**Global Ramen Brand Insights**

**1. Title**

**Global Ramen Brand Insights: Analysis and Visualization of Global Ramen Brand Trends**

**2. Abstract**

The *Global Ramen Brand Insights* project aims to analyze ramen brands and their products worldwide, extracting key insights on their performance, customer preferences, and market trends. This report covers the full process from data cleaning and exploration to advanced analysis and visualization. The findings provide a data-driven understanding of the ramen market, highlighting popular brands, product ratings, and global consumer behavior.

**3. Introduction**

**Background**: Ramen, a popular noodle dish, has gained global popularity, with various brands producing different flavors and styles. Understanding customer preferences and brand performance in the ramen industry is crucial for businesses and marketers in this competitive space.

**Objective**: The project seeks to:

* Analyze global ramen brands based on customer ratings.
* Identify top-performing brands and products.
* Visualize trends by region, brand, and product type.
* Offer insights into consumer preferences in the ramen market.

**Tools**:

* **SQL Server**: Used for data analysis and cleaning.
* **Power BI**: Used for creating visualizations.
* **GitHub**: Used for sharing the project and documentation.

**4. Dataset Description**

**Dataset Source**: Kaggle - Ramen Ratings dataset.

**Dataset Summary**:

* **Columns**:
  + Brand
  + Variety
  + Style (e.g., cup, pack, etc.)
  + Country
  + Stars (ratings)
  + Top Ten (year)

**Data Cleaning**:

* Handle missing values.
* Standardize country names.
* Remove duplicates.
* Format ratings (e.g., converting 'Unrated' to null).

**5. Data Cleaning and Preprocessing**

**Steps**:

* **Step 1**: Import the raw data into SQL Server.
* **Step 2**: Check for missing values and inconsistencies.
* **Step 3**: Remove duplicates and handle any outliers.
* **Step 4**: Standardize the categorical data (e.g., ensure all country names are consistent).
* **Step 5**: Convert ratings data to numerical values where necessary.

**SQL Queries**:

* Provide sample queries for cleaning, such as:

SELECT \*

FROM Ramenreviews

WHERE stars = 'Unrated';

UPDATE Ramenreviews

SET stars = NULL WHERE stars = 'Unrated';

**6. Data Exploration**

**Objectives**:

* Explore the dataset for insights such as:
  + Which brands have the highest ratings?
  + What are the most common ramen styles?
  + How do ratings differ across countries?

**Key Explorations**:

* **Descriptive Statistics**: Analyze the distribution of ratings.
* **Top Brands**: Identify brands with the highest average rating.
* **Country Analysis**: Compare ratings and brands by country.

**Visualizations**:

* Bar charts for top ramen brands.
* Pie charts for ramen styles distribution.
* Heatmaps for ratings by country.

**7. Analysis**

**Key Analytical Steps**:

* **Trend Analysis**:
  + Identify the trends of top-performing brands over time.
  + Analyze changes in consumer preferences based on brand ratings.
* **Geographical Insights**:
  + Study brand popularity by country.
  + Visualize country-wise distribution of ramen brands.

**SQL and Visualization**:

* Example query to calculate top brands:

SELECT Brand,

ROUND(AVG(Stars), 2) as AvgRating

FROM Ramenreviews

GROUP BY Brand

ORDER BY AvgRating DESC;

* Visualizations of top 10 ramen brands globally.

**8. Visualization**

**Visualization Tools**:

* Use **Power BI** to create a dynamic dashboard.

**Visuals**:

1. **Top 10 Brands**: Bar chart showing the highest-rated ramen brands.
2. **Country-wise Distribution**: Map displaying ramen production by country.
3. **Ramen Styles**: Bar chart breaking down the styles (cup, pack, etc.).
4. **Trend Over Time**: Table showing the top 10 ramen brands by year.

**9. Insights and Findings**

Summarize the key insights gathered from the analysis:

* **Top Brands**: List the top 6 ramen brands based on average ratings.
* **Popular Countries**: Countries where ramen is most highly rated.
* **Consumer Preferences**: Preferences for ramen styles (cup, pack, etc.).

**10. Recommendations**

Based on the insights, provide actionable recommendations for businesses, marketing teams, and stakeholders in the ramen industry:

* **Brand Focus**: Brands that consistently rank high in consumer ratings should leverage their positive reputation by expanding into more regions where ramen consumption is high.
* **Product Development**: Brands should consider focusing more on specific ramen styles (e.g., cup or pack) that have shown higher consumer preferences in certain countries.
* **Market Expansion**: Brands from countries with the highest average ratings should explore international expansion into regions where demand for ramen is growing.
* **Marketing Strategies**: Marketing campaigns should be tailored based on regional preferences. For instance, countries favoring certain flavors or styles can be targeted with localized marketing efforts.
* **Product Innovation**: Analyze the highest-rated product varieties and introduce new flavors or styles that mimic the features of top-rated items.

**11. Conclusion**

Summarize the importance of the findings for stakeholders in the ramen industry. Highlight how the insights provide a deeper understanding of brand performance and customer preferences across different regions, with the potential to influence business and marketing strategies.

**12. References**

List of resources, including:

* Kaggle Dataset Link.
* SQL queries used in data cleaning and analysis.
* Tools and libraries used in the analysis (SQL Server and Power BI).

**13. Appendix**

Include any additional resources like:

* [Full SQL queries](https://github.com/Bless-Dimeji/Global-Ramen-Brand-Analysis/blob/main/Ramen%20Data%20Query.sql).
* Data dictionary for the dataset.
* Screenshots or links to [dashboards](https://github.com/Bless-Dimeji/Global-Ramen-Brand-Analysis/blob/main/Ramen%20Review%20Dashboard.pbix).