

The Contribution of Green Entrepreneurship in Accelerating Sustainable Development: An Analytical Study Using SWOT Model

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Abstract

The present study contributes in light shedding on the pivotal role that plays green entrepreneurship in the achievement of the sustainable development goals since the latter aims primarily to deliver solutions to the accompanying and inevitable developmental challenges, either environment, social, or economic. Because economic activities generate waste that considerably impacts the environment, major economic organizations are at the obligation of adopting practices that consider the fundamental dimensions of sustainable development. A fact that created a shift from the traditional entrepreneurship model to what is known today as the Green Entrepreneurship, which plays a crucial role in the achievement of sustainable development. A fact that in turn led the present study to the examination of various, previous studies in an effort to uncover the existing relationships between the different variables using the SWOT analysis to the identification of strengths, weaknesses, opportunities, and threats, resulting from the shift towards green entrepreneurship in the context of sustainable development. The findings concluded that green entrepreneurship works towards the accelerative advantage of the sustainable development through its dimensional embodiment as part of the green entrepreneurship requirements. Additionally, the encouragement of clean energy exploitation and innovation that tends to increase economic opportunities for entrepreneurs in various fields such as renewable energy and sustainable agriculture.

Keywords: green entrepreneurship, sustainable development, SWOT analysis.

1 Introduction

The rapidly evolving technological advancement entailed significant changes in individuals' interests and priorities, as well as the diversification of their activities, resulting in a disruptive and negative impact on the planet. A compelling reality that left policymakers with no other option but to adopt behaviors to officially manage the collateral, developmental negative impact affecting the well-being of the planet and its inhabitants and the implementation necessity of various improvement policies to the current situation. In this context, the concept of sustainable development has emerged to guarantee the satisfaction of various human needs and aspirations while simultaneously striving to protect and rationalize natural resources exploitation.

In the same context, numerous studies in the environmental quality field have emerged in the aims of highlighting the spurring variables to achieving economic growth without affecting the natural environment. An event that led to the prominence of green entrepreneurship and the shifting necessity of businesses towards this model that established its association with cleaner production and clean energy, which proved to be reductive to environmental pollution. Consequently, in recent years, the witnessed disruptions to the ecosystem worldwide, along with the industrial development and the lack of clean production methods have necessitated taking mitigative measures to the resulting negative effects. A set of factors that prompted the transition towards this new model in search of a clean production where consumers grow more aware and conscious by the day of the necessity to change their consumption patterns and adopt sustainable change, which was reflected in transformational business practices from the traditional form to the more sustainable form.

In consequence, it is safe to assume that green entrepreneurship represents one of the most dependable solutions for investment expansion in eco-friendly and socially responsible products and services. In addition to that is achieving other

goals such as providing employment opportunities and addressing climate change and other objectives that align with sustainable development goals. In this context, the apparent problem statement of the study is presented, as follows:

To what extent green entrepreneurship is contributing to the achievement of sustainable development?

2 Previous Studies

2.1 Beverly MADZIKANA and Cai LI (2022). To what extent does green entrepreneurship contribute to sustainable development and clean production: An ARDL approach.

The study prime focus was on sustainable development as a common goal for all countries and as conversational centerpiece since the United Nations introduced the Sustainable Development Goals (SDGs) in 2015. In the study, the role of green entrepreneurship in achieving sustainable green development in the three emerging Asian economies China, India, and Singapore was identified. Two proxies were used in the analysis to measure the (GE) General Electric involved in research and development (R&D) investments in green development projects and patents in green or clean technologies field. A non-linear ARDL was exploited to empirically estimate the data. The results supported the increased R&D investments' long-term and short-term benefits in expanding the green economy. In a similar fashion, the increased number of green patents and clean technology inventions also led to an increase in short-term and long-term green economic growth. Other contributing elements to the promotion of green economic growth included trade and the increased skilled workers population. Accordingly, a set of green entrepreneurship policies has been proposed to the improvement of sustainable development.

2.2 Xushi WEI, Haiping REN, Sana ULLAH and Cuma BOZKURT (2022). Does environmental entrepreneurship play a role in sustainable green development? Evidence from emerging Asian economies.

Expanding on the increasing worries among policymakers worldwide with regard to green entrepreneurship and the expansion of green growth, the study aimed at elucidating the role of green entrepreneurship in achieving sustainable green development in emerging Asian economies such as China, India, Indonesia, Korea, Malaysia, Pakistan, the Philippines, Thailand, and Singapore. For analytical purposes, two separate proxies of green entrepreneurship were employed, counting electricity generation from renewable energy sources and both nuclear and renewable energy production. An ARDL-PMG was applied for empirical estimation. The ARDL-PMG panel obtained results that affirmed both short-term and long-term positive impact of electricity generation from renewable energy sources on green economic growth. Correspondingly, renewable energy generation entails also an increase in both short-term and long-term green economic growth. Trade serves as another element that can help promote green economic growth. Important policy insights for green entrepreneurship and the growth of electricity production from renewable sources have been proposed. Therefore, governments in these emerging Asian economies should focus on enhancing renewable energy as it provides entrepreneurs with the opportunity to produce products using cleaner, more eco-friendly energy sources that cause less harm to the environment. A fact that would result in a positive impact on both economic growth and research. Thence, the government of an emerging economy should primarily focus on producing and consuming renewable energy and technological innovation. Policymakers should improve environmental laws and regulations, promote transparency, and introduce policies that encourage new entrepreneurs to venture into renewable energy industry.

2.3 Thomas, NEUMANN (2022). Impact of green entrepreneurship on sustainable development: An ex-post empirical analysis.

The study is an addition to the streaming research on econometric entrepreneurship through the introduction of the environmental orientation of the latest projects as a key element for sustainable development. The study assesses empirically the existence of relationships between economic, social, and environmental development and the national shares of Green Entrepreneurship Activity (GEA). The theoretical and initial empirical evidence suggested that, in comparison with conventional new projects, new green projects carry a more positive economic and social impact and present less harm to the environment quality and can even be beneficial. To test the impact of GEA rates (total entrepreneurial activity share) on GDP, modified Human Development Index, and carbon dioxide emissions, OLS regressions were estimated. Data from the Global Entrepreneurship Monitor for 11,909 early-stage entrepreneurs were collected from 53 countries and merged with other international datasets. The results affirmed that higher GEA shares are

positively associated with economic and social development and not with environmental development. Further tests affirmed results' robustness for different levels of economic development, time-lag variations, and diverse measures of independent and dependent variables. The specified economic and social importance of GEA indorses the intensive policy efforts in support of discovering, creating, and exploiting green business opportunities. Potential interpretations for the imposable and non-significant environmental impact were discussed, which leads to new avenues for research.

2.4 Wafa ALWAKID, Sebastian APARICIO and David URBAN (2021). The Influence of Green Entrepreneurship on Sustainable Development in Saudi Arabia: The Role of Formal Institutions.

The study chiefly aimed at exploring the impact of green entrepreneurship activity on sustainable development, utilizing as a theoretical framework the institutional economics. Alongside that, analyzing the role of entrepreneurship policy in the Saudi Arabia context. By exploiting data of thirteen Saudi cities obtained from the General Authority for Statistics, the study applied a range of previous models and alternative dimensions to assess the unique characteristics of the social, economic, and environmental systems in Saudi Arabia. Institutional conditions were measured concerning non-compliant incentive schemes and benchmarking geographical comparisons for entrepreneurship indicators. While these methods produced diverse quantitative models, they also presented several critical limitations, leading to the deviation and the weakening of results' effectiveness. Government performance was utilized to track progress towards achieving the Sustainable Development Goals of 2030 Vision. The key findings established that green entrepreneurship positively contributed to the economic, social, and environmental components of sustainable development during the period of 2012-2017. The results also demonstrated a measurable index for sustainable development outcomes, which indicated that Saudi institutions align entrepreneurship activities with a triple bottom line effect. The findings provided new justifying evidence of Saudi Arabia government commitment to supporting green entrepreneurship and encouraging future local policies.

3 Green Entrepreneurship Concept

Entrepreneurship is supported by a host of researchers as a reflective response to the expansive social and environmental issues. The researchers argued its ability to ensure a more sustainable future because of its heavy reliance on innovative ideas, particularly in the environmental and social aspects. The argument is to couple the new with the traditional entrepreneurship that has commerce as focus and profit maximization as aim (Sarvari, Jabarzadeh, Karami & Jabarnejad, 2023, p. 02).

The term "green entrepreneurship" consists of two words: "green" and "entrepreneurship". The word "green" refers to all activities contributing to the reduction of negative environmental impacts while the term "entrepreneurship" refers to all business ventures involving financial risks and aiming primarily at making profit (Rishiraj, 2018, p. 04).

In this context, there have been various definitions to the entrepreneurship concept. It was regarded as the activity practiced by the green entrepreneur, where positive returns both environmentally and economically are simultaneously achieved. It has also been defined as the practice of initiating new ventures in response to a specific opportunity to generate profit with the provision of positive environmental factors and reduction of the negative factors (Chygryn, 2017, p. 08).

Green entrepreneurship is regarded as a global phenomenon for knowledge and measures redefinition as solutions to environmental issues, global warming, and resource crisis. A model that sets new standards in the enhancement of the capacity to support technology, innovation, and human resources to the overcoming of social and environmental issues (Nuringsih, Nuryasman & Nuryasman, 2020, p. 120).

Dean and Macmillan (2007) also viewed green entrepreneurship as an exploitive process of existent economic opportunities through an eco-friendly approach, where the market fails to meet environmental needs at the expense of society (In Sarvari, Jabarzadeh, Karami, & Jabarnejad, 2023, p. 02).

Green entrepreneurship, therefore, entails an innovative process of solutions to social and environmental problems, chiefly involving entrepreneurs identifying business opportunities that enable them to adopt solutions through both adaptation and learning (Galindo-Martin, Castaño-Martinez & Méndez-Picazo, 2020, p. 04).

In a circumstanced and changing context that led to green entrepreneurship emergence that assumes the making of more responsible businesses towards the environment and the communities in which they operate, green entrepreneurship is deemed to be a crucial strategy that addresses sustainable development challenges. It has been defined in the sense of creating new ventures in the aims of economic value generation with the addressing of social issues and sustainability promotion. Green entrepreneurial ventures strive to address the threefold sustainability gists: the economic, social, and environmental (Prasad, 2023, p. 485).

Green or sustainable entrepreneurship is considered one of the invaluable, practical alternatives for business reconstruction, in their traditional forms, in order to gain acceptance and support from the civil society and governments and create a sustainable impact to meet the needs of low-income and low-education groups, residing often in the remote and marginalized areas (Goyal, & Sergi, 2015).

Green sustainable enterprises are fundamentally linked to the entrepreneur's ability to identify new opportunities for self-realization, higher levels of human needs fulfilment, and economic and social value creation for all stakeholders within the community. Social entrepreneurship is a distinctive feature involving human capabilities and skills that work to innovations creation and creative implementation in both business and society (Raudeliūnienė, Tvaronavičienė & Dzemyda, 2014).

4 Green Entrepreneurship Characteristics

The green entrepreneurship field is characterized by a set of distinguishing features from traditional entrepreneurship, which can be summarized in the following:

4.1 Costumer Attraction

Customers often overlook green products due to their preconceived notions about the desired products or options. Thence, green business entrepreneurs are to attract customers to eco-friendly products by highlighting the consumption benefits, as well as the costumer's contributing, positive impact on society by favoring eco-friendly products.

4.2 Knowledge Renewal

Because of the potential risks that green entrepreneurs face and the existing competitive businesses and products, they must remain constantly informed about the work environment updates. A fact that enables them to survey for useful information in order to seize potential opportunities and avoid possible threats. An objective that could be achieve through forum participation, reading the activity-related news, as well as acquiring the skills that enable business growth and market position enhancement.

4.3 Market Sustainability (Businesses)

Green entrepreneurs must work to sustain their market activity, which requires significant effort in prioritizing how products and services reach the customer and significantly reducing material waste. As such, green entrepreneurs are to prioritize and ensure the achievement of their business goals alongside their commitment to social responsibility towards the community (Kavya, Murugeswari, Rajeshwari, Sruthi, & Maharani, 2022)

5 Green Entrepreneurship Advantages and Disadvantages

Green entrepreneurship principally focuses on achieving a balance between fostering financial sustainability and green practices, aiming to sustain positive environmental impacts without compromising the business core economic objectives.

5.1 Green Entrepreneurship Advantages

Green entrepreneurship provides valuable opportunities for the entrepreneurs, which can be summarized in the following:

– **Reduced facility costs**

Businesses of varying sizes can benefit from cost savings on utilities due to their efficiency in energy use and resource conservation. A practice that produces reduced utility bills and efficient resource management that results in surplus in maintenance expenses. To achieve this, businesses resort to using energy-efficient electronic devices, water conservation and recycling, as well as waste management to avoid environmental pollution, thus, reduction of the associated liabilities;

– **Reduced Adverse Environmental Impacts**

Since businesses have numerous negative environmental impacts, they bear a significant responsibility to take actions and initiatives aimed at reducing environmental degradation, to which they often majorly contribute. The responsibility involves adopting practices that prioritize environmental issues, in addition to introducing improvements and radical changes to all operations that have effects and implications on the environment in general. The actions include efficient energy use, water conservation and non-wastage, efficient waste management and resource recycling, transitioning to clean energy sources, as well as working to reduce manufactory emissions and offering eco-friendly products and services;

– **Enhanced Public Image**

In the recent years, green entrepreneurship has gained significant importance due to increased environmental awareness, together with a notable tendency among individuals towards green products and services. Therefore, the shift of businesses towards adopting green practices contributes significantly to improving the business image within the civil society as a whole. The image enhancement is achieved through organizing green events to create positive public opinion, exploiting green packaging materials as an attraction tool of environmentally conscious consumers, and disclosing the green practices adopted by the businesses to help build a positive perception among stakeholders;

– **Tax and government incentives**

Businesses with environmental orientations and green practices are granted governmental taxation incentives to support environmental sustainability and ensure people's well-being. The provided support takes the form of tax exemptions, discounts on purchases, direct financial aid and grants, as well as offering compliance incentives with specific standards. A worth noting fact is that governments also provide incentives for businesses, on the condition that their manufacturing processes are free from environmentally harmful substances, which would contribute to the reduction of negative environmental impacts and environment preservation.

– **Growing Business Opportunities**

The shift towards green sustainability has contributed to business opportunities increase that is attributed to some governmental institutions and non-profit organizations preferencing to engage with environmentally-oriented businesses. The latter adhere to environmental standards and requirements in their products and services, which are characterized as eco-friendly (Mammeri, 2021, pp. 09-11).

– **Environmental Protection**

Green entrepreneurship entails numerous benefits as green entrepreneurs can directly develop public relations to implement new ideas for customers. Additionally, the controlled manufacturing process of green products also ensures minimal material wastage and guarantees that the manufacturing generated waste does not negatively impact the environment.

– **Customer Opinion**

Customers are more inclined to engage with businesses that prioritize environmental conservation. Numerous traditional businesses operating within densely populated areas emit harmful environmental pollutants, along with noise pollution affecting the local consumers. Green businesses, on the other hand, take customers' opinions into consideration and strive for a positive local response (Kavya et al., 2022, p. 500).

5.2 Green Entrepreneurship Disadvantages

Despite the advantages and benefits associated with the shift towards green businesses, they carry also disadvantages or challenges, which may constitute one of the most significant obstacles facing the entrepreneur's project launch.

– **Expenses**

In comparison to the traditional entrepreneurship, the green entrepreneurship entails higher expenses, which is reflected in the higher prices of the marketed products and services. A fact that affects the customer category with consumption preference for such products. What is worth noting is that the transitioning process from traditional into sustainable or green businesses is not an easy process. The process involves numerous risks that lead to expense increase, as it may require adopting new an eco-friendly technology in the manufacturing process;

– **Decreased Savings**

The expense increase in the acquisition of green entrepreneurship resources also affects the value of the retained savings within the businesses, which necessitates adopting methods that allow exploiting opportunities for cost reduction.

– **Time Factor**

Time is an important element in business operations. However, the shift towards green sustainability and the green production process is time consuming, starting from contemplating the production of an eco-friendly product or service, through to the implementation and marketing process. The whole of the aforementioned requires significant time for decision making (Kavya et al., 2022, p. 501).

6 Sustainable Development Concept

According to various researchers, the concept of sustainable development received its first formal recognition in 1972, during the United Nations Conference on the Human Environment held in Stockholm. Although the term sustainable development was not explicitly mentioned, the underlying idea, which emphasized the integration of development and environmental concerns, gained significant acceptance within the international community. All due to the fact of addressing the notion of balancing development and the environment as separate entities. With the world's growing attention to environmental issues and climate change, which drew the focus of international organizations and bodies, sustainable development was explicitly discussed in the Brundtland Report, "Our Common Future", prepared by the World Commission on Environment and Development in 1987. The report defined sustainable development as development meeting current and future generational needs (Mensah, 2019, p. 07) with emphasis on the importance of balance achievement between economic growth, environmental protection, and social justice.

Furthermore, it becomes apparent that sustainable development serves as an addressing mechanism of the shortcomings associated with the current developmental paradigm. The new developmental paradigm namely focuses on achieving economic growth while considering both the environmental and social dimensions (Elmoukhtar, Touhami, Taquabit & Mouhtat, 2022, p. 179). Therefore, sustainable development represents a policy in the path of recovery aiming towards the maintenance of a certain balance between artificial conglomerates and natural ecosystems (Beloglazova, Stepanova, Telezhko, Shaitura, Kirillova & Biryukov, 2023, p. 04).

Alternatively, sustainable development aims to achieve economic development while focusing on environmental protection through the sustainable use of global resources. The sustainable resource use requires the implementation of a systematic approach to the economic production structure, along with a fundamental strategic formula to ensure environmental sustainability (Audu, 2022). Achieving sustainable development stipulates balancing the core developmental components that are the ecological, social, and economic. A balance that introduces the idea of bringing about significant changes in social relationships and in the society's structuring with expectation to change its production and consumption patterns to avoid negative impacts on the environment. Therefore, achieving sustainable development carries an ethical dimension, as it reflects a shift in the individuals' orientations (Rudevskaya, Shvets, Shkvaryliuk & Tanase, 2022, p. 39).

Considering the active role economic organizations play in the economy as a whole, their commitment to applying the sustainable development concept and aligning its principles with their practices and priorities plays a significant role in establishing both a healthy, stable society and economy. In this context, the need for organizations to balance their operations' impacts with their goals and to adopt measures characterized by environmental integration, social justice, and economic feasibility in compatibility with stakeholders' expectations is evident.

Based on the Brundtland Report, sustainable development has become one of the fundamental objectives and priorities particularly for policymakers, on which various aspects of sustainability were formulated within the context of the triple

bottom line framework. A framework that includes the three key concerns: environmental, societal, and economic contribution. According to the latter report, three fundamental components are involved within sustainable development: environmental protection, economic growth, and social equality (Belouadah, Abdallah & Mohammed, 2023, pp. 33-34).

7 Sustainable Development Dimensions

The fundamental dimensions of sustainable development can be summarized in three aspects: environmental, social, and economic. The three are detailed as follows:

7.1 Economic Dimension

The dimension refers to the economic and technological activities' efficiency, productivity and investment fostering, economic output potential, and economic growth (Amir & Bey, 2021, p. 248). The economic dimension is considered one of the key aspects of both traditional and sustainable development simultaneously. The aim of sustainable economic systems is to sustain economic development through effective management of resource use, meeting individual needs and requirements, enhancing the standard of living by increasing profits, and providing goods and services continuously. The dimension also works on avoiding imbalances that could negatively impact agricultural or industrial production. The economic dimension of sustainable development is linked to the organization's impact on stakeholders' economic conditions and economic systems at all levels, locally, nationally, and globally (Belouadah et al., 2023, pp. 33-34).

7.2 Environmental Dimension

Natural capital refers to all-natural resources that the human is able to either alter or improved but unable to create. Natural assets are classified into two categories: non-renewable resources, such as minerals, and renewable resources, such as water resources and food crops. Natural capital also includes the ecosystems' ability to absorb pollutants and emissions resulting from human activities (Belouadah et al., 2023, p. 34). In the context of the environmental dimension of sustainable development, preserving these resources is among its priorities by taking both the proper measures and actions to the achievement of environmental sustainability (Santhanaleximi & Chandramohan, 2020, p. 70). Hence, sustainability aims to maintain the resilience and capacity of the ecosystem (Harris, 2000, p. 13).

7.3 Social Dimension

A worth noting fact is that the social aspects inherent in sustainable development fall under the term "social sustainability," which encompasses both social justice and stability (Ketschau, 2017). Social sustainability also includes a comprehensive ethical approach to human growth and survival that should be undertaken in a responsible and beneficial manner for all parties involved. Numerous experts agree that social sustainability involves elements like diversity, charity, health and safety, equality, poverty reduction, and human rights. In order to achieve the social dimension's goals, it is of importance to promote equal resource distribution, essential social services provision, including education and health, gender equality achievement, political participation and accountability promotion (Belouadah et al., 2023, p. 34), as well as ensuring equal opportunities for individual development and employment, ensuring social stability, and improving environmental, economic, and social performance as targeted criteria for a social and sustainable development.

8 Green entrepreneurship Role in the Realization of Sustainable Development

With an increasing focus on sustainable development as a global priority by researchers and decision-makers, there has been a question about the role that entrepreneurship can play in achieving the goals of sustainable development. Evidently, the contribution of such businesses to sustainable development requires a change in both production and consumption patterns, which are often unsustainable as well as a change in the nature of the offered products and services, into a greener nature. Entrepreneurial culture promotions within organizations would probably lead to innovations of the likes of recycling, and technology use reduces carbon emissions, improve energy efficiency, and promote effective resource utilization. Entrepreneurial inventions are to foster a culture of sustainable development that would arguably result in employment opportunities creation, productivity increase, and promote technological innovation

and structural reorganization. The innovations also ensure the rightful resource use for future generations (Jabik & Bawakyillenuo, 2016, p. 102).

The significance of green entrepreneurship and its role in realizing sustainable development is evident in the improvement of environmental, economic, and social conditions. Additionally, it enhances resource efficiency and develops technologies and processes that reduce natural resources consumption and promote environmental efficiency by encouraging the adoption of clean and sustainable technologies. Progress in clean energy and water management contributes to green economy promotion by stimulating innovation and creating employment opportunities in the sustainable sectors.

Green entrepreneurs work to attract investments with particular focus on positive environmental impact and assumes social responsibilities that promote justice and sustainability. Green entrepreneurship can be seen as a key driving force for the balancing of economy and environment that would in turn effectively contribute to achieving the sustainable development goals. Green entrepreneurship plays a crucial role in achieving sustainable development through its contribution to the improvement of the environmental, economic, and social conditions. In this context, a number of highlighting aspects to the cruciality of green entrepreneurship's role are as follows:

– **Resource Efficiency Improvement**

By developing reductive consumption technologies and processes of natural resources and enhance environmental efficiency, including the use of renewable resources, reducing waste, and improving production processes to minimize waste, resource efficiency is to be improved;

– **Innovation and Clean Technology Enhancement**

Such technology might include innovations in clean energy, water management, and carbon emissions reduction;

– **Green Economy Boosting**

By relying on activities that improve environmental performance and enhance economic growth and sustainability, green economy is to be boosted, resulting in the creation of new employment positions in the sustainable sectors;

– **Environmental Investment Stimulation**

The green business sector attracts investors seeking investment opportunities that yield financial returns while simultaneously achieve environmental benefits. Leadership in this field can play a role in directing funding towards environmental projects;

– **Improving Social Responsibility**

By focusing on the environmental impact of their businesses, green entrepreneurs commit to social responsibility, which reflects their values and desire to build more sustainable and equitable communities;

– **Balance Encouragement between the Economy and the Environment**

Green entrepreneurs contribute to balance promotion between the economy and the environment that reduces the negative impact of economic activities on the environment while simultaneously achieving economic benefits.

Green entrepreneurship contributes to achieving environmental sustainability by adopting business practices and technologies that mitigate the negative impact on the environment through the following:

– **Renewable Resources Use**

A practice that encourages the use of renewable energy sources such as solar and wind energy, and stimulate innovation in the development of clean energy technology;

– **Resource Consumption Efficiency Improvement**

A practice that encourages adopting strategies to enhance the efficiency of resource consumption such as water, energy, and raw materials, and developing eco-friendly production processes;

– **Waste management**

A practice that encourages promoting material recycling and sustainable waste disposal, reducing waste production, and adopting the circular economy principles;

– **Eco-friendly Products Development**

A practice that encourages designing and marketing products characterized by sustainable manufacturing and biodegradability, as well as promoting the consumption of products with low environmental impact;

– **Environmental Technology Innovation**

A practice that encourages supporting research and development in the field of environmental technology to find new solutions to environmental challenges; in addition to investment expanding in innovative environmental technologies;

– **Clean Transportation Encouragement**

A practice that encourages supporting and promoting the use of eco-friendly transportation such as electric cars and public transport that preserves the environment from pollution and safeguards human health;

– **Commitment to Environmental Standards**

A practice that encourages compliance with environmental standards and the relevant legislation to improve environmental performance and reporting regularly on environmental impact;

– **Environmental Awareness**

A practice that encourages employees and customers to be aware of environmental issues, and organizing awareness campaigns about environmental responsibility;

– **Strategic Partnerships**

A practice that encourages collaborating with other organizations and the government to enhance environmental practices and participate in initiatives and programs promoting sustainability;

– **Investment in Research and Development**

A practice that encourages directing investments towards innovation and research in environmental technologies, and supporting research projects aimed at developing sustainable environmental solutions;

Therefore, green entrepreneurship strives for change stimulation towards more environmentally sustainable lifestyles and businesses, which contributes to environment preservation for current and future generations.

In achieving social sustainability, green entrepreneurship plays a vital role that includes the following:

– **Sustainable Employment Opportunities Provision**

Achieved through establishing companies that adhere to sustainability principles, which can contribute to providing employment opportunities for local communities;

– **Local Development Promotion**

Achieved through supporting green projects that can contribute to enhancing local development by providing employment opportunities and boosting the local economy;

– **Community Awareness and Education**

Achieved through encouraging awareness of sustainability issues and motivating communities to adopt eco-friendly lifestyles;

– **Green Products and Services Promotion**

Achieved through offering products and services based on sustainability principles, which can improve consumer lifestyles and encourage sustainable consumption;

– **Sustainable Business Practices Adoption**

Achieved through implementing sustainable business principles and green practices within the organization, including waste management and resource efficiency improvement;

– **Community Engagement**

Achieved through activating the organizations' role by contributing to the development of local communities through social projects, based on sustainability concepts;

– **Investment in Education and Training**

Achieved through supporting education and training in sustainability-related fields that are capable of improving the skill levels within the community.

Green entrepreneurship is not just concerned with profit, but also achieving a balance between profits, the environment, and society. By following sustainability principles, green businesses can serve as models for positive social change.

As for the role of green entrepreneurship in achieving economic sustainability, which is accomplished through balancing the economy and the environment, it involves the following:

– **Innovation and Clean Technology Encouragement**

The promotion of innovation in environmental technology that enhances sustainability and improves economic efficiency;

– **Employment Opportunities Provision**

The establishment and development of green projects that contributes to employment creation and employment rates increase;

– **Sustainable Value Enhancement**

The development of products and services with sustainable value contributes to need satisfaction of a changing market;

– **Resource Use Efficiency Improvement**

The adoption of eco-friendly production processes reduces resource costs and improves economic efficiency;

– **Environmental Costs Reduction**

The decrease in energy and raw material consumption can lead to lower operational costs;

– **New Markets Development**

Achieved through exploiting the growing demand for green products and services to open new markets and expand the business scope;

– **Sustainable Supply Chains Improvement**

Achieved through collaboration with partners in the supply chain to improve sustainability practices and reduce risks;

– **Sustainable Marketing**

Achieved through the use of marketing strategies that highlight sustainability and the organization's social responsibility aspects;

– **Investment in the Community**

Achieved through providing sustainable support to local communities through the investment in social projects and local development;

– **Compliance with Economic and Environmental Standards**

Achieved through ensuring business compliance with economic and environmental standards that strengthens its reputation and unlocks greater opportunities to join international markets;

– **Environmental Investment Encouragement**

Achieved through supporting and attracting investment in projects and businesses that focus on sustainability;

– **Enhancing Partnerships with Government and Other Organizations**

Achieved through participating in partnerships with government and non-governmental organizations to promote sustainable projects and enhance the sustainable economy.

The whole of the aforementioned renders green entrepreneurship to be a significant contributor to the building of sustainable development as it is committed to achieving a balance of a responsible benefit that accounts for both environment and society.

Based on the above, sustainable development means achieving economic and social development in such a manner that does not exhaust all the natural resources of a certain country, while preserving and improving the life quality for humans who chiefly rely on the capacities of the surrounding ecological systems. Sustainable development also provides solutions to human, social, and economic problematic, developmental patterns in a preventative effort of natural resource depletion, ecosystem degradation, pollution, climate change, overpopulation, injustice, and deterioration of both present and future life quality. Therefore, it is a process of resource utilization, investment management, technology development, and organizational changes that are in synergy with present and future needs; ... This is what characterizes green entrepreneurship as it actively facilitates sustainable development by an evolutionary emphasis on such concepts as production, exploitation, and innovation to produce eco-friendly products, through industrial reorganization, technological facilities exploitation, and creation of green employment opportunities (Lotfi, Yousefi & Jafari, 2018, p. 04). Factually, as key components to green entrepreneurship, one might consider: economic development, environmental quality, social welfare, innovation, sustainability, and technological advancement (Isac, 2021, p. 156).

Table 1

Green Entrepreneurship SWOT Analysis in the Context of Sustainable Development

Strengths	Weaknesses	Opportunities	Threats
<p>Technological and environmental innovation: The organization's ability to develop new and innovative (green) technologies that improve the environmental impact by developing and offering eco-friendly products and services.</p> <p>Sustainable supply chain: The ability to build a green supply chain for accurate tracking of environmental efficiency and resource sustainability.</p> <p>Strategic partnerships: Collaboration with environmental organizations with sustainable perspectives that enhance the organization's reputation and expand its influence.</p> <p>Sustainability orientation: The ability to capitalize on the growing trend towards green living and environmental concern.</p> <p>Governmental incentives: Support from governments and environmental agencies through financial incentives and supportive legislation for green businesses.</p>	<p>Limited impact: Limited potential to cause market change due to the size of funding and operations.</p> <p>Expensive technology: Adoption of advanced but expensive technology can be a barrier to the widespread adoption of these technologies.</p> <p>Lack of consumer awareness: Lack of awareness among consumers about green projects importance may result in demand decrease.</p> <p>Lack of benefits awareness: There might exist a lack of general awareness about the green products and services environmental benefits.</p> <p>Dependency on technology: Reliance of business growth on specific technology may render them less resilient when facing challenges.</p>	<p>Market expansion: Exploiting expansion opportunities in emerging markets and meeting the increasing demand for green products and services.</p> <p>Innovation funding programs: Leveraging government and private funding programs that support innovation and sustainable development.</p> <p>Activating the customer base: Improving communication between organizations and customers and encouraging social participation through environmental initiatives.</p> <p>Increased demand for green products: Rising demand for eco-friendly products and services amid growing interest in sustainable development.</p> <p>International cooperation: Possibility for collaboration opportunities with international organizations and foreign partners for technology exchange and business expansion internationally.</p> <p>Environmental legislation: Possibility for opportunities to benefit from stringent environmental legislation and policies that promote green businesses.</p>	<p>Legislative changes: Evolving environmental legislation can expose the organization to legal accountability and new compliance costs.</p> <p>Market fluctuation: The impact of economic fluctuations on consumption and investment may affect the stability of green businesses.</p> <p>Intensive competition: Increased market competition may result in profit margin decrease.</p> <p>Environmental changes: Climate change and natural disasters impact can pose a threat to green businesses.</p> <p>Economic instability: Economic fluctuations may affect organizations' willingness to invest in green initiatives.</p>

The SWOT analysis indicates that investment in sustainable technology and effective partnerships building can be of significant importance to green entrepreneurship. Green organizations are in need for coherent strategies formulation to address the possible challenges and capitalize on the potential opportunities. The analysis also contributes to understanding the environmental and economic contexts surrounding the green business projects and facilitates making the appropriate strategic decisions.

9 Conclusion

The businesses' sustainable shift and adoption of a green, eco-friendly dimension distinguish them from the traditional entrepreneurship in both nature and purpose. Sustainability-oriented businesses align with the philosophies and practices related to sustainable development. Accordingly, the orientation of entrepreneurs towards green entrepreneurship is not inherent nor instinctive; rather, it reflects high development and awareness levels. A fact that renders green entrepreneurship to be a complex concept with various dimensions in need for continuous and sustainable reinforcement and consolidation. To ensure the growing opportunities for green entrepreneurship and capitalize on the accompanying advantages within the development context, continuous encouragement for entrepreneurs must be present to steer their businesses towards sustainability by abandoning the old production methods employed in traditional businesses. Hence, the following reductive conclusions have been reached:

- Green entrepreneurship contributes to the addressing of climate change issues by utilizing innovative technologies that reduce the environmental footprint and waste.
- Green entrepreneurship fosters social responsibility through sustainable practices that enhance its reputation, brand, and attract environmentally supportive consumers.
- Green entrepreneurship accelerates the achievement of sustainable development by embodying its dimensions that are fundamental requirements for green entrepreneurship.
- Green entrepreneurship increases entrepreneurs' economic opportunities in the fields of renewable energy, sustainable agriculture, waste management, and technological innovation.

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