

A Study on CSR Management for Sustainable Development and Technologies Used with Reference to Dr Reddy Laboratories

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Abstract - CSR means Corporate Social Responsibility

It is the responsibility of the companies to contribute to the various sectors in the economy for the development of the country. Every organisation must contribute to the society and each organisation contribution towards CSR in different ways it could be in health, education, environment and many more. There are several frameworks like SEBI many more which guides the CSR. For the human development and growth we need to meet the needs in present without compromising the the needs for future generations is called as sustainable development. There are several technologies for the sustainable development has technology is growing several things have been changed with technology which implement green chemistry, waste management, Renewable energy, A.I,Data analytics, Block chain and other technologies.

Objectives- To study on Technologies used in sustainable development. To study on CSR and technologies in sustainable development with reference to Dr Reddy laboratories.

Methodology -Secondary data is used from various reports, articles, research projects, content analysis,case studies and many more. Descriptive and Exploratory research is used for this study. Longitudinal study is applied. According to Financial Year 2023-24 India has reached INR 29,986.92 crore in CSR expenditure. Previous year it was 2022-23 INR 26,579.78 crore. There has been increased in CSR expenditure from past few years. This study examines role of technologies with CSR in sustainable development it examines the key factors for the development for sustainable development. It explains the different technologies under CSR.It also gives overview of CSR in sustainable management and technologies used by Dr Reddy laboratories.

Keywords - Corporate Social Responsibility, technologies used in sustainable Development, Sustainability

I. INTRODUCTION

Corporate social responsibility is the duty of the organisation to contribute towards the environment and society.CSR management in sustainable development is important. There is a huge connection between CSR and sustainable development.Technology is increasing rapidly and we are producing huge pollution, E-waste,emission of gases, Water shortage and we are harming the environment with our actions.It is the responsibility of organisation to contribute to environmental and society.This study explores about the CSR in sustainable management and different technologies used in business taking the consideration of one company Dr Reddy Laboratories. Sustainable development can be contributed in economic, environment, Governance. Role of CSR in developing countries is very important for the development of economy and country

II. REVIEW OF LITERATURE

1.Lertlak Jaroensombut et al(2025)-This study examines the role of CSR in management for sustainable development.It also explains the conceptual frameworks of CSR .It explains different factors for CSR management for sustainable development.CSR initiatives have been considered for employees, customers, sustainability for long term in nature.

2.Manoj Kumar Ganesh and Bangaru Venugopal (2024)-This study explains the challenges faced by CSR in society, people, environment. It briefly explains about the indian corporate social responsibility frameworks clearly.

3.Radostina Bakardjieva(2016)-This study explains about the relations of CSR in sustainable development.It also explores the sustainable development models and drivers for sustainable development and CSR.

4.Humaira Yasmeen and Cheng Longsheng(2024)-According to this study conducted few companies are performing their CSR responsibilities properly.They have explored into green innovation.They have concluded that few companies are not able to find the resources for CSR due to narrow knowledge of resources and less concentration.

5.Maja Pucelj and Rado Bohinc(2024)-This studies explains about the corporate governance like there laws ,Rights many more and strategies for sustainable development in CSR.

6.Marwan Mihem et al (2024)-This study examines the CSR in developing countries and poor countries. It explains the strategies to develop CSR in poor countries and Developing countries.

7.Muhammad Zada et al(2025)-This study explains about the organizational learning theory It discusses CSR leadership and sustainable outcomes and explores green learning in organisation.

8.Mahdi Pouresmaeil et al (2024)-This study explains about the systematic review of sustainable development for mining and also provides insights for mining as CSR.It explores the relationship between CSR and sustainable development.

1. CSR management for sustainable development

CSR management for sustainable development is very much important for the organisation. It increases focus on employee organisation and will come to know the background of the employee and help them. Environmental sustainability is the key component control of carbon footprint,gas emissions, waste management, pollution issues of environment must be considered. Governance must be maintained illegal issues and corruption issues must be considered and take action up on it.Human rights must be known to every one has a social cause for every citizen.Digital transformation is important for the growth of the organization and employees.CSR awareness must be known to every one it must be educated to everyone and have clear details about

CSR contribution for the development of the society. Sustainability reporting which includes environment, social, governance activities are considered and they are given scores based on this score investors come forward and take decisions this reporting and rating are done by different frameworks around the world like SEBI,BRSRTCDF, UN, Sustainable development goals and many more.They also help the communities for education,health, sustainable, livelihood for farmers acting has backbone for them in development of their farms.In education providing scholarships for the students helping the schools for their curriculums and maintaining resources to run the schools. Consumers play and important role in the business they have to retain the customers by providing good quality of products reaching their expectations there must be fair practices they must not cheat their customers by giving poor quality, wrong labeling, greenwashing many more. Renewable energy resources must be encouraged for the sustainable development. These all must be considered for better future and save the environment for future generations and following all the rules and laws accordingly where there will be growth in economy for the country.

III. DR REDDY LABORATORIES CSR INITIATIVES

Dr Reddy laboratories is one of the famous Drug companies in the world.Its global presence is around 76 countries and 53 nationalities.It has been established by Dr. Anji Reddy in 1984.Current chairperson is K.Satish Reddy.There basic purpose “good health can't wait” it has been providing its services for the past 40 years.It has been rated as 23.6 which as medium risk in ESG by Sustainalytics. Dr Reddy laboratories contribute to CSR in education, development of skills, health, sustainability and many more.It concentrates on sustainable development goals.It follow frameworks of SEBI for ESG reporting.There main motive is to contribute to sustainable development. As increase in technology like A.I, machine learning, deep learning, neural networks, block chain, SAP it has been applied in various ways in Dr Reddy labs they use technology for calculation of ESG scores, Carbon footprint, waste management and many more.

Following are the few CSR initiatives

- Education
- Livelihood

- Health
- Environmental Sustainability

1.Education-They have taken this initiative to provide education and equal learning opportunities to everyone they have made this possible by Dr Reddy's foundation through

- Kallam Anji Reddy Vidyalaya and Junior Vocational College run with the motto every young must have good education there are several courses offered in physiotherapy, medical lab technician, computer science, Automobile engineering and many more.
- School Improvement Programme (SIP) provides support for academics in school on how to design a curriculum. How we can mould the students by providing different opportunities. It also provides different resources for the schools and students to grow. It has been established in Telangana and Andhra Pradesh.
- Sashakt scholarship for girls-This scholarship is given to girls students who have completed there 12 th they want to pursue higher education like B.Pharmacy, B.Tech, MBBS many more.It provides financial and mentorship for the women who want to pursue higher education.

2.Livelihood-It enhances the skills for youth for their livelihoods and also supports the farmers.

- Placement linked skilling programme for youths and Persons with Disability-It provides various training programmes from the age of 18 to 35 in various disciplinary.It also give support to the person with disability so that they can grow there in life.
- Healthcare Skilling in the non – medical healthcare sector-They are providing various training programs for health care

like communication, empathy, time management,flexibility,many more.Training and development are very much focused to build health care.

- Agriculture programme focusing on capacity and income enhancement of small and marginalised farmers- It focuses on giving strength to farmers by providing opportunities to the farmers in finance,providing better conditions to farmers for their good returns.To mitigate risks of the farmers,To make sure of climate change impact on farming for the farmers.

3.Health -Easy availability of healthcare for the people and considering their affordability also.They want to grow their health care system in all the areas.Their main aim is to provide good facilities for the weaker sections who are in rural areas according to their affordability.

- Rural healthcare services at the doorstep through Community Health Intervention Program
- Tele-counselling support for mental health through the Roshni Helpline
- Include at least 3% persons with disabilities (PwD) in our workforce by 2030.
- Improving primary healthcare services to improve the quality of primary care services in the selected Primary Healthcare Centres

4.Environmental Sustainability-It is one of the pharmaceutical companies which strictly follows the ESG frame works there motive also to contribute for the environment and also control carbon footprint, waste management, water recycling and many more. Dr Reddy laboratories CSR expenditures spent on health, education, livelihood, environment sustainability have been disclosed from below table Amounts in (cr) and graph.

Table-1

Year	Health	Education	Livelihood	Environment Sustainability
2021-2022	9.4	8.05	12.061	2.93
2022-2023	1.95	8,76	17.72	6.55
2023-2024	1.85	8.76	17.72	6.55

source-Annual reports of Dr Reddy labs

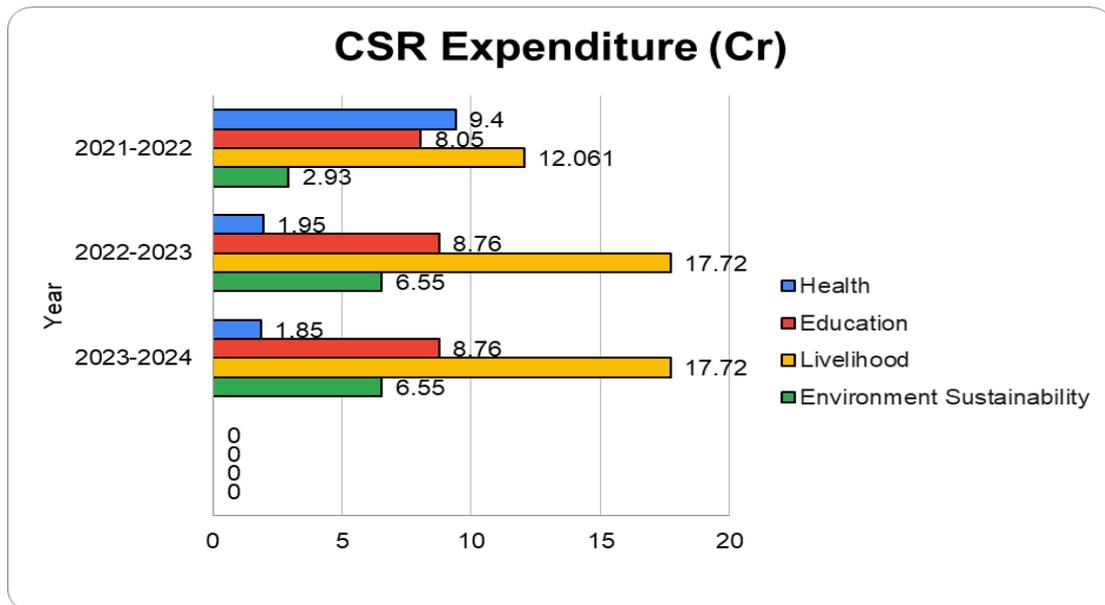


Fig-1

From the above table and graph the data has been collected from the annual reports of Dr Reddy laboratories. It shows the amount spent by Dr Reddy labs in health, education, livelihood, environment sustainability. The data has been collected from 2021 to 2024 for the year 2021-2022 the amount spent on health was 9.4 crores and towards education 8.05 crores. livelihood 12.061 crores and environment sustainability 2.93. For the year 2022-23 amount spent on health 1.95 there was decrease in expenditure compare to previous years. There was increase in education by 8.76 crores. Livelihood 17.72 and there was increase in environment sustainability by 6.55 crores. For the year 2023-24 amount spent on health 1.85 crores towards education 8.76 crores and livelihood 17.72 crores environment sustainability 6.55 crores.

IV. DR REDDY LABS TECHNOLOGIES

1. Use of Digital Tools in R&D and Supply Chain Management

- Advanced Simulation and Modelling—they use this simulation software to ape biological interactions and to predict results based on different chemical properties. it is basically used for testing new drugs virtually it helps in running clinical trial process fastly by reducing time and expenditure at early stage.
- Digital Twin Technology—This technology is used by the company for the production and manufacturing process virtually. It can apply on production line and apply different

production methods on different conditions. It can be helpful to know any errors are there and also helps in to look after what is right and wrong to experiment and make best way to make correct decision.

- AI-Enhanced Standard Operating Procedures—Artificial intelligence is used to update the real time data. Past data would be used by AI for enhancing standard operating procedures. It also helps improving quality and efficiency for consistent improvements.
- Collaborative Platforms for Global Teams—This platform helps the teams to work together from different places. Every one will come to know what work is done by whom it ensures to share the information and ideas of members. It speeds up the work because everyone is working on one platform.

2. Data Analytics— with help of past data and trends they would predict the problems in the supply chain. They use AI and machine learning.

Better Operational Efficiency—The operations provided by them are more efficient. They have reduced time also in making the products.

Better Product Development: They have the customer data they will easily recognise needs and wants of the customer and build their product.

Handling Risks Better: Predictive analysis helps them to take risks for their products before they launch into the market.

3. Digital Marketing Strategies at Dr Reddy's Laboratories

- Multi-Channel Marketing Approach-They have used different Multi channel marketing approaches like SEO, email, Socialmedia platform to connect with the patients and health professionals.
- Real-Time Consumer Interaction-At the time of pandemic they have used this Real time feedback. This helped them address the concerns about the availability of drugs fastly.It has also improved customer satisfaction and kept the company going in the competitive market.
- Engagement with Healthcare Professionals
- Customer Retention and Engagement-

Benefits of Digital Transformation in the Pharmaceutical Industry

- 1.It helps in taking decisions by using different tools for analyzing the data.It can help the patients and give proper treatment.It is also helpful for the drugs in the market and reaction of drugs by the patients.
- 2.Market responses are very quick. By using digital tools it will help the products to sell in the new places very quickly.
- 3.Smooth flow of operational efficiency
- 4.Innovation by using cloud technologies to launch new drugs in the market
- 5.Apps and devices which keep the patients connected with the health professionals
- 6.Block chain can be used for privacy of the patient information and also making track on drugs.

V. SUSTAINABLE TECHNOLOGIES USED IN DR REDDY LABS

- 1.Green Chemistry-It is used in API production they follow ESG principles they are concentrating more on API(Active pharmaceutical Ingredients) which are environmentally friendly.It has achieved zero liquid waste and water positive company
- 2.Digitalization and industry 4.0-It has been enhanced with latest technologies it has turned into zero paper waste is helpful for decision making.
- 3.Water Conservation Technologies-It has been using watershed management ,Reuse of water,water efficiency ,Rain water harvesting in 2025 they have achieved water positive company reduction in usage of water .
- 4.Renewable Energy Adoption:Adopting cloud technologies for clean and green energy,windmills

,solar panels and other sources used for generating electricity

5.Environmental monitoring system-Different technologies are used to monitor the environmental issues like pollution measures,GHG emissions,carbon footprint and many more can be kept on track by using the latest technologies.

VI. CONCLUSION

This studies briefly explains about the Dr Reddy laboratories contribution in CSR in education ,livelihood,environment sustainability,health.Being a pharma company Dr Reddy laboratories always followed the frames work of sustainable development.It is one of the Zero waste discharged company and also less usage of water.They make their products with Recycled materials.One of the pillar of their company is Sustainable development.It has been giving its services from past 40 years.It is one of the company where it will follow latest technologies to upgrade their business.They have adopted different technologies like data analytics,Digital transformation.Different AI tools,machine learning many more for the growth of their company.They always retain their customers with good quality of products and services.There are some technologies like green chemistry,Water conservation technologies,water shedding.Rainwater harvesting,Renewable energy by cloud technology,solar panels generating electricity.This study explored into the technologies used in business for sustainable development and role of CSR in sustainable Developemnt.

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