



The Sustainable Enterprise Approach in India Shifts to a Low- Carbon Economy

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Abstract. Sustainability entrepreneurship will better the lives of mankind ethically, monetarily and ecologically. In the 21 st century, climate warming causes a lot of problems. Greenhouse gas emissions are an important related factor. Third-largest carbon emitter India is the third largest greenhouse gas (GHG) emitter, responsible for 31.42% of global GHGs — including emissions from agriculture and other land uses such as deforestation and burning domestic crop residue which together account for over a quarter of this share. Productivity-based acceleration can be used to reduce the largest sources of greenhouse gas emissions. In this research we believe to design a model of the internet system which converts world in low- carbon by using methods like e-vehicle delivery business models, gas-swapping fuel, use renewable energies and reutilization materials during enterprises so that preventing human from wide problem for lives. Built on a theoretical and an empirical model of opinion about innovation to reduce greenhouse gases, this research will also form part of the scope for new ideas from public interest groups, industrial circles or incubators in terms of both disclosure and guidance regarding possible future findings.

Keywords: Sustainable entrepreneurship, financial efficacy, perceived environmental concern, and a low carbon economy.

1 Introduction

Climate change means global warming from greenhouse gas emissions that is creating catastrophe for most of humanity. It worsens climate change, too; air pollution has been fingered for causing and worsening a variety of respiratory diseases. The study is conducting research on a business case for sustainability; these practices could help nations to have their transition towards low-carbon economies, which are beneficial in the health and wealth aspects. One of the top CO₂ emitters in the world (above even Europe as a whole) China is now focusing on White Paper from UK! This is a country that has given the world so many technical advances, and it is now back leading from the front in relation to "Our Future Energy: Creating a Low Carbon Economy (Moya-Clemente et al., 2020). This is a predictable business model that can also sustain the nation to go low carbon. It examines the biggest sources of greenhouse gas emissions:

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agriculture (13%), heating buildings (11%), transport, industry and all other contributions are responsible for 15%, 12% each) We believe these findings provide important insights for developing the right business model and thereby enabling not just saving costs in a long run but increasing company value.

1.1 Objectives of the study

This study's overarching goal is to help the country progress by means of a model of sustainable entrepreneurship that employs strategies and tools to reduce greenhouse gas emissions and foster a low-carbon economy. This research will encourage the next generation of thinkers and doers to develop a sustainable model for the country's economy.

2. Theoretical Background and Review of Literature

The UK has been responding to the threat of climate change by moving towards a low-carbon economy since 2008 –increasing energy efficiency and exploiting alternative sources. (UK White Paper Model). A day earlier, UK Prime Minister Boris Johnson announced a package worth more than 50 million euros intended to help the country's industrial sector adapt its operations for low-carbon production from September 23. Lord Callon, Energy Minister in the UK said that new investments fuel switching technology will also contribute to getting the nation future ready and for a better recall, right on time. ~ (Foxon et al., 2011; Gasbarro et al., 2017) Amazon partnered with car manufacturer Rivian, and committed to deploy thousands of custom-designed electric cargo vans by the end of this year. They aim to have 100,000 vehicles on US roads by 2030. An example of reusing, recycling, and extending the life of things is through-the-grapevine product use (Constanza Bianchi) Matias Gonzalez

2.1 E-delivery partner business model

The biggest social contribution might be to promote the idea of lowering fuel use as a means of controlling pollution, especially in nations such as India. A framework for long-term business success might be the creation of an e-delivery system powered entirely by electric cars for the transport of groceries, goods, and passengers. As this delivery industry is increasing quickly in various nations, this business model will assist the country. On the other hand, it makes a big difference by reducing carbon emissions. (Wagner et al., 2021)

2.2 Entrepreneurship idea through fuel swapping

Energy may be heated to higher temperatures using a process called "fuel swapping," which makes use of natural gas (Rattanawong et al., 2010a; Schaltegger et al., 2016). It is designed to replace the actual user. Some countries, including China and the UK (Rattanawong et al., 2010b), have been employing fuel switching for quite some time. In practice, this method entails switching from high-sulphur coal to low-sulphur coal (Cohen & Winn, 2007), with an emphasis on natural gas instead of oil and fuel. Hotels and other businesses may save money on electricity

and reduce carbon emissions by using this strategy. As a result, society reaps the benefits of reduced carbon emissions. (Hielscher & Sovacool, 2018).

2.3 Renewable energies and recycling business model

The best way for a company to save money is by switching to renewable energy. Some of the ITC's manufacturing facilities, such as the one in Trick, use approximately 70% of the renewable energy. While it may be difficult for a small business to compete with large corporations that have already established renewable resources and recycling models in place, doing so can provide a significant financial advantage and could be used as a selling point to attract new investors. Waste product and water recycling using reverse osmosis and anaerobic treatment are examples of straightforward business strategies. Using consignment as a way to recycle clothes would be good for both the company's bottom line and the environment. (Bergek et al., 2008)

3. Applications of the Sustainable Entrepreneurship Framework

According to the findings of this study, there are four defects, which we investigate as potential sources of business opportunities as well as usher in a novel type of entrepreneurial endeavour. Our goal is to demonstrate that the practice of entrepreneurship (Bergek et al., 2008) has the potential to halt the decline and possibly even contribute to the progressive improvement of the ecosystems found on earth. It is likely that entrepreneurs will be the ones to bring about the necessary advancements. can recognise the opportunity to acquire entrepreneurial rents while at the same time tackling environmental and societal concerns, and therefore go toward. (Rattanawong et al., 2010a; Schaltegger et al., 2016)

3.1 Perceived Environmental Concern

Therefore, an institutional niche emerged around the practice of assigning a monetary value to the reduction of carbon emissions and favouring low-carbon company projects. These businesspeople served as examples of and provided legitimacy for alternative business models, accelerating the shift toward a low-carbon economy. Concerns have been raised regarding energy security and climate change.

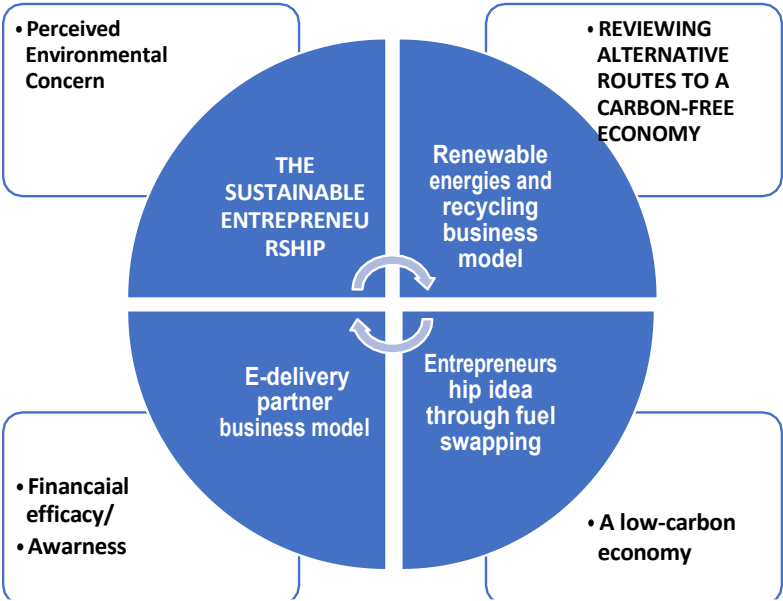


Figure 1: Conceptual Framework

3.2 Reviewing Alternative Routes to a Carbon-Free Economy

While the major goal of the COP26 meeting was to get governments to commit to reaching this goal by 2050, India vowed to reduce its emissions to net zero by 2070. Prime Minister Narendra Modi made this statement at the Glasgow summit. India has never instituted a zero- net loss target. To achieve "net zero," greenhouse gas emissions must be reduced to zero.

More than 120 international leaders, including the Indian head of state, have gathered for two weeks in Glasgow to discuss how to achieve carbon neutrality by 2050 or 2060. (Hielscher & Sovacool, 2018) Finally, we believe this paradigm will pave the way for more research that enhance ecological economics, which is why it is being pursued through the design of, within ecological constraints while obtaining growing and widely shared affluence. The conventional economic belief that unchecked economic growth, as measured by rising GDP, is possible or desirable in an ecologically "full" world has been called into question by recent research in this field. Instead, these studies argue for a more nuanced understanding of the interplay between social and economic factors that contributes to greater prosperity.

However, other economists have suggested that the enormous innovation and investment required to implement the shift to low-carbon energy sources will be advantageous to the economy, even though it will be necessary. We hope that the coevolutionary framework proposed here can be developed and used to explain how a low-carbon transition can help achieve growing and widely shared prosperity while remaining within ecological limits. This is similar to how the co-evolutionary framework has been used to explain the success of the Western economic model in creating wealth and prosperity (Wagner et al., 2021).

4. Methods

The research was conducted with the assistance of a questionnaire in the form of a survey, and the data for the study were gathered from 521 individuals residing in a variety of locations within Tamil Nadu using a convenient sampling method. A straightforward questionnaire consisting of five sections was developed with the assistance of an in-depth literature research. (Weber et al., 2020) In the first section, a few questions on the respondent's demographic information, such as their name, age, designation, gender, and the occupation in which they are employed, were obtained. You acknowledge that the use of alternative fuels and businesses that offer electronic delivery contribute to the reduction of pollution and greenhouse gas emissions. Awareness regarding the perception-dependent greenhouse gas concept Each test consisted of four questions on a 5-point Likert scale. After data were obtained, they were entered into IBM SPSS 25 and subjected to additional analyses using the same software.

5. Results

The purpose of reliability statistics is to determine the extent to which an accumulated dataset may be trusted. The Cronbach's alpha was anticipated to be greater than 0.50. The Cronbach's alpha value is 0.988, which indicates that the quality of the data is outstanding. (Gliem & Gliem, 2003). The Cronbach's alpha has a dependability rating that is widely regarded as excellent, the researcher can move on to more in-depth research. (Abelmazovs, 2018).

5.1 Test of Correlation

Null H1: There is a relationship between fuel switching, which helps reduce greenhouse gas emissions, and the e-delivery business, which helps reduce pollution. Alternative H1: There is no relationship between fuel switching helps in reducing greenhouse gas emissions and e-delivery business helps to reduce pollution; hence, it accepts the null hypothesis and rejects the alternative hypothesis.

Null H2: There is no association between gender and awareness of the effects of

greenhouse

Alternative H2: There is an association between gender and awareness of the effect of greenhouse gases.

Hence, we accept the alternative hypothesis and reject the null hypothesis. The purpose of correlation analysis, in most cases, is to determine whether the independent variable and the dependent variable share any sort of connection with one another. The value of the correlation typically ranges from minus one to plus one. Taylor, 1990. The correlation result shows, there is a positive correlation. The values of fuel switch and e-delivery had the highest positive correlation, with values of 0.808, indicating a strong correlation between the observed variables. On the other hand, the positive correlation between gender and awareness had the lowest value of 0.657, indicating a moderate correlation between the observed variables. (Schober & Schwarte, 2018). It is agreed upon that H0 is the null hypothesis. (Moya-Clemente et al., 2020) The alternative explanation or hypothesis the hypothesis that there is no connection between fuel switching and electronic delivery has a strong positive correlation of 0.808 and is generally accepted.

Likewise, hypothesis H2, which states that there is no connection between gender and consciousness, is generally accepted. correlation of 0.657, which is a moderately positive value. The hypothesis that there is a correlation between gender and awareness is supported by the finding of a positive correlation of 0.657. (Schober & Schwarte, 2018).

5.2 Test of Chi-square

Hypothesis (H1) states that there is no link between the gender of the respondents and how aware they are. Table 1 shows that the value of Chi-square P is 0.66, and we can declare this with absolute certainty. This makes it evident that there is no statistically significant association between the respondents' gender and their level of knowledge.

Table 1: Chi-square test output

Chi-Square P-value	0.66
df	1

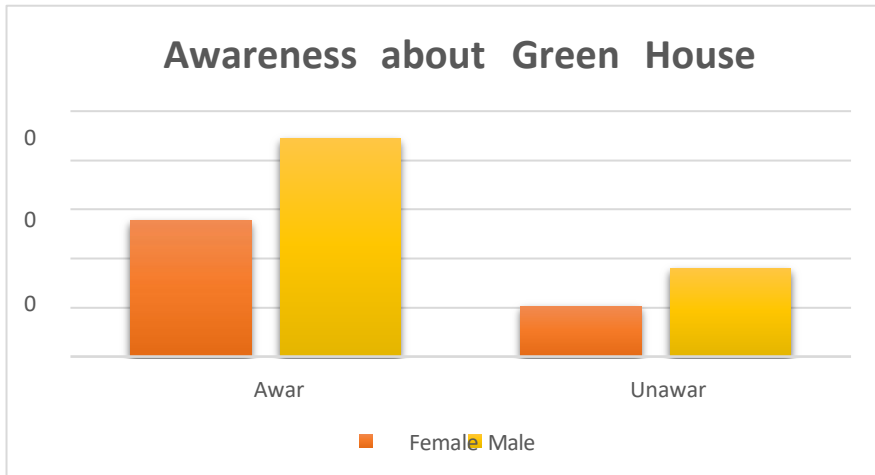


Figure 2: Awareness about Green House

As a result, we can conclude that the alternative hypothesis (H1) that there is an association between gender and designation of the respondents at the significance level of 0.05, is more likely to be true than the null hypothesis (H0), which states that there is no association between gender and respondents' awareness.

6. Discussion

Because it has a Cronbach's alpha score that is higher than 0.988, the questionnaire that the researcher used to collect data is regarded as being of excellent quality and very reliable.

According to the result, 89.3 percent of respondents agreed that up-to-date educational content might be rapidly disseminated with the assistance of an internet platform. Similarly, 82.3% of those who participated in the survey acknowledged that they were comfortable using online resources. As the value of P is greater than 0.05, the findings of the chi-square test show that there is no statistically significant association between the gender of the respondents and their level of awareness. The correlation reveals that there is a positive connection, and the value has the highest positive correlation (0.66), indicating a strong link between the variables that were observed. It is also apparent that there is a correlation that is significant at a level of 0.01, which enables us to state that the correlation of the extracted dataset has a degree of significance that is acknowledged at the 99% level.

7. Scope for Further Research

This research lays out a plan for developing a technology or idea that releases little carbon and helps the earth control how much heat it gives off. This will help to reduce greenhouse effects.

Many nations are shifting to low-carbon ways of production, and our research will help them learn more about the opportunities available to them and create businesses to take advantage of them. This study was expanded to determine how people feel about low-carbon economies and sustainable business models.

8. Conclusion

The most significant contributor to the build-up of greenhouse gases is human activity. And for the past 150 years, the burning of fossil fuels for heat, electricity, and transportation has been the cause of today's climate change. (Rattanawong et al., 2010b) Countries that have a higher proportion of emitting greenhouse gases are switching over to low-carbon energy sources, and this will change the way businesses operate and the way the world operates as a whole. (Key Points, n.d.) This study serves to urge company owners to use this decade to establish a business strategy that will allow them to be successful, while also contributing to the nation's economy and environment. It helps academics and businesspeople become more environmentally friendly and devise ways to reduce the country's carbon pollution. It also helps to build sustainable businesses worldwide.

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