**CHOCOLATE BAR RATINGS REPORT FROM 2006 TO 2017**

**DATA PREPROCESSING**

1. The beanType column had over 40% of missing data hence was not included in my analysis.

2. ReviewDate Column – Changed whole number datatype to text datatype.

3. Rating Category

* 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)

4. Cocoa Percentage Category

* <60% = Low
* 60% - 75% = Medium
* 75% - 90% = High
* >90% = Rich

**TOOL USED**

Power BI – For analysis and visualization

**Questions**

1. What are the leading companies in chocolate production in terms of total rating?

2. What percentage of cocoa is common among the top-rated companies in chocolate production?

3. Which country leads in chocolate production globally?

4. What is the location of the company leading chocolate production globally?

5. Where are the best beans grown in terms of total rating?

6. What are the dominant ratings in the top bean origins?

7. What are the leading chocolate bar names in terms of total rating?

8. What is the dominant percentage of cocoa in the top bar names?

9. What are the dominant ratings in the top bar names?

10. Is there a correlation between percentage of cocoa and ratings?

11. What is the overall trend of ratings by year?

**FINDINGS**

1. What are the best companies in chocolate production in terms of total rating?

* Soma emerges as the company with the highest total ratings of chocolates globally followed by Bonnat and Fresco.

2. What percentage of cocoa is common among the top-rated companies in chocolate production?

* All top 3 companies are associated with medium percentage of cocoa in the production of chocolates.

3. Which country leads in chocolate production globally?

* USA is the leading producer of chocolates globally followed by France and Canada.

4. What is the location of the company leading chocolate production globally?

* Soma is located in Canada

5. Where are the best beans grown in terms of total rating?

* The best beans are grown Venezuela

6. What are the dominant ratings in the top bean origins?

* Most of the beans from the top origins are rated as Satisfactory ie. a rating of 3.0

7. What are the leading chocolate bar names in terms of total rating?

* Madagascar chocolate emerges as the top-rated chocolate followed by Peru and Ecuador chocolates

8. What is the dominant percentage of cocoa in the top 3 bar names?

* The most dominant percentage of cocoa across the top 3 chocolates is the medium percentage of cocoa ie. between 60% and 75% of cocoa

9. What are the dominant ratings in the top bar names?

* Most chocolates were rated to be satisfactory

10. Is there a correlation between percentage of cocoa and ratings?

* Chocolates with higher ratings usually had low percentages of cocoa, hence no correlation.

11. What is the overall trend of ratings by year?

* Chocolate ratings increased from 2006 to 2015 with a decline from 2015 to 2017.

**RECOMMENDATIONS**

1. Given that top-rated companies are associated with medium percentages of cocoa in their chocolates, chocolate producers can focus on developing products that align with this preference.

Experimenting with different cocoa percentages within the medium range can help cater to varying consumer tastes.

2. Given that the best beans are grown in Venezuela, chocolate producers should prioritize sourcing cocoa beans from this region to ensure the quality and flavor profile of their chocolates meet consumer expectations.

**CONCLUSION**

This project illuminates key aspects of the chocolate industry, including top-rated companies, bean origins, and bar preferences. Soma emerges as the highest-rated company globally, located in Canada, while the USA leads in chocolate production. Venezuela is highlighted as a prime location for cocoa bean cultivation, with Madagascar chocolate leading in top-rated bars. Surprisingly, no clear correlation exists between cocoa percentage and ratings. Recommendations emphasize aligning products with consumer preferences, focusing on medium cocoa percentages, and sourcing beans from regions like Venezuela for consistent quality. Adapting to these insights can enable chocolate producers to meet consumer demands and thrive in the market.