

A STUDY ON ENVIRONMENTALLY SUSTAINABLE START-UP MODELS THAT BOOST INDIA'S ECONOMY

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Abstract

India is a country with a population of over 1.3 billion people. It has a mixed economy, which means that it has both private and public sector enterprises. Economic development in India has been strong in recent decades, with the country experiencing significant growth in its gross domestic product (GDP) and a reduction in poverty rates. There are several factors that have contributed to economic development in India. One of the main drivers of growth has been the country's large and growing workforce, which is relatively young and well-educated. This has attracted foreign investment, as well as helped to stimulate domestic consumption and investment. In addition, India has made significant progress in areas such as infrastructure development, including the construction of roads, ports, and airports, which has improved connectivity and facilitated trade and commerce.

However, despite the progress that has been made, there are still challenges to economic development in India which include pollution which is India's huge problem and the government spends millions of rupees to control the pollution and now it is time to move towards environmentally sustainable products and yes, the government is promoting it and Sustainable development is a way of improving the quality of life for present and future generations by balancing economic, social, and environmental goals.

The government is trying to improvise the activities which can improve the sustainable development in the country, there are many Indian businesses that are sustainable in nature and are making efforts to minimize their environmental impact and contribute to the long-term sustainability of the planet. Some examples of leading businesses trying to promote environmental sustainability in India include Tata Power Solar, Organic India, Biocon, Mahindra & Mahindra, Godrej Industries, etc.

There are several ways in which environmentally sustainable businesses can boost a country's economy:

1. **Creates new jobs and industries:** Implementing sustainable development initiatives can create new job opportunities in fields such as renewable energy, sustainable agriculture, and eco-tourism.
2. **Improves resource efficiency:** By using resources more efficiently, a country can reduce waste and lower costs, which can lead to increased competitiveness and profitability.
3. **Attracts investment:** Sustainability can be a key factor in attracting investment from businesses and investors who are looking to support companies that are working towards a more sustainable future.
4. **Enhances reputation:** A country that is seen as a leader in sustainable development may be more attractive to tourists, businesses, and investors, which can help to boost its economy.
5. **Reduces costs:** Sustainable development initiatives can help to reduce costs by reducing the need for resource inputs and by minimizing waste and pollution. This can lead to lower costs for businesses and increased competitiveness.

Overall, sustainable development can help to create a more stable and resilient economy that is better equipped to withstand challenges and take advantage of opportunities in the long term, my research has found the above mentioned benefits of environmentally sustainable businesses in new sustainable start-up models.

Keywords: Environment, Sustainable businesses, Start-up

[I] NEED FOR THE STUDY

India is a country which has many economic problems which include unemployment in such a state there has come up new beginning in the country that is "START-UP" where people created their own employment and were called Entrepreneurs. In India we have parallel growth of pollution along with the development of nation, how are young Entrepreneurs trying to control the pollution through their business models, examples of such business models, to know how did they emerge, how are their start-ups contribution to reduce pollution.

[II] REVIEW OF LITERATURE

Mohammad Razib Hossain, Soumen Rej, Ashar Awan, Arunava Bandyopadhyay, Narasingha Das

This paper studied the conditions of last few decades, this told economists have been showing a keen curiosity about the link between economic growth and environmental dilapidation under the moderating role of natural resources rent specifically in both resource-rich and resource-poor economies. the concept of the

Environmental Kuznets Curve (EKC), this study considers the resource richness of India while examining the consequences of natural resource rent (NRR), GDP, and the interaction of NRR and GDP on environmental degradation controlling urbanization and energy use. data from 1970 to 2018 and applied dynamic autoregressive distributed lag (DARDL) simulation and frequency domain causality (FDC) approach. The baseline model reveals that economic activities have heterogeneous yet significant impacts on environmental quality, and we validate the existence of an “N-shaped” EKC hypothesis in India in the presence of CO₂ emission as the dependent variable.

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The business model concept has become very prominent over the past 15 years in both research and practice the concept itself is of increasing importance for practitioners dealing with more competitive, complex and fast moving business environments researchers dealing with sustainable development in general, and corporate sustainability, researchers dealing with sustainable development in general, corporate social responsibility or sustainable design in particular, started to explore whether and how the business model concept can be used to investigate business-based solutions for ecological and social problems. Practitioners are increasingly interested in the manifold forms these solutions can take, ranging from business models for new technologies and social innovations to hybrid and non-profit organisations and how their development can be Supported. SBMs can follow to contribute to solving ecological, social and economic Problems.

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The notion of “green business” emerged at the end of the 20th century in the wake of the ever-increasing public concern about the sustainability of economic development. The latter, in turn, was roused up by the growing awareness of environmental issues such as the accelerating depletion of natural resources and the deterioration of environmental quality. The Business Dictionary indicates that green business is “a business functioning in a capacity where no negative impact is made on the local or global environment, the community, or the economy”, and further adds that “green business will also engage in forward-thinking policies for environmental concerns and policies affecting human rights” . It has distinguished three main agents of the business process: consumers, governments, and business itself. The research also has defined a green consumer is, government role and businesses going green. It has also mentioned that a business can reap two types of benefits by “going green”: one is revenue rising, and the other is cost saving.

Mihalj BAKATOR, Dejan ĐORĐEVIĆ, Mile TERZIOVSKI, Dragan ČOČKALO, Cariša BEŠIĆ

The paper has begun with the explanation of impact of COVID 19 on GDP's, in such a Pandemic how the technologies supported, In the modern economy, young people are the bearers of new tendencies and the development of knowledge. Entrepreneurship and youth entrepreneurship can positively affect economic development. It reduces unemployment rates, increases the standard of living, and supports economic growth. In this paper, a youth entrepreneurship model for sustainable business growth is developed. Its goal was to identify influencing factors on youth entrepreneurship development and sustainable business. The findings indicate that youth entrepreneurship is influenced by a wide array of factors, most notably age, close social environment, attitudes, and awareness of incentive means. Furthermore, the developed model provides a significant insight into what major factors and sub-factors can affect youth entrepreneurship and sustainable business. It can be concluded that entrepreneurial education, a stimulating environment, and an entrepreneurial economy can significantly influence youth entrepreneurship and sustainable business growth.

Linda Bergset, Klaus Fichter

For a transition towards a green economy radical innovation plays a central role. Start-ups are key market actors in the development and market introduction of radical sustainable innovation, but so far there is little research on the specific challenges and opportunities of green start-ups. It had a review of literature in Sustainable innovation, entrepreneurship and Green start-ups and their specific characteristics and challenges in raising finance, Typologies in sustainable entrepreneurship research. This review concluded that there is a need for a new typology of green start-ups which is suitable to properly analyse and explain the financial challenges and opportunities of green start-ups. It has mentioned Overview of characteristics of Green start-ups in relevance to finance, entrepreneurial and Strategy. This concluded that there are 5 types of green start-ups, which are the alternative start-up, The visionary start-up, The inventive start-up, The ecopreneur start-up and the unintentionally green start-up. This paper included why and how different types of green start-ups

may have additional challenges and some new opportunities in terms of access and usage of finance to fund their early activities.

[III] OBJECTIVE OF THE STUDY

1. To know the environmentally sustainable start-ups in India.
2. To study how the Start-ups are contributing towards environmental sustainability and AatmaNirbha.

[IV] THE ENVIRONMENTALLY SUSTAINABLE START-UP IN INDIA

India's young generation is developing businesses which are sustainable in nature and looking at their products and performances we get awaked. These include

(a) PHOOL

Phool was founded in 2017 and owned by Kanpur Flowercycling Pvt. Ltd. The company is engaged in collecting temple flower waste dumped in rivers across India. Once collected, they use these flowers to make incense sticks and other such biodegradable products. It is employing many people from rural India and controlling water pollution through collecting flowers and leaves thrown in water bodies. This start-up is also funded by Indian Actress Aliabhat. This company has a revenue of \$15 million (approx.)

(b) RECHARKHA

Pune-based social enterprise Recherche is upcycling plastic waste into bags, table mats, home decor items and other products, while also reviving artistic skills. To date, they have upcycled 7 lakh plastic packets and have clocked in a revenue of Rs 70 lakhs. They employ local waste pickers and tribals from Dadra Nagar Haveli. It claims that 70 per cent of its workforce comprises women. This start-up as it is collecting non decomposable plastic covers and converting them into a useful product is definitely showing a good impact on the environment by reducing the soil pollution, this also reduces blockage in the drainage system. In the initial years the company had 40 lakh profit and now in 2022 the company is having 1crore (approx) profits.

(c) BECO

Beco The Mumbai-based start-up is a sustainable kitchen, home and personal care brand. It sells a wide range of products including tissue rolls, bamboo facial tissues, dishwashing liquid, toothbrushes, and biodegradable garbage bags, among others. It claims that all its products are biodegradable and combustible. This company also delivers products in different nations. The company's valuation is around 1.2 crore.

(d) ECOIL

ECOIL collects used cooking oils and fats from restaurants and pays them the best price. Then it converts those oils into bio-diesel. The company provides a wide-array of services to help factories manage their waste oils and fats. With tailor-made packages to Supermarkets and Fast-Food Outlets, ECOIL tries to eliminate any potential issues of dealing with waste. The waste cooking oil is usually thrown out which creates a blockage in the drainage systems, but through the idea of ECOIL that problem is being solved. This company had invested 30 lakh and now the company's valuation is 40 Crore. We can see the huge profitable change in the company.

(e) CHAMAR

A designer boutique which melds business with sustainability and Dalit pride. The studio's artisans give a new lease of life to discarded rubber and other waste by recycling these as bags, belts, shoes and jackets. This studio hires cobblers who are discriminated being called "CHAMAR" and people from slum and train them with the work, this is employing more than 300 members and sales the products in different nations through different sites. The greatest thing is he made a brand out of his community and created confidence in people of his community. This company is having more than 70 lakh turnover.

(f) CARBON CRAFT

This start-up is potentially a game-changer for the environment, Carbon Craft Design, a Mumbai-based design and material start-up is harnessing air pollution to make carbon tiles. This innovation is relevant because it is a small step towards introducing an alternative in the construction industry that accounts for almost 25 to 40 per cent of the world's carbon emissions. "Each carbon tile is equivalent to cleaning 30,000 litres of air! Moreover, these tiles consume only one-fifth of the energy required to manufacture vitrified tiles. This means, instead of burning the tiles to come up with the finished product, we use a hydraulic press that helps us in manufacturing these tiles," says Tejas Sidnal, the founder of Carbon Craft Design. If these tiles are used by the country, there will be high improvement in the air quality, especially in states like Delhi, Gurugram, etc where there is high industrialisation which is the cause of fall in air quality.

(g) PAPLA

Papla uses Arecanut leaf sheaths, colloquially known as Papla, are also environmentally friendly, biodegradable, and a viable alternative to plastic utensils and can reduce plastic waste enormously. Papla also creates packaging for handcrafted soaps, badges, hats, hand-fans, grow bags, and wedding invitations, in addition to dinnerware. The grow bags are produced by hand. This company makes more than 20 lakhs every year.

(h) ZOGAM BAMBOO

Zogam Bamboo the Manipur based start-up makes a variety of bamboo based products including bamboo pens, decorative pieces, bottles, pen drives, tiffin boxes and various kitchen items. The founder Ginkhanpau himself trains tribals of his region in making the bamboo products and employs them. These products can help us reduce the single use plastic wastage. Even though this company is established in 2016, this is still in its development stage as the start-up is located in a rural area and the business is completely based on tourism. This company sees around 4 lakhs profit every year.

(i) METASTABLE MATERIALS

This company is extracting copper, aluminium, cobalt, nickel, lithium, and other metals from Lithium-ion batteries and e-waste. The start-up has filed for four patents around its metal extraction technology. And is also selling the extracted metals in national and international markets.

(j) CARMESI

In India alone, about 12 billion sanitary pads are used, and discarded, each year, according to recent data from Menstrual Health Alliance India, a collaborative of organisations working on menstrual hygiene. The environmental stress that plastic-based sanitary pads causes has always been a huge concern. The start-up has created a new category in the menstrual hygiene market a luxurious, all-natural sanitary pad which decompose in the soil within 2 years, which is a great innovation. Currently this co has about 7000 frequent customers and is expected to increase more in coming days, and this definitely shows a positive sign to reduce the pollution especially caused by the plastic.

Like the above there are many more start-ups in our country which are creating new products out of the waste like recycling used clothes, recycling thrown school projects and creating articles with them, making manure, many other useful items which is appreciable, the entrepreneurs are not only reducing waste in our environment but also providing employment to many through sustainability which is a very good sign.

CONCLUSION

Many companies are small yet working well and sustaining in today's competitive business world and grabbing attention of many, these start-ups are concentrating on environmental sustainability also providing employment to many women and men who are uneducated but well skilled. The sustainable approach towards life and the adoption of eco-friendly alternatives not only helps in contributing to environmental conservation but also helps in growing the economy of the country. It also provides livelihood to the local community of these marginalized areas. The study has found that these green start-ups has made efforts to bring a change in the public to contribute towards the purchases of their products which intern help in bringing much-needed change in society and the economy. These products are being sold in different countries through e-commerce which is generating income which shows its effect on our GDP too. This is a sign that we are making products ourself which "Make in India" and we are "AatmaNirbhar"

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