E-Waste Recycling in Delhi NCR

Mrs. Deepika¹ and Dr. Mayank Jindal² ¹Research Scholar, School of Business Management, CSJMU, Kanpur, INDIA ²Assistant Professor, School of Business Management, CSJMU, Kanpur, INDIA

²Corresponding Author: mayankjindal.512@gmail.com

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ABSTRACT

When an electronic product is thrown away after its useful life is over, it produces electronic trash, or e-waste. Ewaste is produced in vast quantities as a result of the consumption-driven society and the quick development of technology. Recycling is the systematic gathering and treatment of items that would otherwise be discarded as waste, with the purpose of transforming them into fresh goods. Recycling can have positive impacts on your neighborhood, the economy, and the environment. The main objective of this paper is to describe the waste recycling companies in India. One primary motivation for recycling is to reduce expenses associated with waste collection and waste management. This also aids in mitigating the adverse environmental consequences of landfill garbage. To achieve the objective of this paper we have analyzed two big companies. In the analysis we have taken the company's introduction, their founder and location, type of waste they are recycling and products they are producing.

Keywords-- E-Waste, Waste Recycling, Waste Recycling Companies, Waste Recycled Products

I. INTRODUCTION

As required by the E-waste Management Rules, 2016, the Central Pollution Control Board (CPCB) calculates the amount of e-waste generated nationally using data from producers on nationwide sales as well as the average lifespan of notified electrical and electronic equipment (EEE). The following lists the amount and proportion of e-waste that the CPCB reports was generated during the last three years from the twenty-one (21) forms of EEE that were notified under the E-Waste (Management) Rules, 2016 and then collected, dismantled, recycled, or disposed of in the nation:



Source: PIB 2023, Delhi from Ministry of Environment, Forest and Climate Change website

Hazardous compounds like lead, mercury, cadmium, and other poisonous substances can be found in electronic waste. Improper handling of these materials can lead to contamination of soil, water, and air, which can be extremely dangerous for human health and ecosystems. Ewaste is the most rapidly growing waste problem in the world and everyone is looking for an e-waste solution. Like in Tokyo Olympics, Olympic medals were made of old electronic devices. According to the official website of the Tokyo Games, it is the first time ever in Olympic history that the medals were made by recycled metals and have involved ordinary citizens in their production. Tokyo Medal Project has been launched and kept running for two years to collect enough recycled waste to produce the medals. The campaign called on the public to donate obsolete electronic devices for recycling. There are many companies in Delhi NCR which are trying to find solution for E-Waste.

1. Attero Recycling Private Limited

> Introduction

Attero is a firm that manages e-waste. They recycle obsolete technology and turn them into clean energy. Technology is utilized to discard end-of-life devices at their waste recycling business. Attero can reclaim approximately 98 percent of the metals it produces using its cutting-edge method. They are also the biggest tin manufacturers in India.

Data protection, takeback measures, disposal, reuse, reverse supply, and increased preferred provider conformance are among their offerings. Acer, LG, OPPO, Whirlpool, Nexcharge, and others are among their clientele.

> Founder and location

Its CEO and co-founder is nitin gupta from Noida.

> Recycled waste

Electronic waste

Products/Services

The company has been working on methods for recycling different types of li-ion batteries, and it has been awarded 38 international patents for recycling technology that it created in India.

2. GreenZon Recycling Private Limited

> Introduction

In order to recycle and dispose of end-of-life electronic products in an environmentally responsible manner with a Zero Landfill Policy, GreenZon Recycling Pvt. Ltd. (GRPL) was founded in 2016.

> Founder and Location

Directors of Greenzon Recycling Private Limited are Zeeshan Malik and Chand Malik from Delhi.

> Recycled Waste

Their cutting-edge method of disposing of ewaste sets them apart and ensures dependability. They offer a thorough e-waste removal service. Simply arrange for a collection with their call center, and they will arrive at the designated location equipped with the necessary equipment and machinery to securely transport all your electronic garbage. These are carefully moved to their nicely furnished facility in Sikandrabad, Uttar Pradesh. To handle the logistics, they have a fleet of specialized vehicles and reliable channel partners.

> Products/Services

The procedure entails the gathering of e-waste, meticulous sorting overseen by professionals, and conveyance in specially designed and equipped vehicles. After that, the trash is disassembled and priceless materials are found again. Sometimes the processed waste or disassembled parts are shipped in order to recover valuable metals.

II. LITERATURE REVIEW

Singh (2020), <u>E-waste Management in India:</u> <u>Challenges and Agenda</u>, There are regulations governing the appropriate collection and authorized recycling in India. The implementation of these regulations, nevertheless, requires substantial refinement. The recycling capacity of authorized centers for the enormous quantities of electronic refuse that the country generates is negligible. It is necessary to realign the function of the informal sector within the recycling industry in a manner that allows it to offer economically viable opportunities while maintaining environmental sustainability and favourable working conditions.

Marc J. Rogoff (2013), <u>Solid Waste Recycling</u> and <u>Processing</u>, this book provides the ways of waste management and recycling. This book covers all aspects of solid waste processing, volume reduction, and recycling, encompassing typical recyclable materials (paper, plastics, cans, and organics), construction and demolition debris, electronics, and more. It includes techniques, technologies, and programs to help maximize customer participation rates and revenues, as well as to minimize operating costs.

Agarwal, Chaudhary and singh (2015), Waste Management Initiatives In India For Human Well Being, this paper focuses on the current practices for various waste management initiatives taken in India for human wellbeing and give some suggestions for the same. waste is inevitable and they give an insight into waste and waste management. We can dispose the waste or reuse the waste and can earn money through proper management. They found that Key issues and challenges include lack of collection and segregation at source, scarcity of land, dumping of e-waste, lack of awareness, etc.

Esposito,tse and soufani(2016) in thier studies "<u>Companies Are Working with Consumers to Reduce</u> <u>Waste</u>", they states that As consumers, we are very wasteful. Annually, the world generates 1.3 billion tons of solid waste. This is expected to go up to 2.2 billion by 2025. The OECD countries are responsible for 44% of waste. they found out that there are enormous opportunities also lie with e-waste and concluded that Companies play a big role in creating a circular economy, in which value is generating less from extracting new resources and more from getting better use out of the

resources we already have—but they must also get customers engaged in the process.

III. CONCLUSION

Maintaining a healthy future and protecting the environment depend on sustainable e-waste management. E-waste can be made less damaging by reducing, reusing, and recycling electronic equipment and components. Businesses may reduce emissions and preserve natural resources through cooperation, education, technology breakthroughs, and international cooperation.

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