes, and services for gain, where the gain includes economic and non-economic benefits to individuals, the economy, and society."

Sustainability-driven enterprises are not solely about social and environmental entrepreneurship, which focuses only on social and environmental objectives, nor are they only about economic entrepreneurship, which aims at an economic profit. This approach combines all components of sustainable development equally and integrally, aiming to achieve the three objectives while committing to securing economic welfare, social well-being, and long-term environmental sustainability for future generations. Shepherd and Patzelt support this approach by emphasizing that sustainable entrepreneurship involves sustaining and developing six elements: three informed by sustainable development literature (nature, life support systems, and communities) and three by entrepreneurship literature (economic gains, non-economic gains to individuals, and non-economic gains to society) (Joel & Oguanobi, 2024).

What is missing in the current definitions is an overarching goal that unifies economic, social, and environmental sustainability under one guiding principle. Therefore, I propose defining sustainable entrepreneurship as pursuing business opportunities to create future products, processes, and services while contributing to the sustainable development of society, the economy, and the environment, thereby enhancing the well-being of future generations. This definition establishes not only the different dimensions along which development is directed but also an overarching concern for the fate of future generations. It integrates two central elements of sustainability: the mutual need for environmental protection and development and the necessity of equity within and between generations.

To argue that SE should be considered a distinct and important field within entrepreneurship research, it is necessary to refute the counterfactual argument that SE is merely a subset of entrepreneurship. If SE activities could be considered entrepreneurial activities based solely on economic merits, then SE would be just a subset of entrepreneurship. However, if SE activities would not necessarily qualify as entrepreneurial activities judged on economic merits alone, then SE deserves special scholarly attention.

Consider the illustrative case of British entrepreneur and eco-chef, in March 2009, Arthur and his business partners developed the idea for The People's Supermarket. Facing the unsustainable practices of the British retail sector, they aimed to create a food buying and retail network connecting an urban community in central London with local farmers, promoting ecological and fair values. The People's Supermarket is a hybrid sustainable venture, a cooperative convenience store that achieves growth and profitability targets while promoting equity, cohesion, community development, and healthy living.

Members pay £25 a year for a share in the supermarket and commit to working four hours each month, receiving a 10 per cent discount on purchases, a share of ownership, and a vote in the enterprise's management. This model of hybridity, collective ownership, and sustainability deconstructs traditional mass food retail business practices, reshaping them along more ethical and environmentally sustainable lines. Arthur integrated environmental best practices into all business activities, reducing the venture's environmental impact and creating units like The People's Kitchen, which cooks ready meals from out-of-date produce, reducing monthly food waste by 500 kilograms, increasing ready meal sales, and providing full-time employment to previously unemployed community members. The People's Florist and The People's Delivery further illustrate how the supermarket boosts the local economy and creates job opportunities.

The People's Supermarket exemplifies how entrepreneurial action can create economic gains, preserve ecosystems, and improve community well-being. It shows that SE expands the traditional entrepreneurial logic, integrating the pursuit of profit with opportunities to protect and improve natural and social environments. While social

and environmental entrepreneurship has evolved as separate streams, sustainable entrepreneurship, as the conceptual category encompassing triple-bottom-line ventures, focuses specifically on sustainable development. As Shepherd and Hockerts suggest, ecopreneurship and social entrepreneurship are parts of, not synonymous with, sustainable entrepreneurship. Ultimately, sustainable entrepreneurship combines economic, social, and environmental value creation with a concern for future generations well-being (Hockerts & Searcy, 2023).

Given SE's complexity and practical relevance in improving societal, economic, and environmental development, it deserves attention within entrepreneurship research. Sustainable entrepreneurship research is necessary to explore how entrepreneurial action can sustain nature and ecosystems while providing economic and non-economic gains for investors, entrepreneurs, and societies.

## VI. RESEARCH AND FINDINGS

The findings of this study indicate that sustainable entrepreneurship can significantly contribute to economic development while promoting environmental and social sustainability. Companies with a high degree of entrepreneurial orientation, characterized by innovativeness and proactiveness, are more likely to engage in sustainable practices. These companies often achieve competitive advantages by aligning their business strategies with sustainable development goals. The study also finds that risk-taking, when aligned with social and ecological goals, can positively influence sustainable development. However, autonomy in decision-making does not directly contribute to sustainability unless it is part of a broader strategic objective.

Overall, the integration of sustainable practices into entrepreneurial ventures creates opportunities for long-term competitive advantages and contributes to the overall well-being of society and the environment. The research suggests that businesses should adopt a holistic approach, balancing economic, environmental, social, and cultural dimensions to achieve true sustainability.

## VII. CONCLUSION

In conclusion, this chapter has explored the intricate relationship between entrepreneurship and sustainability, revealing their converging roles in addressing contemporary global challenges. Entrepreneurship, characterized by innovation and risk-taking, serves as a vital catalyst for economic growth and human development. Its impact extends beyond profit-making to encompass broader societal benefits, fostering job creation, wealth distribution, and technological advancement.

The integration of sustainability into entrepreneurial endeavours marks a paradigm shift towards more responsible business practices. Sustainable entrepreneurship, defined by its commitment to environmental stewardship, social equity, and economic resilience, emerges as a transformative force in



shaping a sustainable future. By adopting sustainable business models and practices, entrepreneurs can mitigate environmental degradation, promote inclusive growth, and enhance the well-being of communities.

Throughout this chapter, we have examined the evolving landscape where entrepreneurship and sustainability intersect. We have highlighted the synergies between these concepts, emphasizing how entrepreneurial initiatives can contribute to sustainable development goals. From promoting eco-innovation to enhancing corporate social responsibility, entrepreneurs play a pivotal role in driving positive change.

Looking ahead, the importance of sustainable entrepreneurship will only grow as societies seek solutions to pressing global issues such as climate change, resource depletion, and social inequality. Governments, businesses, and civil society must collaborate to create enabling environments that support and incentivize sustainable entrepreneurial ventures. This requires policies that encourage innovation, foster partnerships, and reward sustainable practices.

In summary, the insights presented in this chapter underscore the transformative potential of sustainable entrepreneurship. By embracing sustainability as a core principle, entrepreneurs can not only create economic value but also contribute meaningfully to environmental conservation and social well-being. As we navigate the complexities of the 21st century, sustainable entrepreneurship stands as a beacon of hope for a more equitable, prosperous, and sustainable future.

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