Corporate Entrepreneurship in the Pursuit of Sustainable Development: Creating a More Sustainable Future

Przedsiębiorczość korporacyjna w dążeniu do zrównoważonego rozwoju: w kierunku zrównoważonej przyszłości

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Abstract

In recent times, the world has faced environmental challenges like deforestation, Global warming, soil erosion, water pollution, air pollution, and water scarcity. In order to solve the stakeholder demands and challenges, business houses must find answers. Companies must incorporate sustainability into their operations and operate with an entrepreneurial attitude. Sustainably oriented business operations may help firms reduce negative environmental impacts while simultaneously creating shared benefits for themselves and society, called sustainable corporate entrepreneurship. Such entrepreneurial activity helps an organization to achieve sustainable development goals. This research analyses the importance of sustainable corporate entrepreneurship in attaining the United Nations' Sustainable Development Goals in a developing country like India through a case study methodology. The study integrates several aspects of sustainable innovation concerning various areas of sustainable development goals. Further Implications, Limitations, and future research directions have been considered.

Key words: corporate entrepreneurship, sustainable innovation, Sustainable Development Goals, India

Słowa kluczowe: przedsiębiorczość korporacyjna, zrównoważone innowacje, Cele zrównoważonego rozwoju, Indie

1. Introduction

Deforestation, Global warming, soil erosion, water pollution, air pollution, and water scarcity all provide problems and challenges in the natural environment. The corporate sector must come up with answers to these challenges in the face of rising demands and pressures from many stakeholders (Lober, 1998; Miles et al., 1999; Menguc and Ozanne, 2005; Tseng, & Tseng, 2019). Researchers have argued that significant corporations should adopt sustainable business strategies to decrease negative environmental consequences while offering social and economic benefits. (Cohen and Winn, 2007; Miles et al, 2009; Schaltegger and Wagner, 2011; Atiq, & Karatas-Ozkan, 2013). Companies may engage in sustainable corporate entrepreneurship by taking an entrepreneurial approach to their sustainable business operations, which can help them decrease their adverse environmental effects while also producing shared value, which implies a value for themselves and society. In order to enhance both general social welfare and company profitability, Corporate entrepreneurship must be understood and implemented in practice. Further, in today’s competitive economic climate, a focus on innovation alone is insufficient for long-term success. Environmental awareness, social effects, and economic factors all pressure businesses to contribute to long-term sustainability. When an innovation focuses on both environmental and social problems, it is referred to as sustainable innovation. Moreover, Sustainability-oriented innovation (Adams et al., 2016) and socio-ecological innovation (Edgeman and Eskildsen, 2014) are examples of this sort of innovation. These innovations do not aim to maximize any single dimension(Hall et al., 2012), but rather aim to find a solution that meets all three dimensions, namely the economic, environmental, and social (Elkington, 1997).
Further, the role of innovations in increasing sustainability is one of the main topics that has been addressed by the Sustainable Development discourse (Silvestre and Silva, 2014a). This is because innovations are constantly changing the external world and the way of life (Huisingsh et al., 2013). They are critical components for implementing sustainability in companies supply chains, organizations, neighbourhoods, regions and nations. So, sustainability should be approached through innovative methods (Silvestre, 2015b).

Researchers, industry experts, and government officials all agree that sustainable innovation is a good idea. This is because, it is an urgent issue that needs rapid action and adjustments from authorities, corporations, and society (Mulder, 2007). As a result, academics, business leaders, and policymakers have started paying more attention to Sustainable Development (European Union, 2014; United Nations, 2016).

Furthermore, there is a lack of research about how corporate entrepreneurship may contribute to the Sustainable Development Goals and how their implementation would affect enterprises. This is due to various factors, including the recently announced Sustainable Development Goals and the rapidly increasing and changing global economic, social, and environmental issues (Apostolopoulos et al., 2018). To overcome the complexity of these global issues, corporate entrepreneurship can act as a catalyst for change. So, the present study investigates the importance of corporate entrepreneurship by analyzing the case of Indian conglomerate Tata and sons regarding its sustainable innovation, popularly known as one form of corporate entrepreneurship. This article explores and illustrates how corporate entrepreneurship leads to sustainable development goals. The study's purpose is followed by a literature review on Corporate entrepreneurship, Sustainable Innovation, and Sustainable Development Goals. The following section explains the methodology, followed by the Tata and Sons case study. Finally, the findings, conclusions, limitations and future research directions of the study are also discussed.

2. Literature Review

2.1. Corporate Entrepreneurship

Many scholars have researched the concept of corporate entrepreneurship (Huse et al., 2005; Morris et al., 2010; Amore et al., 2013; Sharma and Chrisman, 2007; Tian and Wang, 2014; Bai et al., 2016). Vesper (1984) defined corporate entrepreneurship as an employee initiative from below to undertake something new. The subordinates innovate without being asked, expected, or even permitted to do so by superiors. It is the creation of new goods and markets. Entrepreneurial organizations create more manufactured innovations and markets than usual (Jennings & Lumpkin, 1989).

Further, Chung & Gibbons (1997) defined Corporate entrepreneurship as an organizational process for transforming individual ideas into collective actions by managing uncertainties. It is a type of proactive behaviour that can stimulate desired innovation using formal and informal activities (Kuratko, 2012). It is also a vision-led, organizational dependence on enterprise conduct, which deliberately and continually revitalizes the organization and defines its activities' scope through recognizing and utilizing entrepreneurial opportunities (Ireland et al., 2009). Institutional learning is a key component of corporate entrepreneurship, helping employees to analyze markets and develop new products. (Zahra et al., 1999; Zahra, 2015; Tseng, & Tseng, 2019). In addition, corporate entrepreneurs may be encouraged by creating an environment of support and encouragement, providing intra-capital for corporate entrepreneurs, and reducing organizational borders to allow top management help.

According to Han and Park (2017), corporate entrepreneurship is defined as transforming an existing firm, creating a new business organization, and invention. To summarise, corporate entrepreneurship plays a role in distinguishing between a first mover and a latecomer. So, corporate entrepreneurship plays a critical role in inspiring sustainable innovation and thus accomplishing Sustainable Development Goals.

2.2. Sustainable Innovation

Sustainable innovation and economic performance have become increasingly important in the previous five years. (Aghion et al., 2009). The corporate sector has made sustainability a priority. Several historically significant forces contribute to this interest. Firstly, the world faces numerous long-term issues, such as population ageing, climate change, pollution, desertification, water scarcity, and critical raw material shortages (Boons et al., 2013). Secondly, the global economic environment has shifted into a multipolar period with new competition rules. Traditional policies that have governed international competitiveness are quickly changing. Leading economies and entrants to global markets have acquired not only the know-how for cost-driven competitiveness, but they have also become creative in conventional and high-tech industries (Contractor et al., 2010). Firms and regions aim to differentiate themselves to become leaders in world trade through innovation and intelligent specialization (Foray, 2009).

Lastly, following the economic collapse of 2007-2008, governments in numerous advanced economies can no longer rely on the electorate's trust and legitimacy in policy objectives to secure social welfare and employment. The increased active involvement of stakeholders prompted organizations to embrace sharing their duties in contributing to the social environment and minimizing the negative influence on natural environments in parallel with profit production (Miles et al., 1999; Klassen and Whybark, 1999; Fombrun et al., 2000). Sustainability is defined as adopting business methods that benefit the environment, society, and economy in the long run. As a result, the three components of sustainability are environmental responsibility, social duty, and economic responsibility. It
involves the process, product, management method, and policy orientation adaptation and modification (Silvestre, 2015a; Silvestre, & îrcă, 2019). Although the phrase sustainable innovation has gained popularity in recent years, few scholarly definitions are available (Boons et al., 2013). It may be defined as innovation that improves sustainable performance in ecological, economic, and social considerations (Carrillo-Hermosilla et al., 2009). Moreover, from idea generation to research and development (R&D) and commercialization, sustainable innovation is a process in which environmental, social, and economic sustainability problems are included into company operations. This is true for new products, services, and technologies, as well as new business and organizational structures (Charter and Clark, 2007; Charter and Tischner, 2017). The researchers suggested that sustainability considers three factors: monetary income, the environment, and society. Rantala et al., (2018) discovered that prioritizing the economic part of sustainability increases the likelihood of adopting sustainable technologies. Similarly, Przychodzen and Przychodzen (2018) found various firm-level features that distinguish and contribute to sustainable innovation. The study concluded that environmental innovations are significantly and statistically related to sustainable innovation activities. Furthermore, according to Bos-Brouwers (2009), sustainable innovation is the improvement or renewal of goods, services, and processes that improves not only economic performance but also improves environmental and social performance in the short and long term.

Moreover, corporate entrepreneurship plays a crucial role in fostering sustainable innovation in organizations, and the existence of innovation provides a path to the marketplace by transforming ideas into viable goods (Coakes et al., 2011).

2.3. Sustainable Development Goals

Economic, ecological, and social advancements all contribute to sustainable development. However, the capacity to optimize these advances is heavily reliant on the availability of technology, innovation methods, and the institutional circumstances established by government policies. In various academic disciplines, including business and management, research on the Sustainable Development Goals has begun to develop (Annan–Diab and Moliniari, 2017; Storey et al., 2017; Schaltegger et al., 2017). In 1982, the term sustainable development originally appeared in the World Charter for Nature in United Nations. In addition, the term triple bottom line is identified as social, environmental, and economic factors (Elkington, 1998). These three components of the sustainability vision were reiterated in 2002 at the Johannesburg Sustainable Development Conference. In addition, the Open Working Group at the U.N. General Assembly in New York created the Sustainable Development Objectives (S.D.G.s), a collection of global goals and targets that include 17 goals and 169 targets. Their goals include ending poverty and hunger, building peaceful communities, empowering women, and protecting the environment. The S.D.G.s outline global development goals through 2030, and they are critical for tackling the global economic, social, and environmental issues that communities confront.

In policy circles, these S.D.G.s are frequently referred to simply as The Global Goals. Even though they are intergovernmental obligations, the S.D.G.s have quickly gained support and importance among players outside the 193 United Nations member states who jointly endorsed them, including public policy agencies, N.G.O.s, and other public and private sector organizations. The S.D.G.s promote Government and private sector actions to stimulate economic growth in innovative and creative ways. These S.D.G.s are interdependent and, in some ways, inseparable (Le Blanc, 2015; Nilsson, Griggs, & Visbeck, 2016; Apostolopoulos et al., 2018). Corporate entrepreneurial activities typically address many S.D.G.s (Urbano, Aparicio, & Audretsch, 2018). Further, this study seeks to identify and develop the energizing benefits of committing to a Sustainable Development Goal framework in influencing corporate policy and activity.

2.4. Corporate Entrepreneurship and Sustainable Development Goals

Sustainable corporate entrepreneurship has gained popularity as a viable strategic option. It is identified under the name of ecopreneurship, social entrepreneurship, sustainable innovations, and the hypothesis that entrepreneurship linked to sustainability fosters some future ideas and contributes to long-term development (Schaltegger, 2002; Dean and McMullen, 2007; Patzelt and Shepherd, 2011; Shepherd and Patzelt, 2011; Schaltegger and Wagner, 2011; Murthy & Naidu, 2012; Luke and Chu, 2013; Ruebottom, 2013; Belz and Binder, 2015; Jolink and Niesten, 2015; Smith and Woods, 2015; Provasnek et al., 2017). Further, it is defined as the existence of considerable innovation in the firm’s products, processes, strategies, domain, or business model, as well as evidence of all three sustainability components – responsible environmental management, social accountability, and long-term economic success (Miles et al., 2009). Moreover, it is a type of entrepreneurship that develops inside existing businesses, although it may also be used for new businesses. Corporate entrepreneurship positively affects one of the vital pillars of the Sustainable Development Goals identified as pro-environmental behaviours. Since employee psychological empowerment is increased due to corporate entrepreneurship, and as a result, employees create more new, valuable, and practical ideas (Lumpkin, Cogliser, & Schneider, 2009; Park, Choi, & Kim, 2012; Swoboda and Olejnik, 2016; Teece, 2014). Their values may be transformed into pro-environmental behaviours through corporate entrepreneurial skills, which provide a
Several researchers have identified approaches that foster sustainable corporate entrepreneurship. Several researchers have identified approaches that foster sustainable corporate entrepreneurship. (Saha and Darnton, 2005; Glavič and Lukman, 2007; Steiner, 2008; Baumgartner, 2011; Schaltegger et al., 2012; Zollo et al., 2013; Provasek et al., 2017). For example, Miles et al. (2009) offer a new paradigm for corporate entrepreneurship called sustainable corporate entrepreneurship, which acknowledges the need for firms to be ecologically and socially responsible while being entrepreneurial. The term sustainability entails social responsibility, environmental management, and economic performance. Each of these aspects of sustainability should be given equal weight, and none of them should be prioritized above the others. Following sustainability principles may lead to new lucrative opportunities for the Company and value creation for all stakeholders. It is defined as actions seeking innovative methods to create goods, services, or processes while openly managing economic, environmental, and social obligations (Miles et al., 2009; Shepherd and Patzelt, 2011; Schaltegger and Wagner, 2011; Provasek et al., 2017). Similarly, Atiq & Karatas-Ozkan (2013) also offers a sustainable entrepreneurial conceptual framework that integrates a business mindset with environmental considerations. The researcher states that an entrepreneurial mindset should drive a sustainable business strategy to produce shared benefits for both the firm and society. Further, Cheema et al. (2020) found corporate entrepreneurship as a moderating factor in one of the Sustainable Development Goals, namely pro-environmental behaviour. The study has done over a sample of 479 employees and 122 department managers from different hotels in Pakistan. The author concluded that there is a moderate link between pro-environmental behaviour and corporate entrepreneurialism. Furthermore, Menon and Menon (1997) and Varadarajan (1992) characterized sustainable corporate entrepreneurship as envipreneurship marketing. It is defined as an innovative culture integrating environmental concerns with marketing strategy goals. Envipreneurship marketing is defined as the process of formulating and implementing environmentally beneficial marketing activities to create revenue by providing exchanges that satisfy a firm’s economic and social performance objectives. It aims to enhance a company's reputation while both boosting sales and profit. They argue that corporate entrepreneurship promotes environmental marketing because it involves risk and demands proactivity and innovation.

Further, Lober (1998) defined sustainable corporate entrepreneurship as 'environmental entrepreneurship,' defined as the development of new goods, services, or organizations in response to commercial possibilities in the environmental sector. It requires the Company to be proactive and helps it to gain a competitive advantage. The launch of new goods that meet environmental performance requirements and thus stakeholder expectations is one of the most prevalent kinds of environmental entrepreneurship. Similarly, Miles et al. (1999) defined sustainable corporate entrepreneurship as envipreneurship, which uses entrepreneurial skills and behaviours to discover environmental possibilities. They argue that by engaging in envipreneurship, a company may build a strong reputation and competitive advantage.

According to Miles and Covin (2000), stakeholders such as governments, consumers, and strategic partners are increasingly pressuring businesses to enhance environmental performance and minimize pollution. Furthermore, customers expect high-quality products that adhere to environmental regulations, and strategic partners seek out firms that adhere to these regulations. As a result of all of these considerations, firms are compelled to engage in environmental marketing in order to increase their reputational advantage, which may lead to improved financial and market performance (Gago and Antolin, 2004). Similarly, Menguc and Ozanne (2005) identified sustainable corporate entrepreneurship in the name of the natural environmental orientation (N.E.O.) as a higher-order concept covering three components viz.: entrepreneurship, corporate social responsibility, and environmental sustainability. When it comes to developing new and creative products for green markets, the author argues that using an entrepreneurial strategy will help the Company achieve its goals.

In terms of environmental factors and Sustainability, Dean and McMullen (2007) describe sustainable entrepreneurship as the process of finding, analyzing, and utilizing economic possibilities that exist in market failures that detract from sustainability, particularly those that are environmentally relevant. The authors argue that entrepreneurs with an environmental emphasis may capitalize on environmental-related market failures by combining two disciplines, entrepreneurship and environmental economics. As a result, they may benefit from such mistakes, minimize negative environmental consequences, and shift markets toward sustainability by exploiting such flaws. Similarly, Pacheco et al. (2010) defined Sustainable entrepreneurship as the discovery, production, assessment, and exploitation of possibilities to generate future commodities and services that are consistent with Sustainable Development Goals. Only when individual and social objectives are aligned within the larger economic environment, they believe, can sustained entrepreneurship take place. The benefits of sustainable entrepreneurship include improved brand image and reputation and more significant sales and profitability.

Based on the above literature review following model has been developed:

![Figure 1. Model of the research](image-url)
3. The Objective of the Study
The study's objective is to investigate the Sustainable Development Goals in Indian conglomerate Tata and sons by sustainable corporate entrepreneurship through the case study approach.

4. Research Methodology
The current study used a qualitative research approach by the case study research technique to investigate the Sustainable Development Goals in Tata and sons. The case study is the most commonly utilized approach in qualitative research (Yin, 1984; Barnes, 2001). According to Yin (2014), A case study is a research approach used to understand a complex issue in its real-world setting. It is a well-established research strategy, especially in the social sciences. It may be used to describe events in the context of daily life. Moreover, Case studies can use an embedded design, which means that many levels of analysis can be conducted inside single research (Yin, 1984). Thus, it enables researchers to preserve real-world events' holistic and significant human life cycles, organizational and management processes, neighbourhood changes, international relations, and industry development (Yin, 2013). Furthermore, case studies may be utilized to accomplish a variety of goals, including providing description (Kidder, 1982), testing theory (Pinfield, 1986; Anderson, 1983), and generating theory (Gersick, 1988; Harris & Sutton, 1986).

5. Tata & Sons Group Initiatives
The Tata group, founded by Jamsetji Tata in 1868 and headquartered in India, is a worldwide conglomerate with 30 firms spanning ten industries. Tata Sons is the Tata Group's primary investment holding firm and promoter. The Philanthropic trusts of the Tata group own 66% of Tata Sons' equity share capital, which supports education, health, livelihood generation, and art & culture. The group operates in more than 100 countries on six continents, with the purpose to increase the quality of life for communities worldwide via long-term stakeholder value generation based on Leadership with Trust. Tata enterprises collectively generated $106 billion in revenue in 2019-2020. These firms jointly employ approximately 750,000 people. Each Tata company or enterprise works autonomously, with its board of directors guiding and supervising it. As of August 31, 2021, 28 publicly traded Tata companies with a total market capitalization of $300 billion (Livemint, 2021). These companies include Tata Steel, Tata Consultancy Services, Tata Chemicals, Tata Motors, Titan, Tata Consumer Products, Tata Advanced Tata Power, Systems Tata Capital, Tata Communications, and Indian Hotels

Case 1. ‘Gaon Chalo’ Initiative for Rural Livelihood
T.G.B.’s (Tata Global Beverage) Gaon Chalo initiative began in 2006 in northern India’s Uttar Pradesh. It is a rural distribution method that encourages people to sell Tata Tea in their communities. This enabled the Company to cope with the final step of rural distribution while also increasing rural revenue. Gaon Chalo is presently available in 18 Indian states, reaching 70,000 villages. In this rural distribution approach, channel partners such as rural distributors, rural mobile distribution partners, and rural traders played an important role. The product was sold at large shops, wholesale outlets, and local haats, among other places. It also took N.G.O. presence in rural Uttar Pradesh to identify rural businesses and supply rural merchants. The Tata Tea was subsequently provided to the project affiliates at pricing to make good M.R.P. profits. Additionally, the initiative partnered with Self-Help Groups in order for it to be more effective and penetrate deeper into society.

Tata Global Beverages promotes its mass-market brands, including Kanan Devan and Chakra, as part of the Gaon Chalo campaign. Tata Global Beverages promotes its mass-market brands, including Kanan Devan and Chakra. As a result, Tata Tea's rural market share grew from 18% to 26.66%. Further, The rural stores were easily accessible, and sales fluctuated less. It also offers an effective platform for establishing brand recognition and handling the intricacies of local markets. As a result, Tata Tea now has 20,000 retailers in 10,000 villages. The concept was created by a sales team member and was driven by the steering committee, aiming to increase the rural market and generate revenue for rural stores.

Case 2. Global Stem Skills Crisis: Inspiring Tomorrow’s Engineers
A programme called Jaguar-Land Rover-Inspired Tomorrow’s Engineers promotes students to learn about STEM (Science, Technology, Engineering, And Mathematics) subjects and participate in them. The initiative encourages young people to choose engineering and manufacturing jobs through a partnership with schools and universities. It is essential to encourage talented youth to become the next generation of technicians and engineers to solve the lack of skills. This will allow organizations to meet their long-term business requirements. The global scarcity of freshly trained engineers has been a severe problem for the automobile sector. In order to inspire young people to pursue professions in engineering and manufacturing, Jaguar Land Rover created the Inspiring Tomorrow’s Engineers programme in 1998. Education centres, classroom exercises, and fieldwork were

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1 All cases were discussed after materials from the Internet page: www.tatasustainability.com.
all part of the programme, reinforcing learning in a real-world context. Further, students were also encouraged to participate in STEM challenges, build and race cars, and simulate actual engineering processes as part of the curriculum. However, the implementation of key aspects is currently underway in schools throughout the world. The project's outcomes are favourable. There are currently 2.9 million young people participating. The 165,000 students worldwide participated in STEM challenges outside of the U.K. J.L.R.’s employability initiative drew 200 jobless young people from the U.K. and Brazil, and many of them now work for J.L.R. or in the car sector. Since 2014, 50 young people who took part in Inspiring Tomorrow's Engineers, including 30 women, have joined J.L.R. A growing number of nations, like Australia and South Korea, provide STEM challenges to students. The United Kingdom is one of the most popular countries to offer STEM challenges. Further, Global participation in an online STEM challenge programme was boosted by using the cloud. In addition, the Company uses education centres to support additional programmes to assist jobless youngsters and retired military people in preparing for career prospects.

Case 3. Development of a Model Village

The model Tribal Village Development Project was created by Rallis India Ltd. In order to achieve this, the project seeks to establish a sustainable eco-system in which everyone has access to basic infrastructure, livelihood opportunities, government benefits, capacity-building, economic progress, education, excellent health, and other essential resources that will enhance their amount of happiness and well-being. Furthermore, Rallis believes that social development should be participatory and demand-driven. Therefore, a baseline study was conducted to understand better the difficulties that tribal villages face and the prospects for development. Then, with the community's help, a committee was created to execute the village's priorities and survey findings. Such Prioritization was done based on a third-party requirement assessment to complete critical projects in three years.

Rallis decided to electrify the community with renewable energy, remove suspended silt from the existing check dam for drinking and irrigation water, implement watershed projects and build individual toilets and bathrooms for all households to end open defecation. The villages will also contribute 20% of Shramdaan's budget as part of the participatory approach. As a result, Villagers have access to clean drinking water after the first year of intervention, and they may borrow water for 12 months for home and agricultural usage. In addition, street lights have been installed, and households have access to power. As a result, open defecation loads have decreased significantly, resulting in better health effects. Following the success of the Rallis Hybrid system, the government has begun roadwork and agreed to supply power to the community. Moreover, Pukka homes have increasingly replaced existing huts and men. The project's actions are based on an expert-led evaluation of community needs. Beneficiaries took ownership of the project through Shram Daan, which offered services for community work and maintained the infrastructural development. In addition, several projects focused on specific components such as agricultural modernization, water, healthcare and hygiene power, and education and awareness-building activities were established as part of an integrated development plan that addressed a wide range of community needs.

Case 4. Smart Water Solutions: Smart Engineering and Science

Voltas Water Solutions (V.W.S.) declared in 2014 that it would meet the country's rising water and sewage treatment needs. Voltas Ltd. and Dow Chemical Pacific (Singapore) Pvt. Ltd. have a 50:50 joint venture called Voltas Water Solutions (V.W.S.). In order to fulfill this promise, V.W.S. has expanded its product line to include packed R.O. purified water, skid-mounted water treatment systems, and packaged sewage treatment facilities.

They are using V.W.S.'s G.E.T. S.E.T. R.O. is one of the most secure ways to obtain purified drinking water. It may be used in offices, schools, and urban infrastructure. When compared to household water purifiers, it is distinguished by high water recovery using FILMTECTMRO components, resulting in little wastage. As a result, it is a more cost-effective and ecologically friendly alternative. The Sewage Treatment Plants are planned to provide a cost-effective water reuse option.

They are also designed to meet the strictest physical and biological criteria for reusing water in washing, cleaning, and gardening. The advantages include compactness, energy efficiency, ease of installation, economy, durability, and almost no odour. The Water A.T.M. is a coin or smart card controlled dispenser that may provide clean drinking water cheaply when linked to any water source. This water vending machine is intended for use in urban and rural areas where safe drinking water is not readily available. In addition to providing maximum output and performance, the new V.W.S. devices have been developed to have the smallest footprint in their class, making them space and cost-efficient. The Voltas Water Smart Monitoring App and web access via P.C.s or tablets allow users to monitor the system from any place.

Men and women can save time obtaining water from the Water A.T.M. This Water A.T.M. provides communities and public areas with a safe, long-lasting, and secure source of purified drinking water. In addition, V.W.S. seeks to provide dependable, long-term, and branded solutions in a market dominated by unorganized companies. As a result, V.W.S. Point Of Entry is a great alternative to bottled water in commercial and institutional environments.
India has mandated that corporations spend at least 2% of their annual earnings on corporate social responsibility (C.S.R.) for the first time globally. In addition, most N.G.O.s and corporate social responsibility programmes work together to improve health results through Corporate Social Responsibility efforts in water and healthcare. V.W.S. began its Water A.T.M. programme in this spirit, intending to provide rural areas with an accessible and affordable supply of clean drinking water. Within the Tata group, there is a big chance to expand this project in-house.

**Case 5: Big: Beautiful is Green**

This initiative demonstrates Tata Housing's dedication to environmental excellence across its value chain. As a result, Tata Housing accounts for over a third of India's eco-friendly buildings, with 55 million square feet of the total 1.55 million square feet.

Tata Housing's initiatives include the design and production of green goods recognized by the Indian Green Building Council/LEED that optimize the use of resources like cement, water, steel, and electricity while building properties utilizing cutting-edge technology. At its offices and project locations, Tata Housing tracks its carbon impact. The energy-efficient certified Bureau of Energy Efficiency lights, solar lighting, drought-tolerant plant types, appropriate landscape irrigation, and rainwater collection are some of the ways to lower carbon footprint. Furthermore, The Company also supports ecological balance by protecting soil, utilizing local resources, recycling, employing wind turbine ventilators, and scheduling light-off times. In addition, to reduce its carbon footprint, the Company uses air conditioners set at a comfortable temperature, rail travel rather than flying, carpooling, and video/audio conferencing, among other things. Furthermore, to decrease its carbon footprint, the Company is planting trees and establishing green zones around its facilities. In addition, Many conservation projects have started with World Wildlife Fund-India, including Red Panda Protection and Nature Wake Up. The initiative saves 54 million gallons of water and decreases carbon emissions by 1,593 tonnes. Moreover, these recycled components of materials account for at least 20% of the overall cost of the materials. In producing green goods, It was awarded the Golden Peacock Eco-Innovation Award. Further, It actively tracks carbon emissions at all projects, sets carbon reduction objectives per square foot, and educates consumers about the benefits of green buildings.

**Case 6: A Value Chain With a Closed-loop**

After reviewing its vehicle's life cycle, Jaguar Land Rover (J.L.R.) has effectively adopted the circular economy concept. The REALCAR (Recycled Aluminum Car) is a project that focuses on creating a closed supply chain. J.L.R. partnered with its primary supplier (Novelis) to develop a one-of-a-kind closed-loop method. Rather than joining the typical aluminum recycling system, J.L.R. sold scrap metal from automobiles back to the source. In addition, J.L.R. ensured project flexibility, allowing additional sub-innovations to be explored as independent initiatives.

Third-party organizations such as the government and industry associations can provide the necessary support to enable such innovation. Further, Senior stakeholders also have provided unwavering support and advocacy for the programme. Moreover, The dedicated stakeholders fostered Fresh thinking and fresh ideas. Due to REALCAR, Novelis has cut its greenhouse gas emissions by 13%. In addition, Jaguar Land Rover's closed-loop recycling facility in the United Kingdom collected roughly 30,000 tonnes of press shop aluminum trash. Consequently, the Company saves up to 95% on energy by using recycled aluminum instead of raw aluminum.

**Case 7: Hisarna – Looking to the Future**

The World Steel Association recently ranked Ijmuiden (Netherlands) as one of the world's most carbon-efficient steelworks. At the Ijmuiden plant, the energy needed to create a tonne of steel has decreased by 31% since 1989. Tata Steel keeps improving operating efficiency, but reducing CO₂ emissions on a large scale is thermodynamically difficult. So, The chemical steel manufacturing process in a conventional blast furnace employs carbon as a reducing agent. The laws of physics eventually preclude future substantial improvements in CO₂ efficiency for blast furnace technology. However, Tata Steel has recognized the need to invest in cutting-edge technologies that will significantly increase CO₂ efficiency in steel production.

Tata Steel proved that the Company is a crucial player in ULCOS, a European-wide project to minimize carbon emissions in the steelmaking process. In 2010, Ijmuiden received a €20 million Hisarna pilot plant. The furnace streamlines the blast furnace process considerably since fine raw materials may be handled directly without agglomeration. Iron ore and coal are actively converted into iron using Hisarna's cyclone converter-based ironmaking technology. Its energy-efficient manufacturing process can cut CO₂ emissions by 20% compared to a blast furnace. It should be feasible to achieve CO₂ reductions of up to 80% when combined with carbon capture and storage systems. It can also take advantage of lower-cost raw resources. The second phase of the ULCOS project is underway. The goal is to show that it can be done on a big scale in an industrial setting. In the second phase, Tata Steel will assess the process's suitability for removing zinc from zinc-coated scrap steel. In 15 to 20 years, this technology might play a significant role in creating a low-carbon circular economy.
<table>
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<th>Company</th>
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| 1           | No Poverty                 | Tata Global Beverages | Gaon Chalo Initiative for Rural Livelihood | 1. Income  
2. Employment | Innovative ideas of the sales team | The No poverty Sustainable development Goal ends poverty. It can be achieved through employment. The Tata Global Beverages increase employment through its innovative rural distribution strategy. As Corporate Entrepreneurship is implementation of innovative ideas within the organization. The sales team of ata Global Beverages provide such innovative ideas through which Sustainable Goal No. 1 can be achieved. |
| 4           | Quality Education          | Jaguar Land Rover | Global STEM Skills Crisis: Inspiring Tomorrow’s Engineers | 1. Promoting STEM-related  
2. Promote social mobility  
3. Actively recruiting talent  
1. Engaged passionate people  
2. Global growth  
3. Employee Training for innovative performance | The Goal No. 4 is quality education which is Ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all. This goal is implemented by Jaguar Land Rover through its ‘Inspiring Tomorrow’s Engineers’ initiative which encourages learning and participation in STEM (science, technology, engineering, and math) disciplines. By such learning the organization Engaged passionate people and provide Employee Training for innovative performance. By this initiative the organization create corporate entrepreneurial culture through sustainable development goals. |
| 6           | Clean Water and Sanitation  | Rallis | Development of a Model Village | 1. Ensure socially disadvantaged groups’ equality | Frugal innovation | Clean Water and Sanitation Sustainable development Goal Ensure availability and sustainable management of water and sanitation for all. The Rallis create a sustainable eco-system in which everyone has access to basic amenities/infrastructure. This is one type of Frugal innovation which can be achieved through the corporate entrepreneurial culture. |
| 9           | Industry, Innovation and Infrastructure | Voltas Water Solutions | Smart Water Solutions: Smart Engineering and Science | 1. Safe drinking water for the community  
2. Less wastage of water | 1. Innovation  
2. Resource efficiency | Goal No. 9 is Industry, Innovation and Infrastructure which is Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation. The Voltas Water Solutions provides the Safe drinking water for the community with Less wastage of water through Smart Water Solutions. This is the corporate innovation can be achieved through Resource efficiency that helps to achieve the sustainable development goals. |
| 11          | Sustainable Cities and Communities | Tata Housing | BEG: Beautiful Is Green | 1. Green buildings  
2. Clean energy systems  
3. Conserve biodiversity | 1. Innovation  
2. Cost Reduction | The Sustainable Cities and Communities goal Make cities and human settlements inclusive, safe, resilient and sustainable. Tata Housing implement a innovative program under the named BEG: Beautiful Is Green for the development of Green buildings. Clean energy systems that helps the Conservation of biodiversity. This is the innovative low cost strategy which can be achieved only through the corporate entrepreneurial initiatives. |
| 12          | Responsible Consumption and Production | Jaguar Land Rover | A Value Chain with a Closed Loop | 1. Environmental benefits  
2. Resource conservation | 1. Environmental Innovation  
2. Cost Reduction | Goal No. 11 is Responsible Consumption and Production that Ensure sustainable consumption and production patterns. The Jaguar Land Rover develop a A Closed Loop Value Chain that benefit the environment through Resource conservation. Such Environmental Innovation through Cost Reduction is an example of corporate entrepreneurship initiatives within the organization. |
| 13          | Climate Action              | Tata Steel | HSarma – Looking to the Future | Reduced CO2 emissions | 1. Innovation | Climate Action is the Taking urgent action to combat climate change and its impacts by regulating emissions and promoting developments in renewable energy. Tata Steel through its corporate innovation strategy reduced CO2 emissions in its manufacturing process on Ijmuiden (Netherlands) plant. It is an example of achieving sustainable development goals through corporate entrepreneurship. |
| 15          | Life on Land                | Tata Global Beverages | Sustainable Beverages | 1. Forest management that is environmentally friendly  
2. Product effect reduction  
3. Optimize resource utilization | 1. Environmental innovation | Goal no 15 is Life on Land which is Protection, restoration and promotion of sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reversing land degradation and halt biodiversity loss. The corporateentrepreneurial culture of the Tata Global Beverages develops Sustainable forest management by Reduction of product impact and Optimization of resource efficiency. |
The collaborative approach can achieve such corporate innovation strengthened and made more result-oriented by pooling resources and knowledge. Further, the appropriate mix of talents improved development. Moreover, Out-of-the-box thinking and tenacity are essential elements for success.

Case 8. Sustainable Beverages

For many years, Tata Global Beverages (T.G.B.) has been committed to sustainably obtaining raw teas. T.G.B.’s goal is to acquire teas from growers worldwide who adhere to high social and environmental standards. In 1997, they joined the Ethical Tea Partnership (E.T.P.) as a founding member to accomplish this goal. As a result, by 2016, T.G.B. will only acquire Tetley-branded teas from Rainforest Alliance Certified farms in Europe, Middle East, Africa, Canada, Australia, and the United States. Also, in India, they are founding members of the Trustea project, a multi-stakeholder effort coordinated by the Tea Board of India that aims to sustain reform the Indian tea business.

Tata Global Beverages has launched the Sustainable Plant Protection Formulation project to create environmentally friendly plant protection solutions for tea. The initiative partners with three Tata companies: Tata Chemicals, Tata Global Beverages, and Rallis, to develop and implement environmentally friendly tea plant protection solutions. The project aims to create a commercially viable portfolio of tea-specific SPPFs while identifying environmentally acceptable pest management solutions in Indian tea estates.

The project's outcomes, Independent third-party certifications, Integrated pest management (I.P.M.), Farmer Field Schools are educational opportunities for farmers. It supports the employment of non-chemical approaches such as biological, cultural, physical, mechanical, and chemical ways to battle tea pests. In addition, it Encourages farmers to use I.P.M. and decrease pesticide use by educating them on sustainable agriculture practices and certifications.

T.G.B. convinced them through Farmer Field Schools, which allow farmers to develop their course material and learn by experience on demonstration plots. In addition, the Company used a Train the Trainer strategy, in which a group of designated lead farmers were trained and then went on to teach a smaller subgroup. Tata Global Beverages is a founding partner in the Tea Board of India's Trustea initiative, aiming to improve India's tea industry sustainably. By 2017, the project hopes to generate 500 million kg of tea through 600plus firms and enhance the lives of 500,000 tea plantation employees and 40,000 smallholders.

6. Conclusions

This section highlights the most important conclusion from the analysis. First, the authors examined all 17 S.D.G.s and discovered a relationship between them and corporate entrepreneurship. Only some of them related to corporate entrepreneurship. Second, the authors examined the Tata conglomerate's numerous cases in the context of sustainable development and established their link with corporate entrepreneurship. The author found that out of 17 S.D.G.s, only nine S.D.G.s related to corporate entrepreneurship. These 8 S.D.G.s are viz. No Poverty; Quality Education; Clean Water and Sanitation; Industry, Innovation and Infrastructure; Sustainable Cities and Communities; Responsible Consumption and Production; Climate Action; Life on Land.

Further, the author found that these S.D.G.s can only be possible due to the innovative organizational culture and Management support. Therefore, corporate entrepreneurship is essentially required for attaining the S.D.G.s. Table 2 summarizes the findings.

The paper established the theoretical link between S.D.G.s and corporate entrepreneurship through case studies. Corporate entrepreneurship has been highlighted as a critical component in attaining the S.D.G.s. It illustrates how entrepreneurial activity may address various economic, social, and environmental issues globally and locally. Organizations must prioritize sustainability in their stated vision and mission to achieve sustainable development goals through corporate entrepreneurship. For example, the organization's vision and strategy are essential at that level since they will guide its decisions. In addition to management's vision and foresight, an entrepreneurial culture must exist across the Company. Sustainability must be integrated into business operations and combined with an entrepreneurial mindset to produce shared value. Moreover, Entrepreneurs see sustainability as an opportunity rather than a burden imposed by the government and society.

The study adopted the case study approach, which is different from the empirical research. It has some limitations. For research purposes, case studies are less desirable than empirical research. Furthermore, one specific criticism of case studies is that they lack a solid foundation for generalization. In other words, a single case study cannot be used to generalize something (Yin, 2013). A future study might use a grounded theory method to conduct interviews with managers about corporate entrepreneurship towards S.D.G. achievement since the article focuses on a single company, Tata and sons. As a result, the generalizability of our findings is restricted. Comparative research in the context of other Companies might be used to learn more about it.

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