

# **GREEN ENTREPRENEURSHIP: THE EMERGING PARADIGM FOR SUSTAINABLE DEVELOPMENT**

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## **Abstract**

Environmental sustainability has become an indispensable aspect of economic development in recent times. Further, it is seen as the responsibility of the entrepreneurs to adopt environment friendly production practices to achieve sustainable development. Therefore, green entrepreneurship has acquired special importance. In other words, green entrepreneurship has emerged as a response to the challenge of attaining compatibility between economic prosperity and environmental protection. It is the practice of using entrepreneurial ideas which have a positive effect on the environment and at the same time are financially sustainable. Green entrepreneurs have high sensitivity towards environmental problems. Common practices of green entrepreneurs include minimum of plastics, using recyclable packaging materials and recyclable papers etc. Green entrepreneurship has further two perspectives. The first perspective relates to the final output which is in the form of goods and services. The second perspective relates to the production process or technique of an economic activity. A systemic approach towards green entrepreneurship includes raising awareness amongst entrepreneurs about opportunities arising from environmentally friendly business models and supporting new entrepreneurs through financial and technical support schemes. Changing consumer behavior towards green market is another significant and positive indicator for the green entrepreneurs. Green entrepreneurship can pave a promising pathway for production if it is given proper government assiduity and is reinforced by positive incentives. The present paper focuses on the conceptualization and importance of green entrepreneurship and on the different aspects related to the same. It also analyses the output and production technique aspects related to green entrepreneurship.

## **Key words:**

Green entrepreneurship, sustainable development, innovation, environment

## **Introduction**

A paradigm shift in the economy towards a clean technological mission is a major force behind the call for sustainable development. The governments of the developed countries focus much more now than ever on the environmental issues, applying higher requirements concerning pollution and waste management. Further, entrepreneurship is considered to be the moving force of the economy, assuring economic growth, technological and organizational innovations and new workplaces. Therefore, it can be easily inferred that sustainable development cannot be achieved unless the entrepreneurs adopt environment friendly practices. The contribution of entrepreneurs towards environment conserving production activities has to be immense if any country seeks to achieve sustainable development. This fact has given rise to the idea of “green entrepreneurship”, which is slowly entering all aspects of entrepreneurship and is a major concern for entrepreneurs as far as their productive activities are concerned. Green entrepreneurship is represented by different terminologies namely, eco entrepreneurship, ecopreneurship, sustainable entrepreneurship, ecological entrepreneurship and so on. Green business orientation is gaining momentum especially due to increasing demand for quality life, sustainable development and rise in the velocity of adversities happening all over the world in the form of natural and man-made catastrophes.

The idea of green business emerged at the close of 20th century by embracing on green spectrum of business operations. The concept of green entrepreneurship first and foremost originated in developed countries like Australia and Europe soon after advancing to US. Green entrepreneurial practices began in the 1970s and its popularity increased substantially from 1990s onwards. During early 1990s, there was immense progress in business opportunities pooled with emerging alternative lifestyle choices, enactment of new legislations and recognition of competitive edge in eco friendly business agenda. The period witnessed promotion of new businesses, especially, green micro oriented start-ups to create more sustainable business models. The green economy became a UNEP agenda since the United Nations Conference on Sustainable Development (Rio +20) held in June 2012. An added dimension to this is that consumers are becoming more and more responsible towards environment and society. Therefore, they also prefer green products over conventional products. A study from 2015 says that 73% of the consumers across 60 countries are willing to pay more for sustainable products. As a result of the growing base of eco-consumers, entrepreneurs have felt the need to innovate and redesign their products with a green perspective.

### **Objectives**

Having conceptualized the term “green entrepreneurship”, the objectives of the paper are outlined as under:

1. To conceptualize the term “green entrepreneurship”
2. To examine the importance of green entrepreneurship
3. To analyze the output and production technique aspects related to green entrepreneurship.

### **Conceptualization of green entrepreneurship: Defining green production practices**

“Green entrepreneurship” is the practice of addressing an environmental need through the realization of entrepreneurial ideas, which have a net positive effect on the natural environment and at the same time, is financially sustainable.”This effect could be a result of the following: Offering products or services the consumption of which leads to a change in the consumer’s behavior, reducing the negative effect on the environment by adopting environment friendly practices, equalizing the ecological and economic goals of the company, introducing innovative ecological solutions to problems connected with production and consumption of products and services, developing business models which lead to a sustainable economic development. Finding business solutions for addressing environmental challenges push green entrepreneurs to think differently and to innovate. When successful, the green entrepreneur is rewarded for his/her efforts, since eco-innovation brings added value to the business activity by accessing new and expanding markets and increasing profitability along the value chain. More so, innovation has a strong role as far as green entrepreneurship is concerned. It takes innovation a step further by creating value for customers and other stakeholders. In short, if sustainability is the green entrepreneurs’ end, innovation is their means.

### **Importance of green entrepreneurship: Multidimensional gains for producers, consumer and economy**

Green entrepreneurs provide the hotbed for starting and sustaining a green economy by providing green products and services, introducing greener production techniques, boosting demand for green products and services, and creating green jobs. There are multiple ways in which business can stand to gain from going green. From tax rebates to pricing incentives and from various public bodies and environmental organizations to increased interest from consumers, a green reputation for business can be financially rewarding. A significant economic benefit of going green is that it helps lower costs and save money. Use of renewable energy helps reduce energy consumption which

in turn helps save money used on electricity bills. Implementing strategies such as recycling and going paperless will also save on supply costs.

Other factors that can motivate for green entrepreneurship include: growing awareness and demand for organic products amongst consumers, providing sustainable solution to ecological perils and prevention of further degradation, availability of low- cost technological solutions to optimize cost in green ventures, profitability of green products etc. Also, culturally and historically, India is positively predisposed towards ancient sciences of natural products. Increasing pesticides, pollution and contamination in everyday consumable products have shifted consumer preference towards natural ingredients and manufacturing. Green ventures also offer product differentiation and scope for brand building as a source for competitive advantage. However, a green supply chain and quick action in terms of clearances and approvals are important drivers for developing an enabling environment to nurture entrepreneurial spirit in this sector.

#### **Process and product of green entrepreneurship: An analysis across the globe**

**Process level:** It concerns any innovation that occurs in production processes, normally resulting in production methods that have a little or no environmental pollution. It includes adoption of those production practices that have least detrimental impact on the environment and are thus beneficial than the normal production practices. These practices might lead to increase in production efficiency and not necessarily affect product characteristics. This type of production process involves four strategies: methods of growing, harvesting, or extracting new raw materials in such a manner that energy is conserved and few or no artificial chemicals are introduced into the process, methods of reusing materials to minimize waste and, indirectly, to save energy and schemes for processing production wastes back into the process or into secondary uses. Practices such as efficient car-manufacturing in order to reduce material consumption and waste during production, the design for disassembly of cars, so their components can be recycled and reused, are examples of cleaner production processes.

**Product level:** A green product is a sustainable product designed to minimize its environmental impacts during its whole life-cycle and even after it's of no use. Green products are usually identified by having two basic goals: reducing waste and maximizing resource efficiency. They are manufactured using toxic-free ingredients and environmentally-friendly procedures. It means when the product produced through green entrepreneurship incorporates beneficial effects for the consumers and incorporates the positive effects of green production practices. There are several examples from across the world which relate to green products. Electric cars produced by Tesla had highly efficient electric motors which run on clean energy. Eco-friendly dishwasher reduces the usage of

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energy and water to half the amount required for normal dishwasher. This green product uses less than 240 kWh per year and less than 3.2 gallons per cycle which not only benefits the environment but also helps the consumers save a lot. “Recover Brands” produces clothing that’s made entirely out of recycled material. “Allbirds” created an innovative wool fabric made specifically for footwear. “Onya’s” reusable coffee cups are made out of 100% food safe silicone. “Who Gives a Crap” makes toilet paper out of 100% recycled paper fibers, bamboo or sugarcane. This saves water, trees, and reduces carbon emissions. Table linen collection from “Viva Terra” is handmade in India by artisans who carefully collect pieces of vintage and upcycled fabrics to create elaborate patterns and colors. Each piece is different from the next because they are each hand sewn from the scraps leftover during the process of hand making Indian saris. “Green Line” Paper Company has done a great job creating products from recycled materials. Their multipurpose paper is recycled from paper itself, helping preserve those trees’ value for a little longer. “Rex” makes eco friendly composite decks that are made from 95% recycled wood and plastic film. They also use earth-friendly manufacturing processes, like reclaiming factory waste and eliminating the use of harmful chemicals.

Certification is an important dimension of green products. There are several certifications that are famous world-wide and can be taken as a mark of assurance that the products are environment friendly and have been produced through green entrepreneurial practices. Some of these marks and certifications are:

**Energy Star (EPA)** was started in 1992 and is related to various electronic gadgets, buildings etc. Energy star is a certification that aims at reducing energy consumption and emission of greenhouse gases thereby reducing the over usage of non-renewable resources and protecting the environment. It identifies and labels the products, buildings and electronic appliances with high energy efficiency.

**Forest Stewardship Council (FSC)** was launched in 1993 and relates to forest and forest products. It aims at the management of the world’s forest and labels and certifies the products as eco-friendly. The management aims at keeping the air and water clean and reduces the drastic change of environment due to pollution. Their logo indicates that the forest product has come from some economically viable, environmentally suitable and socially helpful sources.

**Green Seal** was started in 1989 and is applicable for cleaning products, hotels, household products, paints and many more. The green seal founder focuses on reducing the harmful effect of raw materials extraction, production, use and reuse of disposed of wastes. Before issuing the certificate, the organization goes through a certain evaluation process that

includes reviewing of data, labeling, marketing advertising material and onsite examination.

**USDA Organic** was launched in 2002 and relates to food and agricultural products. It aims at the production of 100% organic crops and avoids fraud. They prohibit the use of synthetic chemicals and genetically modified seeds. To guarantee pure products, they strictly maintain a separation between non-organic and organic products and undergo onsite inspection at regular intervals.

**Electronic Product Environmental Assessment Tool (EPEAT)** was launched in 2005 and is applicable for electronic products. EPEAT certification helps the consumers to evaluate the environmental effect of an electronic device. Depending upon the environmental performance, the products are rated as gold, silver or bronze.

Some of the initiatives in India for green entrepreneurship are as under:

- Green Drops India: Engaged in vertical gardening on walls of the buildings.
- Danteshwari herbal products: Engaged in organic farming and won the “Earth hero” award from Royal Bank of Scotland.
- Damji Prajapati: Making nest for birds made of clay, which can be fixed. Got many projects from the real estate sectors.
- MINC retail store: Eco friendly fashion store.
- Green oil: Production of renewable energy and organic manure from waste material.
- Chalk and Chukles: Manufacturing of toys without use of plastic and chemical based paints.
- Go Green BOV: Electric bikes
- Biotec Bags: Biodegradable plastic bags
- Uravu, Kerala: Making of houses and handicrafts of bamboo.
- Mazhapolima: Techniques of water harvesting
- The Tree House Resort: Providing natural habitat to exotic birds
- Mitti cool clay products: Fridge made of clay
- Krya consumer products: Chemical free detergent

## **Conclusion**

“Green entrepreneurship” could be defined as a new type of commerce which is equally profit- and nature-oriented, and might possibly solve ecological problems throughout its business activity. It is nothing short of a movement and a viable solution to various issues. The green economy can be perceived as an engine of growth; it is built on an

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innovative system of economic activities that enhance social well-being, nurture flourishing natural environments and yield competitive yet responsible business growth. Stimulating transformation, the green economy encourages and facilitates progress towards the three pillars of sustainable development; people, planet and profit. More than 60 countries around the world have started the journey towards the green economy, with many seeking to achieve their ambitions within a few decades. Governments pioneering this transition are doing away with the traditional line of thought that there is an inevitable trade-off between economic progress and environmental sustainability, instead showing significant opportunity for investment, growth and security. Green entrepreneurship has significant dimensions in terms of process innovation and green products. The emerging venture of green entrepreneurship is not only beneficial for the entrepreneurs but for the consumers as well. The producers receive tax benefits and other incentives while the consumers receive healthier and more natural products. Notwithstanding the fact that there has been emergence of a number of green entrepreneurship ventures at the international and national level, it is the need of the hour that these ventures are promoted by government and taken care of by the producers. Training staff to work in the field of eco-entrepreneurship, as well as finding ecologically engaged people who have developed a plan for solving an environmental issue, is the key strategy for the success of the “green” idea. Consumers can contribute towards green entrepreneurship by showing greater demand for green products and providing a conducive demand horizon to the green entrepreneurs.

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