

6.1 CHOCOLATE BAR RATINGS

Answers 6.1

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Project overview

Chocolate is my favorite candy not only me but many people around the world have enjoyed a chocolate bar once in their life; I will conduct an exploratory analysis (EDA) to find out more about chocolate qualities and where do they have the best cacao to produce chocolate. Also, if the quality and cocoa percent makes a better experience with the consumers.

Objective

Identify the countries that produce the best coca beans, knowing more about the relationship between Coca solids percentage and ratings and if the amount and selection of the ingredients matter to the quality of the taste.

Data Choice

In exchange for my previous selection that it was missing certain criteria, this is my second option, chocolate is my favorite candy, and I am very familiar with the types and percentages of cacao amount.

Context

Chocolate is one of the most popular candies in the world. Each year, residents of the United States collectively eat more than 2.8 billion pounds. However, not all chocolate bars are created equally! This dataset contains expert ratings of over 2,700 individual chocolate bars, along with information on their regional origin, percentage of cocoa, the variety of chocolate beans used and where the beans were grown.

Data Source

I will be working with the Chocolate Bar 2020 dataset from Flavors of Cacao, a dataset outlining over 2,700 types of plain dark chocolate bars, their ratings, ingredients, and tastes. The dataset used here have been acquired from [Rachael Tatman's Chocolate Bar Ratings](#) dataset on Kaggle.

The original ratings were compiled by Brady Brelinski, Founding Member of the Manhattan Chocolate Society. For up-to-date information, as well as additional content (including interviews with craft chocolate makers), please see his website: [Flavors of Cacao](#)

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You can feel free to

- Modify the Code
- Distribute It
- Use it for Commercial purposes

Variables:

- Company: Name of the company manufacturing the bar.
- bar_name: The specific geo-region of origin for the bar. untry of origin of the cacao beans
- reference_number: A value linked to when the review was entered in the database. Higher = more recent.
- review_date: chocolate bar review date
- cocoa_percent: Cocoa percentage (darkness) of the chocolate bar being reviewed.
- company_location: Manufacturer base country.
- rating: Expert rating for the bar.

Rating Scale:

5= Elite (Transcending beyond the ordinary limits)

4= Premium (Superior flavor development, character and style)

3= Satisfactory (3.0) to praiseworthy (3.75) (well made with special qualities)

2= Disappointing (Passable but contains at least one significant flaw)

1= Unpleasant (mostly unpalatable)

Acknowledgements

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- bean_type: The variety (breed) of bean used, if provided
- bean_origin: The broad geo-region of origin for the bean

Data Limitations and Ethics:

All the ratings are done by one person, so his biases over time, if present, could skew the data greatly.

That is why one of my first questions that I will be exploring is:

Is the cacao bean's origin an indicator of quality?

This question would make sure that the data in the data set is reliable across time.

Defining Questions:

1. What is the average rating by country of origin?
2. Where are the best cocoa beans grown?
3. Which countries produce the highest-rated bars?
4. What's the relationship between cocoa solids percentage and rating?
5. What are the top companies that produce most chocolate bars?
6. Is there a Correlation between coca percentage and chocolate ratings?
7. Is the cacao bean's origin an indicator of quality?
8. Which are the most common ingredients used?
9. What percentage of cocoa has the highest rating?

Hypothesis:

1. If the cocoa percentage is high, then the better the rates they received?
2. If there are more ingredients in a chocolate bar, the higher the ratings?
3. If bean of origin is based the cocoa, then the better the ratings?