



ASSESSING RECYCLABILITY OF VARIOUS SNACK PACKAGINGS AVAILABLE IN A SUPERMARKET



INTRODUCTION

Recyclable food packaging is one of the most efficient ways of reducing plastic waste preventing it from ending up in landfills, oceans and the environment, thus addressing the global issue of plastic pollution. Recycling requires less energy compared to producing new materials from scratch. This contributes to reducing greenhouse gas emissions. The Department of climate change, energy, the environment and water Australia estimates that by year 2050, the amount of plastic in our oceans will outweigh fish. National Waste Policy Action Plan 2022 targets 70% of Australia's plastic packaging being recycled or composted by 2025.

OBJECTIVE

Objective of this study is to check the recyclability of various snack packaging available at a supermarket that includes chips, biscuits and crackers, and chocolates and lollies.

HYPOTHESIS

It is predicted that the percentage of recyclable snack food packaging available at a supermarket is more than 50%.

METHODOLOGY

We visited one of the largest Coles supermarkets in Adelaide and collected information about recyclability of three categories of snacks - biscuits and crackers, chocolates and lollies, and chips in our notebook. We checked for the sign of disposal or any written information about the way to dispose of the packaging of the snacks following Australasian Recycling Label(ARL) guidelines. We entered data as recyclable, non recyclable or not mentioned in front of each brand of snacks in our notebook. There were a few packages where the customer was advised to scan the QR code to check the information on the way of disposal of the packaging that we did to complete the data. We transferred all the data in an excel sheet and perform the data analysis.

DATA ANALYSIS/RESULTS

We compiled the result as following

Categories	Total Number	Recyclable	Non recyclable	Not Mentioned
Total Snack packets	194	119	54	21
Biscuits and crackers	65	39	19	07
Chocolates and lollies	75	44	22	09
Chips	54	36	13	05

The results show that the recyclability of snack packaging is 60% for Biscuits and Crackers, 58.7% for Chocolates and Lollies, and 66.7% for Chips.

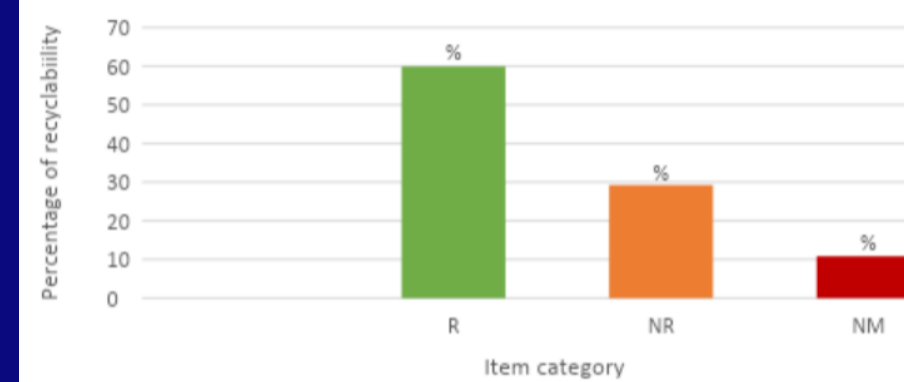
Of the total 194 snacks packets,119 (61.3%) packets have recyclable packaging, 54 (27.9%) packets have non recyclable packaging and 21 (10.8%) packets have no mention of the method of disposal.

The results prove the hypothesis that the percentage of recyclability of snack packets in a supermarket is more than 50%. The result is inclusive of individual categories of snacks in this study.

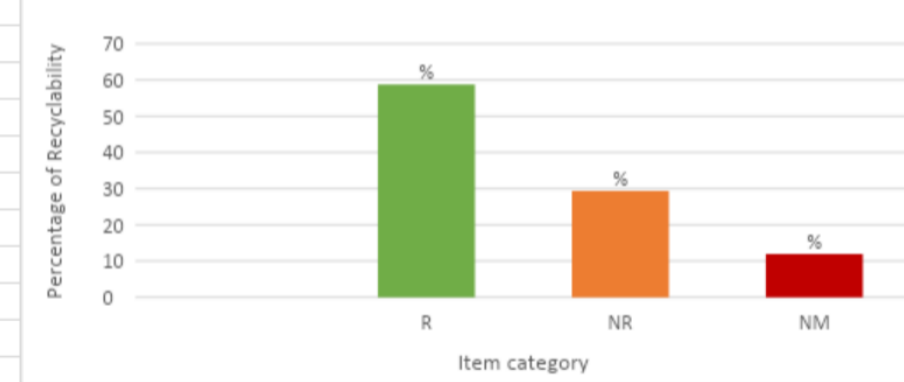
DISCUSSION

With the results showing about 60% of snack packaging is recyclable, the study suggests that the government and product companies are focussed on achieving the target of plastic packaging to be 70% recyclable by year 2025. Scanning the QR code and choosing one of the largest supermarkets led us to collect data information about the maximum number of snack products contributing to the reliability of data. Proof checking of data at the time of transfer of data from the notebook to the excel sheet contributed to the validity of the data. However there are a few limitations in the study. The study does not involve plastic packaging for other food and non food items that involve plastic packaging. The study does not involve collecting data from other supermarkets such as Woolworths, Aldi, Foodland etc. and hence its influence on the change of result is unknown. Inorder to achieve National goal of having 70% of recyclable plastic packaging by 2025, Government should direct product companies to follow the advisory on mandatory display of customer information on food packaging disposal and also mandatory laws on manufacture of recyclable packagings. There should also be focus on customer education on the correct method of disposal of plastic packaging of snacks.

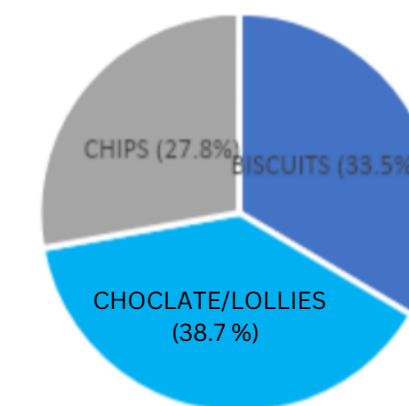
PERCENTAGE OF RECYCLABILITY OF BISCUIT PACKAGING



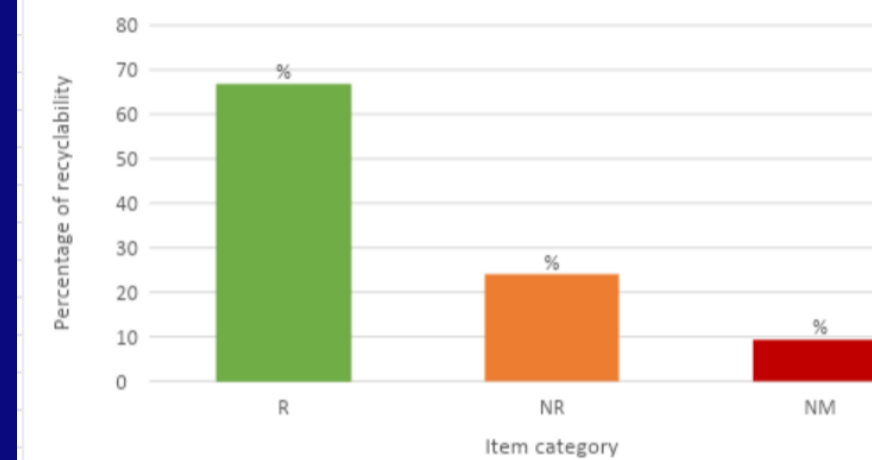
PERCENTAGE OF RECYCLABILITY OF CHOCOLATES AND LOLLIES PACKAGING



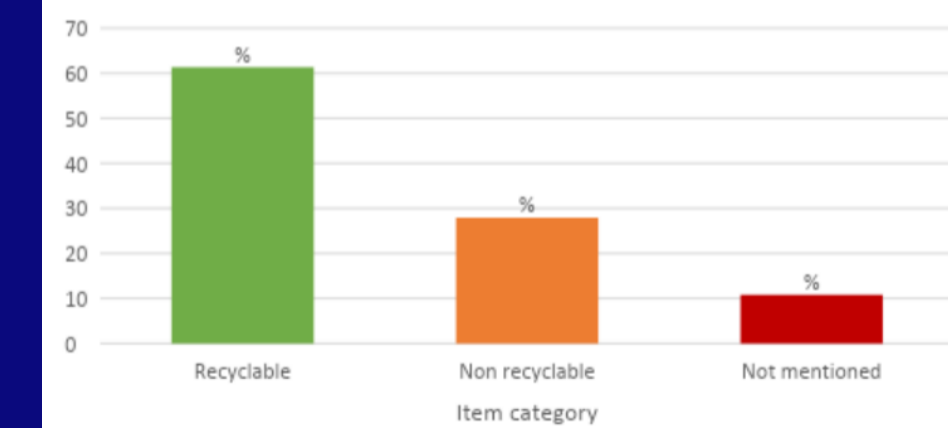
PERCENTAGE OF THREE CATEGORIES STUDIED



PERCENTAGE OF RECYCLABILITY OF CHIPS PACKAGING



PERCENTAGE OF RECYCLABILITY OF ALL ITEMS STUDIED



KEY R = Recyclable NR = Non Recyclable NM = Not Mentioned

CONCLUSION

The results prove the hypothesis that the percentage of recyclability of snack packaging in a supermarket is more than 50%. The result is inclusive of individual categories of snacks in this study. The study suggests that the Government and product companies are working together effectively to achieve the 70% target of recyclable plastic packaging by year 2025.

REFERENCES

Australian Government "Department of Climate change, Energy, the Environment and Water, National Waste Policy"(Canberra: Commonwealth of Australia, 2023)

Government of South Australia, Green Industries SA, Strategic Plan 2021-2025(South Australia:Government of South Australia,2021)