# What is/are the **business question(s)** this project will answer?

1. What is the impact of discount sales on profits?
2. Are there any abuses of company policy regarding discounts leading to some financial loss?
3. How to improve discounts sales strategy (concerned segments and/or customers) to improve business efficiency?

# **What data will be used** to answer this question? **Is the data capable** of providing the information you are looking for?

## Data source:

To fulfil our mission, we will use a sample dataset representing the sales in the 4 regions of US. It is not an exhaustive dataset and we have around 5 000 rows.

## Data quality:

We have two kinds of information dispatched in 3 excel tabs and can join tabs thank to available primary keys.

The discrete data contains information on:

* Sales representative for each region,
* Customers information (localization, ID, name…)
* Products information (category, subcategory, ID, name)
* Order information (ID, date, and if the order has been returned)
* Shipping information (date, mode)

We also have numerical data:

* Applied discount
* Total sales in term of turnover and quantities
* Profits

This dataset will be enough to provide the requested information:

We can explore the data set and analyze the used of discounts by region, products, sales representative. The impact of the discounts on profits but also check if discounts and returned products are linked. That will help us answer our business questions about impact of discount on profit and highlight potential abuses by comparing region business practices.

## Data Timeliness

Our main issue is the freshness of the data set as it is an old one : 2011 – 2014. 6 years old

# **Who is the audience** of this visualization (to whom are these findings ultimately being presented)?

Audience:

1. Presenter: **Sylvia** **(Sales VP)** wants to improve inventory and distribution strategy based on numbers and trends. She wants to prepare a case for her sales strategy

* Do not like numbers
* Have to difficulties to extract meaningful findings from data

1. The company bord members. 15 persons on which we do not have any information. Top level managers. Generally, do not have a lot of time to take decisions, have some objectives in mind, do not want to dig into too much details
2. **Terence (Bord member)** has heard that discount policy is abused and wants to verify the impact of discounts on profit.

* Bad eyesight (large font for visualization)
* Financial oriented and aim for financial stability
* Very conservative
* Data driven decisions
* Expect quick, credible and clear updates on the situation

Ultimately, Terrence wants to improve business efficiency and end fraud and abuses on company policy.

Stakeholders: colleagues of our sales VP, she will use this visualization to present a case for her sales strategy

# **How will your findings ultimately be displayed?** Please list any special requirements of the user.

We will use slides and a printed summary to present our results:

* Short presentation of 5 to 7 minutes
* No details needed by the bord, only top-level facts
* Large font for visualization due to:
  + a bad eyesight of bord member
  + Large room with big screen
* **Static visualization** to:
  + Important number of attendees: 15
  + This is not an exploratory visualization but an explanatory one
  + High level decision aiming for efficiency
  + Very conservative
* Financial oriented
* Data driven decisions

The slides will be displayed on a large screen in a large room.

Kpi :

The KPI's I would use are

1- Profitability Ratio by region and category to see how well each region is profiting or not profiting in each sales category

2. - Discount Sales KPI to see how the value of sales relates to the discount given. I would put the values of sales into high/ average/low colors and then have the discounts by size

3. Profitability Ratio in relation to discounts - to show how discounts relates to profits. Does the discount affect the amount of profits? I would show the discounts by color on a bar graph or scatterplot.