



Green Entrepreneurship in India: A Tool for Sustainable Development

Seema Srivastava, (Ph.D.) Department of Commerce
Monika Gulati, (Ph.D.) Department of Commerce
Motilal Nehru College, University of Delhi, Delhi, INDIA

ORIGINAL ARTICLE



Authors

Seema Srivastava Ph.D.

Monika Gulati Ph.D.

shodhsamagam1@gmail.com

Received on : 15/06/2023

Revised on : -----

Accepted on : 22/06/2023

Plagiarism : 02% on 15/06/2023



Plagiarism Checker X - Report

Originality Assessment

Overall Similarity: **2%**

Date: Jun 15, 2023

Statistics: 65 words Plagiarized / 2850 Total words

Remarks: Low similarity detected, check with your supervisor if changes are required.



ABSTRACT

Entrepreneurial activities are necessary for economic development of any country. An economy is said to be developed when it is able to improve its GDP by utilizing the resources available. Entrepreneurs aim at making optimum use of resources for productive activities. Resources are scarce and India being over populated country is facing the threat of depletion of resources. Not only India but countries all round the globe are facing same problem of scarcity of resources. Indeed, every country must use the resources efficiently for Sustainable Development. India follows a holistic approach to attain Sustainable Development Goals through various programmes and schemes which are being implemented in many states and union territories. The Namami Gange Mission- a key priority programme for achieving the SDG-6. Major components include sewerage project management, urban and rural sanitation, tackling industrial pollution, water use efficiency and quality improvement, ecosystem conservation and Clean Ganga Fund, among others. In order to decrease the increasing air pollution all over the country, Government of India has launched a National Clean Air Programme in 2019. Entrepreneurs have a very important role for Sustainable Development of an economy. Protection of environment and resources to a large extent is possible if entrepreneurs while doing productive activities make some changes in their activities keeping in mind environmental issues and safety of future generations. The primary steps in tackling this issue is to 'Go Green'. Concept of Green Entrepreneurship has gained importance since last two decades. It will not only help in efficient utilization of resources but also save the

resources for future generation. This paper provides a theoretical framework of green entrepreneurship as a tool of sustainable development in India, and also evaluate researches conducted in this vital area.

KEY WORDS

Resources, Environment, Sustainable Development, Green Entrepreneurship.

INTRODUCTION

One of the main features in developed countries all over the world is higher level of industrialization. Productivity of such countries is high which resulted in high economic growth. Since independence industrialization has been primary focus of Government of India for economic growth in the long run. For this purpose Government of India made Industrial Policy Resolution (IPR) in 1956. The main objective of IPR 1956 was Rapid Industrial Development. Resources were targeted to be utilized fully, income was generated by selling the produce, employment increased, standard of living improved. Entrepreneurial activities have helped in economic growth of India. Business enterprises who carry out the production activity are more likely to affect the environment. They extract the resources which result in depletion of resources as they are finite, create air pollution from gas emissions and CO₂, water pollution as it carry chemicals used for production, and emit huge volume of waste like fertilizer residue, food waste, plastics, chemicals etc. These not only damage the environment but are also hazardous for the workers and people living in the area. It also created imbalance in ecosystem, climate change global warming etc. Due to environmental concerns such as global warming, climate change, increase in population, and to protect resources for future generations, scientists all over the world were concerned about the development at the cost of environment and the society. The study conducted by World Commission for the Environment and Development prepared a report commonly known as 'Brundtland Report' (1987). The report mentioned guiding principles for sustainable development. According to this report "Sustainable Development is development that meet the needs of the present without compromising the ability of future generations to meet their own needs." Since then sustainable development has been a matter of concern for countries throughout the world. Sustainable development can be achieved with the collective efforts of all countries. According to Elkington (1998) "Pressure is growing from Governments and their citizens for business to measure and manage the impacts and outcomes of its behavior in a range of areas. The demand has led to triple bottom line to reflect economic, social and environmental performance". United Nations in its The Sustainable Development Goals (SDGs), also known as the Global Goals, were adopted by the United Nations in 2015 as a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity. In India, for sustainable development Government have made various schemes and programs. Sustainable development needs much more, it is not only the responsibility of the Government but also of business enterprises to undertake activities or produce such products which do not harm the environment and society at large. Their creativity should not be confined not only to doing something new or different but also towards doing activities in eco-friendly way. Due to environmental and societal concerns concept of 'Green Entrepreneurship' was developed first by Berle (1993) who emphasized the importance of business opportunities that can save the world and make you money. Berle's book provides good ideas and helpful references on contemporary business concerns regarding waste management, energy conservation and efficient use of materials. Consumer's awareness towards environment friendly products have motivated people towards green entrepreneurship.

Objectives of the Paper

The objective of this paper is :

1. To explain relevance of green entrepreneurship.

2. To present an analysis of research published by Aspen Network of Development Entrepreneurs on support system available to green entrepreneurs in India.

Concept of Green Entrepreneurship

There is no single definition of green entrepreneurship. Some authors interchangeably use the term 'ecopreneurship', 'eco-entrepreneurship', 'environmental entrepreneurship'. Schuyler (1998) in his book defines the term as "Ecopreneurs are entrepreneurs whose business efforts are not only driven by profit, but also by a concern for the environment. Ecopreneurship, also known as environmental entrepreneurship and eco-capitalism, is becoming more widespread as a new market-based approach to identifying opportunities for improving environmental quality and capitalizing upon them in the private sector for profit." Green entrepreneurship is a process whereby business is undertaken in such a manner that an entrepreneur achieve the goal of profit maximization and do not harm the environment and the society at large.

Review of Literature

Many studies have been conducted by researchers in the area of impact of green entrepreneurs on firms, economy, environment and its contribution towards sustainable development. Some studies have been reviewed herein.

Neumann (2022) conducted a research to find out relationships between national shares of green entrepreneurial activity (GEA) and economic, social and environmental development. "The results confirmed that higher shares of GEA are positively related to economic and social development but not to environmental development. Additional tests proved the robustness of the results for different economic development levels, time-lag variations and different measurements of dependent and independent variables. The identified economic and social importance of GEA warrants intensified policy efforts to support the discovery, creation and exploitation of green business opportunities".

Yin, Salmador, Li and Lloria (2021) to find the effect of green entrepreneurship on firms. "They found green utility-model innovation positively influences firm performance for SMEs, whereas green invention innovation does not contribute to firm performance overall. More interesting, our empirical results suggest that older firms benefit more from both green invention innovation and green utility-model innovation than younger firms. This research contributes to the literature on green entrepreneurship as well as green innovation".

Nuringsih (2021) conducted a research to find out the linkage of green value, GE, and sustainable development, 180 students in Jakarta were involved as respondents resulting in significant impacts. The research "finds a mediating effect of GE which links green value to sustainable development at the level of 5 percent. It forms a green triangle approach in promoting sustainability education for university students so that this linkage signs a good perception of students in expressing green value toward GE and sustainability issues. It is an early stage in promoting the triple bottom line so that the learning system could collaborate with stakeholders for enhancing the sustainability system in entrepreneurial education."

Relevance of Green Entrepreneurship

Green entrepreneurship is an effective way to achieve the objective of sustainable development. Although the term sounds to be for environment and social cause but entrepreneurs driven by profit cannot undermine its benefit. Relevance of green entrepreneurship as a whole can be understood from the following points:

1. **Creative Solutions:** An entrepreneur, to be successful must come up with new and innovative ideas for society's problem. Green entrepreneurship has widened the scope by giving direction to their creativity. A person can think of innovative idea by analyzing the resources available, the effect on environment and society and to carry out activities efficiently and effectively. Creative idea of entrepreneur is studied from various aspects such as industry, product, technical, financial, organizational, and environmental aspects etc. because the product, resource requirement, technology requirement, environmental parameters, and market feasibility of product of green entrepreneur is different from that

- of conventional entrepreneur. If the idea is feasible then the project is implemented. In this way a green entrepreneur not only have clear understanding of his idea but it will also help in minimizing the risk of entrepreneurship.
- 2. Protection of Environment:** In manufacturing companies waste in the form of solid, liquid and gas such as chemicals, ashes, industrial effluent, carbon dioxide, sulphur dioxide, trash, oils, solvents, dirt and gravel, other harmful gases may occur. These are dumped in seas, rivers or land without adequate treatment. Due to this there is air pollution and water pollution. The use of sustainable materials to manufacture a product, using renewable resources, efficient utilization of finite resources like water and energy, cutting carbon emissions are some common methods by which environment is protected. Many industries now a days are managing industrial waste by way of segregation, recycling, composting, use of landfills, combustion, waste avoidance etc.
 - 3. Increase Goodwill:** Value of goodwill of the firm depends on many factors. One of the factor affecting goodwill is quality of the product. Due to innovation and better processes green entrepreneurs produce good quality products. Green entrepreneurs creates positive impact on consumer behavior as people prefer to purchase environment friendly products. People now prefer organic products made from natural and fresh ingredients. Green entrepreneurs not only are able to retain old customers but also attract new customers. Such companies have good reputation as people consider them socially responsible companies.
 - 4. Increased Savings:** Green entrepreneurs use innovative technology such as energy efficient devices, water saving techniques, recycled waste, solar devices, renewable resources etc. This helps in reducing the costs and more savings. The more they save the greater they are able to meet their working capital requirement.
 - 5. Increase Profits:** A company can increase profit by reducing costs, increasing productivity, increasing efficiency and by increasing turnover. Green entrepreneurs use cost effective ways of doing activities. This helps in reduction of costs and improve efficiency. Demand for product of green companies is high and consumers are ready to pay more for ecofriendly products, this results in higher profit for green entrepreneurs.
 - 6. Create Employment and Remove Poverty:** Green entrepreneurship helps in creating employment opportunities. Many researches are being conducted to produce environment friendly products. People are coming up with new ideas to set up their businesses, this helps in generating employment not only for themselves but for others also.

From the above points we can say that green entrepreneurship not only take care of environment and society issues but also helps in economic growth of a country. Increased savings, increased profit, generation of employment, removal of poverty, all these benefits helps in creation of wealth which improves standard of living of the people. Large demand for the products also lead to increase in production which is beneficial not only for the owner but also help in economic growth.

For sustainable development Government of India in the year 2001 formed The Indian Green Building Council (IGBC), part of the Confederation of Indian Industry (CII). The vision of the council is, "To enable a sustainable built environment for all and facilitate India to be one of the global leaders in the sustainable built environment by 2025". The council offers a wide array of services which include developing new green building rating programmes, certification services and green building training programmes. The council also organises Green Building Congress, its annual flagship event on green buildings.

Support System for Green Entrepreneurs in India

This analysis is based on the research conducted by Saini, Salla, Kim and Almaguer (2023). They collected data from 140 organisations that lend support to green entrepreneurs in India by offering programmes, initiatives, research, or investment targeted to green entrepreneurship. They characterized their findings as follows:

Percentage of organisations that support green entrepreneurship, N=140

Exclusive support	40%
Non-exclusive support	59%

(Source: Primary Data)

Headquarters of support organisations, N=137

Headquarters within country	70%
Headquarters outside country	30%

(Source: Primary Data)

Percentage of lending support by Organisation type, N=137

Support Organisations	Headquarter within India	Headquarter outside India
Investors	25%	15%
Foundation	8%	4%
Capacity Development Provider	9%	2%
Research or advisory service provider	7%	1%
Government agency	6%	1%
Sector association	4%	1%
Development finance institution or donor agency	-	5%
Bank or financial institution	4%	-
Media organization	1%	-
Academic institution	1%	-
Corporation or corporate foundation	1%	-
Other	3%	1%

(Source: Primary Data)

Investors make up the largest portion of support organisations, followed by foundations, capacity development providers, and research and advisory service providers. Government agencies, banks or financial institutions, and development finance institutions (DFIs) or donor agencies rank relatively low in their presence in the ecosystem.

Percentage of organisations by target green sectors, N=134

Renewable energy	65%
Sustainable agriculture & aquaculture	61%
Waste management and circular economy	52%
Energy efficiency and storage	51%
Sustainable transportation	40%
Water management	39%
Cleaner fuels	31%
Green buildings	31%
Sustainable forestry	27%
Tools for climate assessment	22%
Ecotourism	11%
Disaster management	10%

(Source: Primary Data)

More than half of identified organisations focus their support on two or more green sectors. Renewable energy and sustainable agriculture and aquaculture are the most common sectors of focus, followed closely by waste management and the circular economy and energy efficiency and storage. Ecotourism and disaster

management receive the least support from support organisations. Ecotourism is in its nascent stages in the economy, with limited entrepreneurial activities. On the other hand, the Government takes the lead in disaster management, as the sector requires large-scale projects with nationwide or statewide interventions.

Percent of organization by target stage, N = 126

Idea	16%
Start-Up	42%
Early	62%
Growth	48%
Mature	21%

(Source: Primary Data)

Support organisations most commonly focus on entrepreneurs in the early stage, followed by the growth and start-up stages.

Percent of organisations that target entrepreneurs from underrepresented backgrounds N=47

Women	94%
Rural	66%
Poor	51%
Minorities	32%
Youth	32%
Disabled	19%
Refugee	15%

(Source: Primary Data)

About 65% of identified support organisations do not specifically or intentionally target any underrepresented population in the green entrepreneurial ecosystem. For the organisations that do consciously target and recruit entrepreneurs from underrepresented backgrounds, women entrepreneurs are prioritised most often, followed by entrepreneurs in rural/periphery areas and those living below the poverty line.

Percent of organisations that offer financial support vs. non-financial support, N=50

Non-financial support providers, 78%, Non-financial support is most commonly delivered in the form of event hosting (52%), research on the sector (49%), and providing technical assistance (44%). Other non-financial support services, such as running news/media outlets, managing an incubator or providing a co-working space, running accelerator programmes, and offering fellowships, are far less available in the ecosystem.

Financial support providers, 68%, Nearly 70% of organisations identified in this study lend financial support to the green entrepreneurial ecosystem. Two-thirds make direct investments in entrepreneurs, while the remainder fund other support organisations, invest in funds, or manage a crowd funding platform, in that order.

In spite of many attempts made by Governments and different agencies, there is still scope to make improvements in green entrepreneurship in India. Many young entrepreneurs are willing to pursue sustainable development as one of their business objectives. Government of India has introduced many schemes to promote green entrepreneurship such as Start up India Scheme, Mudra Yojana Scheme, Stand up India Scheme, Atal Innovation Mission, Elect Developmental Fund, Pradhan Mantri Mudra Loan Yojana. Nevertheless, these schemes are insufficient for promotion of green businesses on a larger scale. In India, there are many organisations supporting green entrepreneurship but Government support to green entrepreneurs is relatively low. The Government can work on many aspects. Support to green entrepreneurs at idea generation stage is necessary to ease the process of green entrepreneurship. Very few organisations are providing support at this stage. Green entrepreneurs require funds, managerial and technical expertise, legal awareness, and other informational sources to form a green enterprise. Government should frame policies in such a manner that it is easier to set up green businesses. They should also provide incentives such as subsidies on natural

resources, easy access to technology and infrastructural developments to aid the green entrepreneurs. Government should also assist them in marketing their products. People must be enlightened about eco-friendly products and its role in environmental sustainability.

CONCLUSION

All countries are committed to Sustainable Development Goals as a global demand for sustainable development. Various academic research conducted by researchers on sustainable development have recognised the relevance of green entrepreneurship. Benefits include not only protecting the environment and the society but also help in increasing the efficiency of own firm. Greening of business can occur at any level while carrying out the activities of the business. In India many industries have adopted techniques to dispose off waste by way of segregation, recycling, composting, use of landfills, combustion, waste avoidance etc. Many new firms with sustainable business ideas in various sectors have also been formed. The paper analyzed the research conducted by ANDE which provide detailed data about support system available to small and growing business. Although support is being provided to these businesses from private and public organisations but it require some more effort on the part of Government by making strategies to encourage green entrepreneurship. Many small and growing green business are facing problem because they are implementing an innovative idea, therefore, risk factor is high in such businesses. This require proper support and guidance. More researches can be conducted to find out the requirement of entrepreneurs whether existing or new to be a successful green entrepreneur. Support system should be such that more and more entrepreneurs opt to go green.

REFERENCES

1. Berle, G. (1993) "The Green Entrepreneur: Business Opportunities That Can Save the Earth and Make You Money", United States : N p <https://www.osti.gov/biblio/6859183>
2. Bundtland Report of the World Commission on Environment and Development (1987), "Our Common Future", United Nations, Retrieved from <https://www.are.admin.ch>
3. Elkington, J. (1998) "Accounting for the Triple Bottom Line", *Measuring Business Excellence*, Vol.2, No.3, pp 18-22. <https://doi.org/10.1108/eb025539>
4. Indian Green Building Council (IGBC), (2001) Retrieved from <https://igbc.in/igbc/>
5. Neumann, Thomas. "The Impact of Green Entrepreneurship on Sustainable Development: An Ex-post Empirical Analysis", *Journal of Cleaner Production*, Volume 377, <https://www.sciencedirect.com>, <https://doi.org/10.1016/j.jclepro.2022.134317>
6. Nuringasih, Kartika., (2021) "Role of Green Entrepreneurship in Raising the Effect of Green Value Toward Sustainable Development", *International Journal Economics Business and Entrepreneurship* , Vol.3(2) , pp.229-46, 10.23960/ijebe.v3i2.69
7. Saini, A., Salla, S., Kim, S., Almaguer, F., (2023) "Entrepreneurial Ecosystem Snapshot: Green Entrepreneurship in India", ASPEN Network of Development Entrepreneurs, <https://andeglobal.org>
8. Schuyler, Gwyer. (1998), "Merging Economic and Environmental Concerns Through Ecopreneurship", Digest Number 98-8, <https://eric.ed.gov>
9. United Nations Development Programme, (2015) "Sustainable Development Goals", Retrieved from <https://www.undp.org>
10. Yin, Chenli., Salmador, Maria Paz., Li, Dan., Lloria, M.B., (2021) "Green Entrepreneurship and SME Performance: The Moderating Effect of Firm Age", *International Entrepreneurship and Management Journal*, 10.1007/s11365-021-00757-3
