



# A Research Study Of Sustainable Packaging in Pharmaceutical Manufacturing Units

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# Introduction

## **Sustainable Packaging**

**Sustainable packaging is the type of packaging in which it provides no harm to the environment**

**sustainable packaging is essential for maintaining the purity and quality of a drug product while also conveying information about its identity and, in some circumstances, dosing instructions**

# Objectives

- To study the integrative view of packaging in pharmaceutical industries to corroborate the true sustainability of pharmaceutical packaging.
- To study the new solutions for sustainable packaging.

# Research Question

- Evaluate the pharmaceutical manufacturing units to study the importance of sustainable packaging and its existence in the pharmaceutical companies.

# Methodology

## **Sample Design**

The respondents to the study were from the pharmaceutical manufacturing units, particularly from the packaging department, and it used a quantitative research methodology. Data was gathered from pharmaceutical production facilities across all India.

## **Data Collection**

I have reached out to folks who work in the packaging and pharmaceutical production departments. Some of them I have met through referrals, and I have done so through LinkedIn.

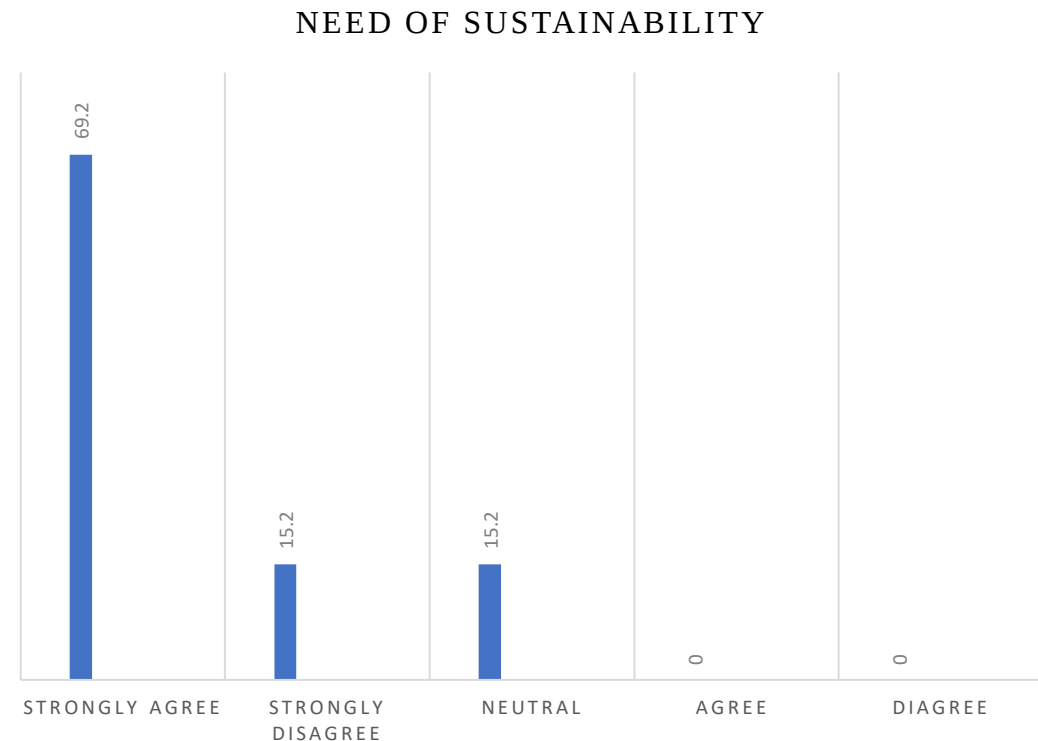
## **Sample Size**

In order to find out about issues and get an explanation on the issue, I gathered data from 33 manufacturing units across most of India

# Result and Discussion

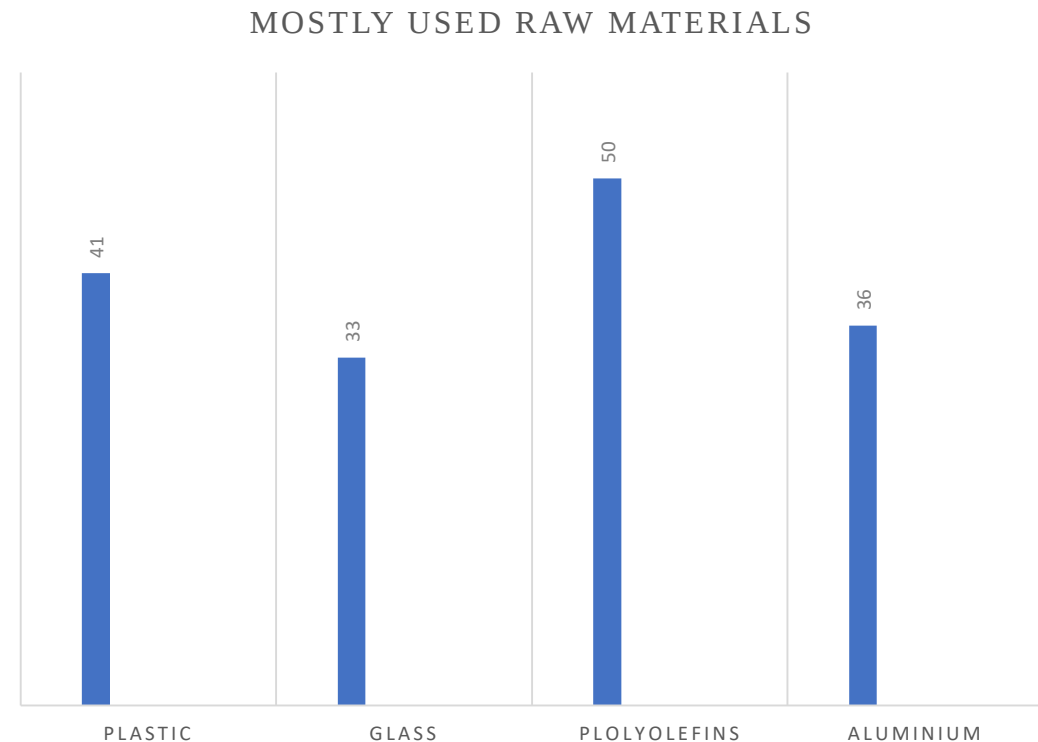
- Need Of Sustainable Packaging

According to the secondary data, I found that among the responses 69.7 % of manufacturing units agreed that sustainable packaging in the pharmaceutical manufacturing industry is required. And 15.2% disagreed with sustainable packaging and 15.2% were neutral toward sustainable packaging.



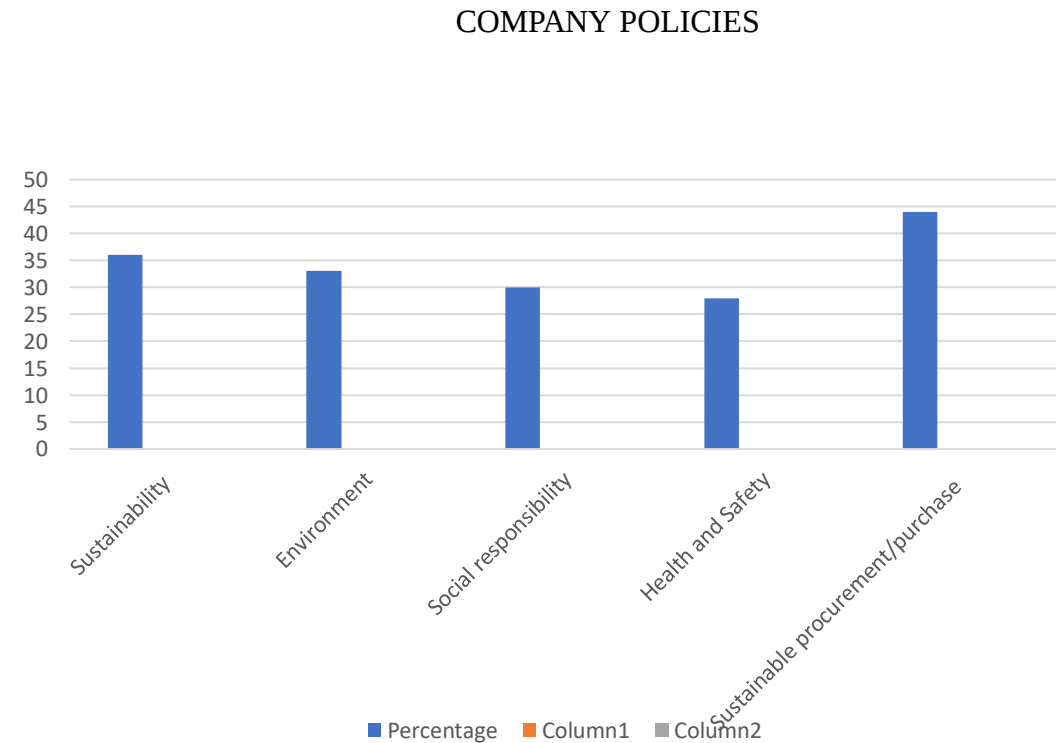
# Raw Materials Used In Packaging

- According to the secondary data from the manufacturing units, it was found that 80% of the packaging of medicines is made use of plastics (PET, PVC, PP, etc.). About 41% of manufacturers relied entirely on plastics for packaging and almost 42% used them occasionally. Glass was used by 33% of the manufacturers. It is seen that glass is used less frequently as compared to plastics for packaging. Polyolefins are used up to 50% of the time, and Aluminium finds applications roughly 36% of the time



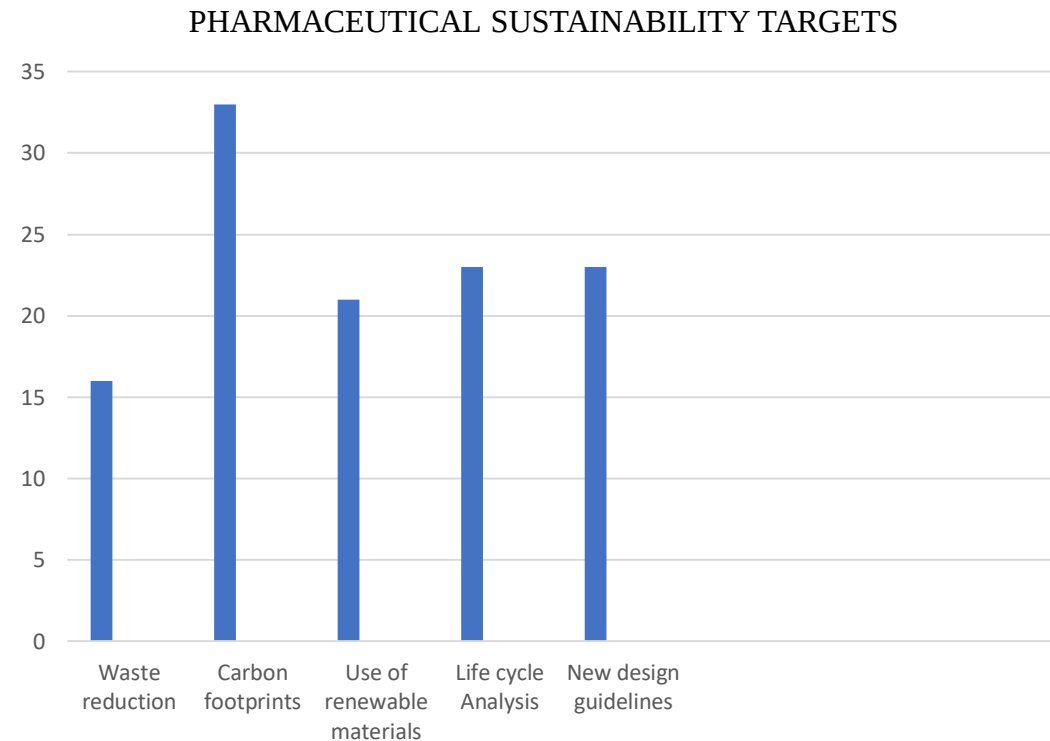
# Company Policies

- As per the secondary data, it was noted that 36% of pharmaceutical manufacturing units focused on sustainable policies. About 33% of these units cared for the environment, and 28% prioritized health and safety.



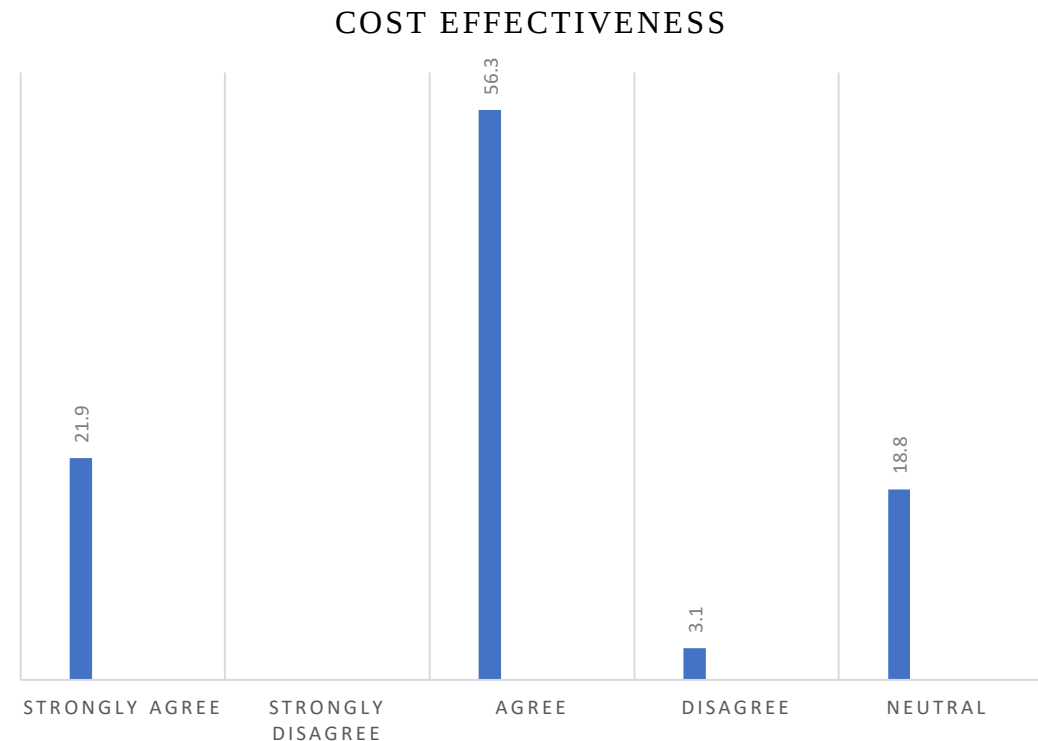
# Pharmaceuticals Sustainability Targets

- From secondary data, it was observed that 16% of manufacturing units focused on waste reduction. Approximately 33% of these units worked towards reduced carbon footprints. There was a sizable share of 21% who focused on the use of recyclable materials. Up to 23% of the units focused on new design guidelines for packaging and life cycle analysis each.



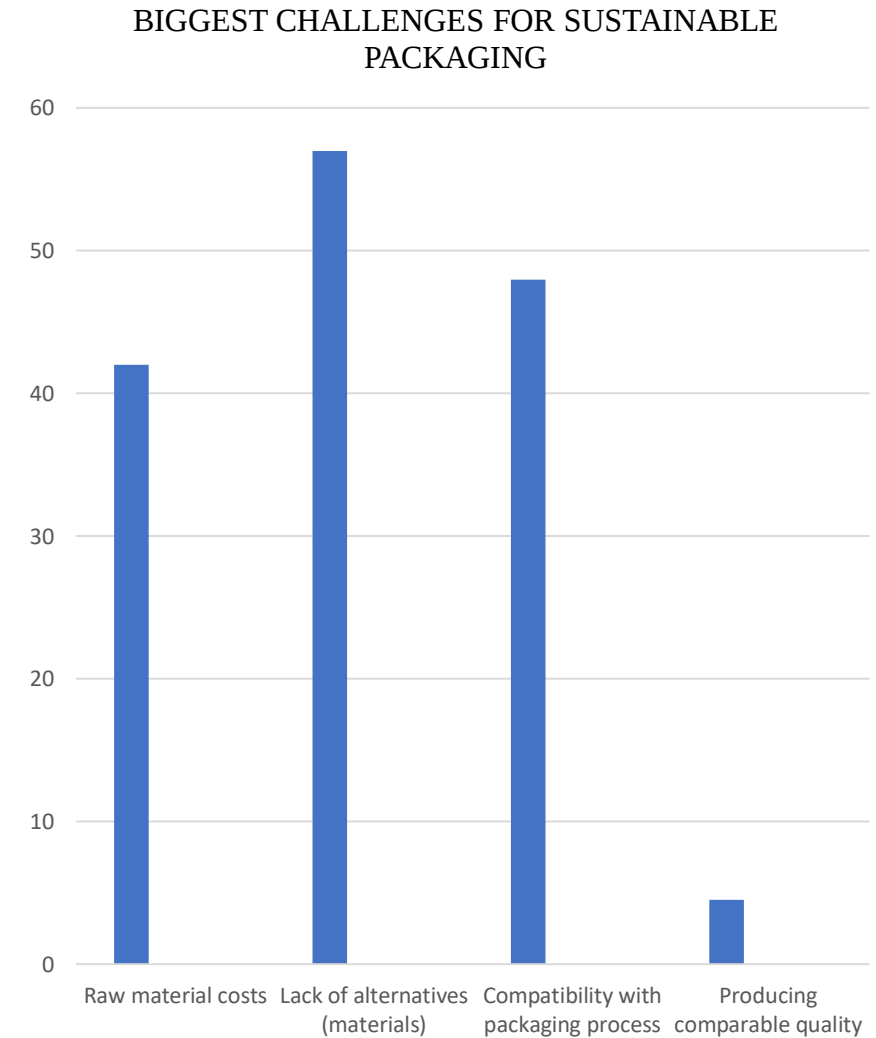
# Cost Effective

- As per the data, 56.3% of respondents have agreed that it must be cost-effective, but its applications and implementation are still under the R&D phase. Cost-effectiveness was a major concern for about 21.9% of manufacturing units who strongly agreed about the same, while 18.8% were still unsure and 3.1% disagreed with the idea. They believed that sustainable packaging would be expensive as compared to conventional packaging.



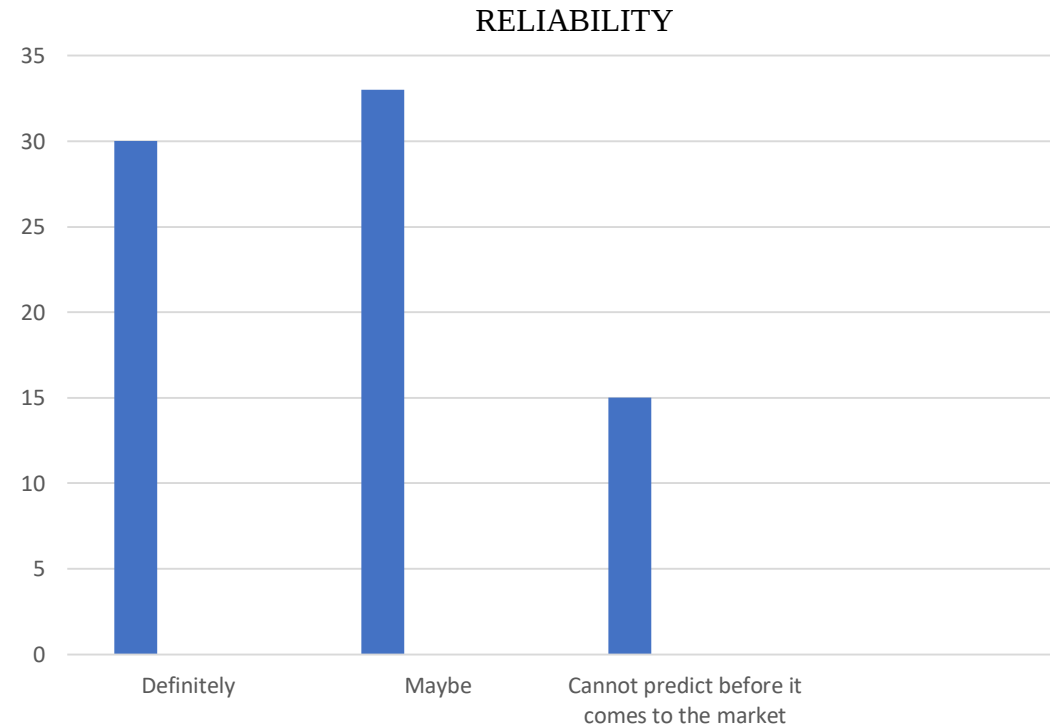
# Biggest Challenges for Sustainable Packaging

- As per the data, 57% of pharmaceutical face the problem of a lack of alternatives materials for the packaging and 42% of units face the challenge of costs of raw materials and 48% of challenging the compatibility with the packaging process, and 36% of units not able to produce comparable quality products.



# Sustainable Packaging is reliable as compared to Conventional Packaging

- About 30% of units believe that sustainable packaging will be reliable. However, 33% are unsure whereas 15% can't predict until and unless it is confirmed, and the related studies give better results regarding sustainable packaging.



# CONCLUSION

- According to secondary statistics, the pharmaceutical business cannot currently function sustainably on its own. It would require a step-by-step process to accomplish
- The best course of action would be to find suitable alternatives and strike a balance between several factors like cost, compatibility, simplicity of refusal, etc.
- Sustainable packaging may one day be dependable, according to numerous industrial businesses. In contrast to this 30%, 48% of people say they can't forecast unless sufficient research has been done that is tailored to their particular products
- The conventional packaging industry is predicted to reach USD 178.1 billion by 2026 at a CAGR of 10.4% until then



THANK YOU