

# What motivates people to buy or not buy reusable water bottles?

Project 6 – Ironhack – july 2021

Lucie Fleury

# The Data

The dataset comes from a survey made on Google Form:

One survey aiming at people who don't have a reusable water bottle (8 questions)

One survey aiming at people who have a reusable water bottle (12 questions)

sample : 33 young adults in the Tech industry from Lisbon  
(a mix of workers and students )

# Sorting the data and data cleaning

Removing the Timestamp from the Google Form

Some answers were free text :

- Adjusting "Both" and "Both."
- Correcting spelling (bottle vs bottle)
- 1 wrong direction in the poll - deleted

Labels : to treat and categorize free text (**to do**)

ex: "plastic bottle" vs "water bottle"

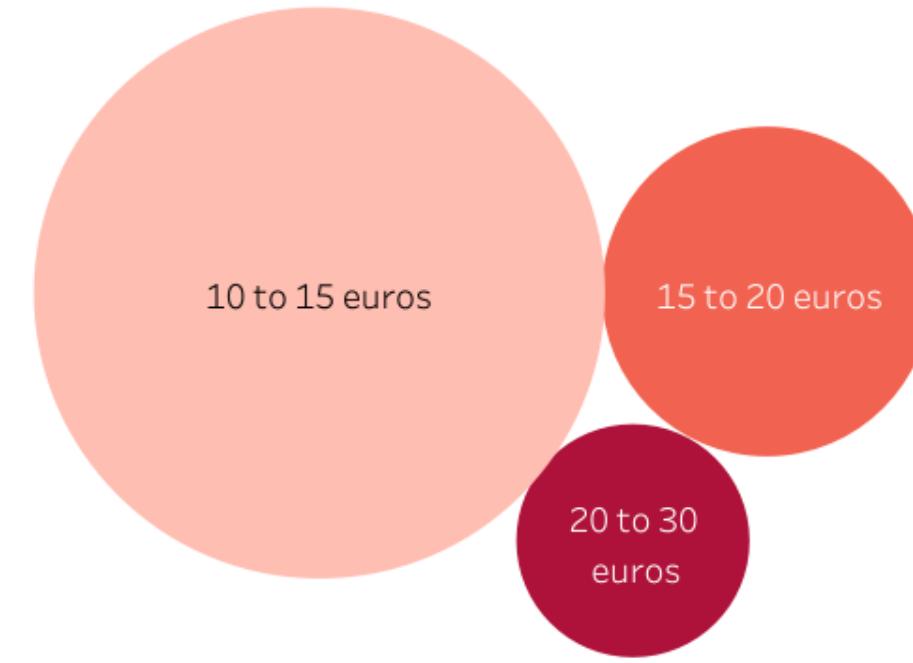
Some answers difficult to label ex: "because it is important"

# Reasons for not having a reusable bottle :

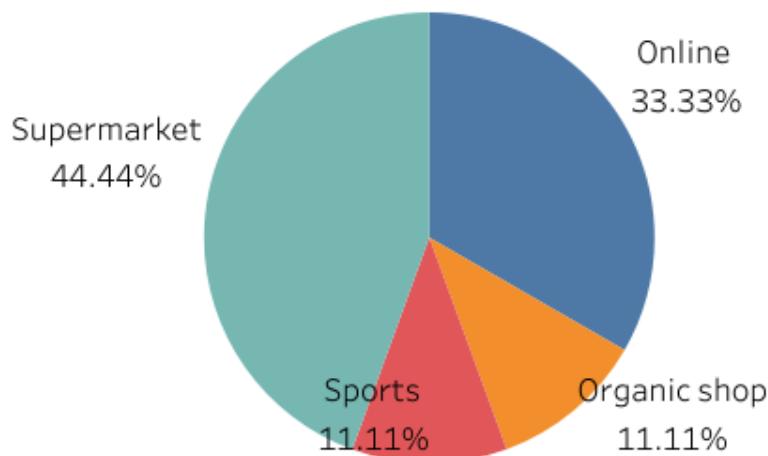
I have one but it's too heavy. Need to replace it	Lost it	Not any but maybe just having less things to carry with me	do not like plastic nor glass
I lose them			
Just not my thing.	i should buy it		

# Sample who does not own a reusable bottle

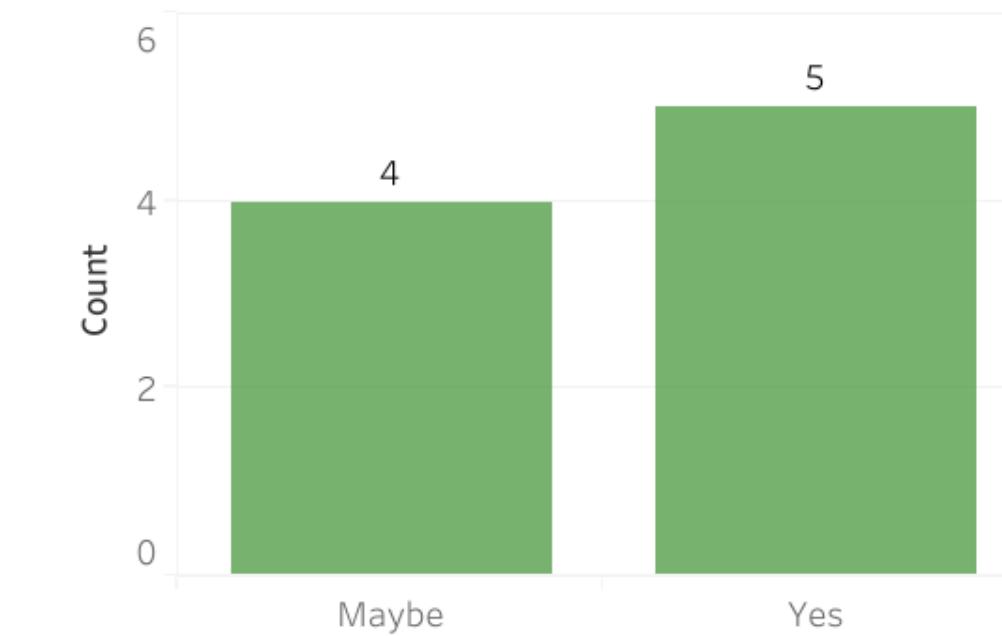
Willing to pay



Would buy where



Will be buying?



Price\_Range

- 10 to 15 euros
- 15 to 20 euros
- 20 to 30 euros

Material

- Glass
- Other (bamboo, ..)
- Steel

Buy\_Where

- Online
- Organic shop
- Sports
- Supermarket

Count of HAVE\_NOT..

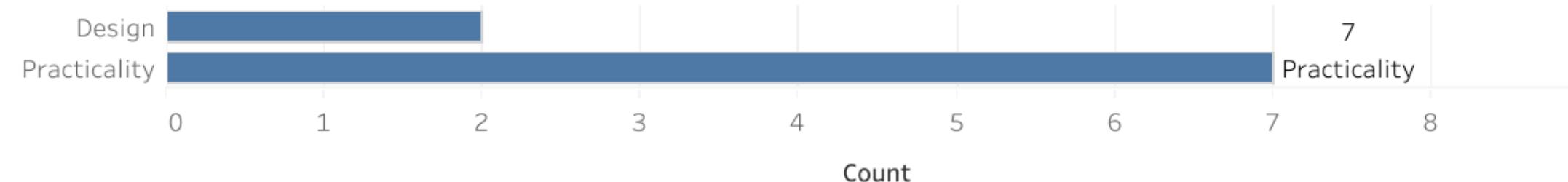
Habits



Wished Material



Design vs Practicality



# Review

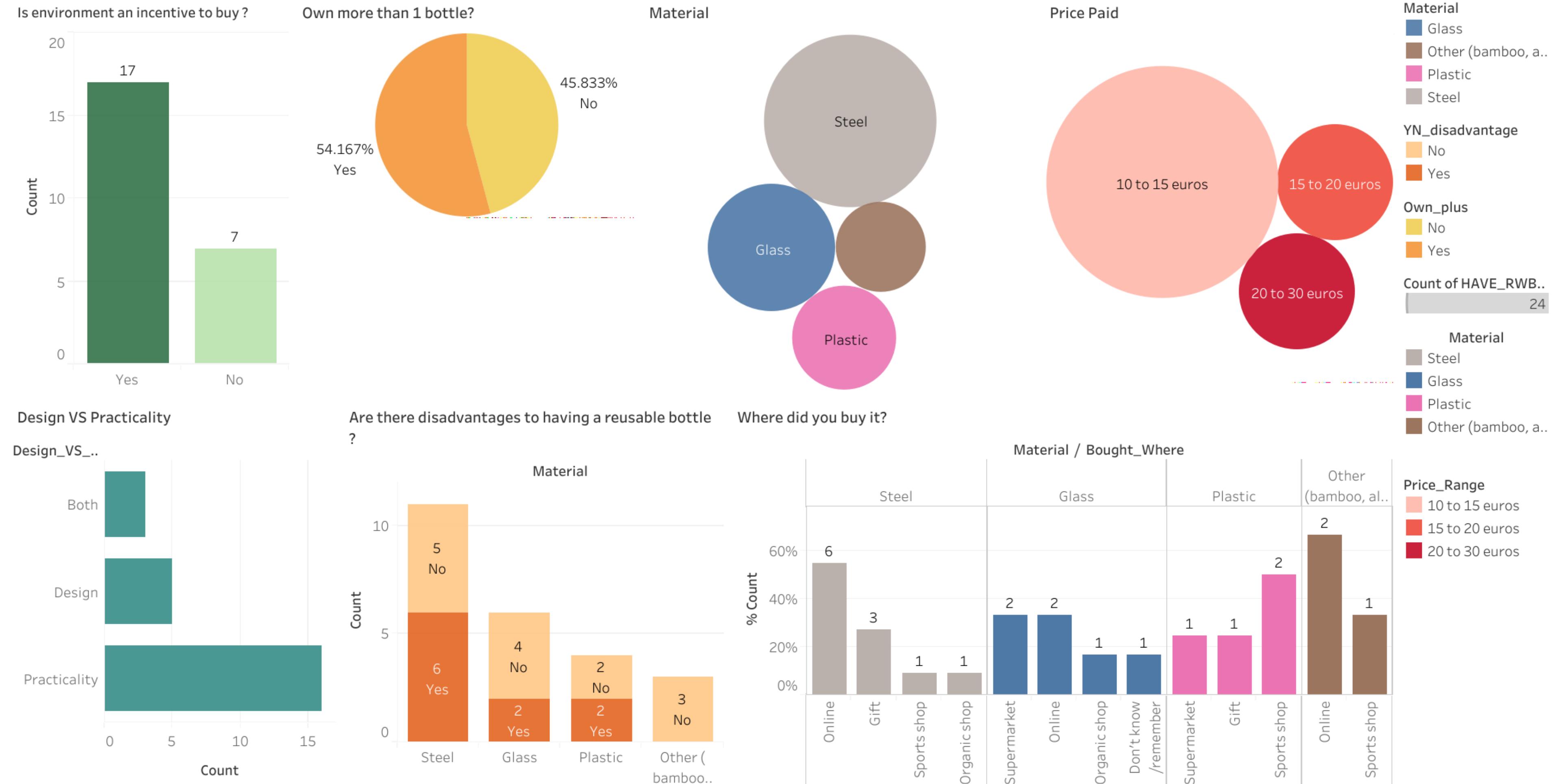
A good portion of people from the sample showed intention to buy in the future :

They are more likely go for low price range  
buy at supermarket or online  
favor steel or glass and practicality

Another portion seems content with their habit as it is part of their routine or don't want to buy an unnecessary item



### Sample of people who have a reusable water bottle :



# Why did you buy a reusable bottle?

## Reasons for buying

Because I think its important	It is more practical.	The 1st was an offer, the 2nd was because I wanted one in glass (to avoid as much as	To drink water during workout	To not waste plastic and because they are practical!	To reduce plastic waste, and keep water cool for a whole day while outside	To save the world
Because it helps the planet	It's made of Glass					
For the environment	Primarily, because of the environmental impact as the water in Barcelona is drinkable		To use it when I do sports	one time cost and reduce plastic	reduce waste, save money	sustainable reasons
I like to have always a bottle with me and not waste plastic, plus I can keep the initial	Sustainability	i was travelling				
I mostly drink tap water so it makes sense to have one	TO save plastic	it is beautiful and I don't need to buy more bottles	to avoid buying plastic bottles		to stay hydrated	
			to save the environment, or to help at least			

# Review

## Disadvantages

Can break	Heavy, difficult to keep water cold	It is a little bit hard to clean, so i would suggest the cleaning part can be improved	Just if you are not used to, you can forget it
Cleaning	I tend to forget bringing it...	Water temperature is usually not cold	
Glass weight. It is heavier than plastic.	If you go to a place with no way to refill it, you have to end up buying a disposable one.	you need to carry it always with you	

## Review

A good portion of people from the sample own more than one bottle :

They use them on daily basis (not shown in the Tableau - 100%)

They bought online followed equally by sports shop and receiving a gift

More prone to spend a bit more money and to also to look at designs

40 % of the sample experience some drawbacks (weight, deterioration, lack of structure to refill, losing or forgetting to bring it)

In the next slide, a certain amount of people would be interested in a bottle that keeps warm and hot drinks, easier to clean, leakproof

# Do you have technical requirements or improvements to suggest for reusable water bottles? (44% answered yes – here are the results)

## Technical

Definitely, yes to thermos so it keeps water at constant temperature. Otherwise, no other preference. Size wise, we have a few different sizes and that is also handy depending on where we are	I know they are just developing one with uv light inside to clean it from bacteria but yeah, it should have a system to clean it fast	Specially mold. Sometimes materials are not mold proof	being able to maintain liquids cold or hot for long periods of time/ 1L capability/ Handle to attach it easily to backpack while on strolls/ large mouthpiece for easy cleaning/ no plastic pieces that easily
Glass material to not change water molecules too much and preserve more the temperature	In my steel bottle im starting to see spots of rust, maybe it would be better just to have a high grade plastic.	cap size	steel is better than plastic
Hold hot/cold; lid shape; leak protection	Must have handle	hold cold/hot	

# Hypothesis testing

H0- Does having environmental concerns equates for individuals to possess a glass bottle?

H1- Do people who have glass bottles buy them because of environmental incentive ?

(statistic=0.8246211251235324, pvalue=0.42853661643356133)

Answer :pvalue indice > to 0,05

In this sample, we cannot reject the hypothesis.

# Hypothesis testing

H0- people with glass bottle related to having more than one bottle

H1-Do people who have a glass bottle own more than one reusable water?

Ttest\_indResult(statistic=-4.123105625617661, pvalue=0.0007103270462445615)

Answer :pvalue indice to 0,05

- Having more bottles is not different from glass and non glass bottle owners, we can reject the H0 on this sample  
we were expecting people who have glass bottle to own only one

# Recommendations

People who don't own a reusable bottle still represent a part of the market that it is worth investing in, however half of the people who own one also bought another or more.

It would be good to produce different products with different price range.

From the data, we can see that a portion of users is having issues with cleaning and leakage, and is also interested in more isothermal bottles.