



جامعة الإمام عبد الرحمن بن فيصل
IMAM ABDULRAHMAN BIN FAISAL UNIVERSITY

CIS211 Project

Coffee Quality	
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CIS 211: Fundamental of Information System

CIS211 Project – Tasks Form

Student Name	Tasks
Leader: Wajood Khalid Al Jearah 2220001292	<ul style="list-style-type: none"> - Searching for a database and a topic for the project. - the dashboard (the start page, general page, species page, coffeebags page, country page). - The project presentation (powerpoint) - Defining the goal, problem, results of the study. - In the project report (the problem, results, summary, recommendations)
Zainab Abdullhamed Alkadem 2220001189	searching for data - PowerPoint presentation- report(method)- trying to find some ideas for the dashboard- searching for a problem - Interaction with the group girls in the Zoom meeting for the Dashboard
Zahra Hassan Al Zayed 2220006641	searching for data-report(Abstract,introduction ,method(workflow),Discussion,Reference)-Interaction with the group girls in the Zoom meeting for the Dashboard
Yaqeen Ahmed A kuraykish 2220002506	searching for data - dashboard-report(do page 3 in decision) And sharing in report design- Interaction with the group girls in the Zoom meeting for the Dashboard
Reema Abdullah Almaimoni 2220004564	searching for data - dashboard - report
Sakinah Mustafa Al Abbas 2220006806	Searching for data of powerbi - Doing the report-and ideal for dashbored-report(Abstract,introduction ,method,Discussion,Conclusion, Report format)

Abstract

Our idea was to check the quality of the coffee beans. These datasets are gathered from Coffee Quality Institute (CQI) in January, 2018. Based on the data collected, this research studies quality criteria such as flavor by color, aroma and moisture and in relation to the descriptive data of the farm and based on the results of the quality criteria studied by the power bi program, it was determined that the best type of coffee is Arabica. This study aims to improve the quality of coffee beans and provide information about the lives of the people who produce them.

Introduction

Coffee is considered one of the most popular and popular drinks in our time, and on this basis, it was taken as an idea for the project. The preferred type of coffee was chosen by coffee specialists, and the choice was based on ten variables. Coffee quality measures were averaged. Based on the results, we decide which one is better, Arabica or robusta. The study is to improve the quality of coffee for producers and to identify the best types of coffee.

We have thought a lot about ways to develop coffee bean through our data analysis and use of power BI software, which has increased our ideas for its development.

A problem has to be solved: The decline in (total) sales of Robusta coffee beans each month has been noted by analyzing the data.

Purpose/Objectives of Data Analysis:

- To find out the reasons that led to the decrease in sales based on the difference in the branch, the type of customer and the production line that affected the percentage of selling this type of coffee beans.

The solution:1- Developing and improving coffee beans.

2- Distributing a questionnaire to customers to find out their opinion on the quality and standards of this coffee.

Method

power BI: is a business intelligence tool. It is an interactive reporting platform. It communicates, imagines, and deals with any data no matter how large it is, and analyzes it.

Tools :

image: We use it to included images from Canva.

Shapes: We have included the rectangle shape.

Text box: We have included a text box from it.

Buttons: we included the left arrow, right arrow, blank for home icon, Bookmark.

Visualization: we included the starcked column chart, line chart, donut chart, card, starcked bar chart, slicer, pie chart, starcked area chart, line and starcked column chart, filed map.

Workflow :

1. searching for database.
2. Choose the appropriate data for the project .
3. send data.
4. data approval.
5. Team work with the group.
6. Import the required tables from Excel.
7. Data processing within a tool power query.
8. Representing data in appropriate charts.
9. Improvements to the final interactive control panel.

Results



This page generally describes the overall study. However, we can clearly see that Arabica coffee is the most produced with a massively different from the other species. Moreover, It demonstrates the average of the total points with 82.09 points per cup.



This page is dedicated to coffee species specifically, it has the average points of each coffee quality element and the final total point rate per coffee cup. Furthermore, the page includes a chart that describes the coffee processing method where you can obviously notice that Washed / Wet was the greatest value. Also, the other graph illustrates the coffee bean color, most of the beans are colored Green, and the proportion with any Blue color is further down than the first.



The page comprises the coffee bag data related. Firstly, the pie chart demonstrates the count of coffee bags by coffee bean color, where there is a large gap between the values. Secondly, according to the Coffee Species Production of Bags, the majority of produced bags were an Arabica species. Thirdly, the bar chart illustrates countries' production of coffee bags, Colombia was the most coffee bag supplier in the study. Lastly, the graph shows the Consumer Companies of coffee bags.



The last page of our dashboard is devoted to the countries that contributed to the study. At the top of the page, you can select the country to study the behavior of different factors. However, you can see the total coffee production bags and the average rate points per cup. The linear bar graph displays the number of bags produced by bean color. Also, the vertical bar chart presents the Top supplier farms in each country. Finally, the pie graph is for The Production of Coffee Bags by Species the country produced

Discussion

Page 1:

This page shows the most produced coffee beans quantity, and we clearly see that Arabica coffee compared to the other type, its results were higher by 1.31k, as the total number of coffee bags was 206k, and the cups account was 1339, and as for predicting coffee bags, we noticed the differences between cities, as the city of Columbia was the highest among them and approached to 50k, and we also see that the average total score of all cups is 82.09 cups and the number of countries producing this coffee is 37.

Page 2:

This page contains the types of coffee, the methods of processing them, and the average sum of the criteria for each of: aroma, aroma, sweetness, aftertaste, acidity, humidity, balance, cup cleanliness and uniformity. The coffee treatment graph indicates that Washed/Wet was the highest value among them. The mean for these criteria was equal to some extent, as the results ranged from 7.40 to 9.84. The color chart of the coffee bean indicates that most of the beans are colored green. The total average price points per cup reached 82.09.

Page 3:

On this page, we note the relationship between the color of coffee beans by coffee bags. The green color of the coffee bin has the highest percentage followed by blueish green and then green blueish less. In the relationship between the production of coffee and Lucia's countries, we found that Mexico has the highest production of coffee lakes and Tanzania has the lowest productivity. As for the relationship between coffee types and the production of bags, we noticed that the total number of Arabica coffee bags is 1k, which is higher than Robusta, which is a total of 0k. We also found that a specialty company has the highest total of coffee bags (300) bags and Nucoffee company has the lowest total of coffee bags, which is about (50) bags.

Page 4:

And the last page at the top, we can select the country to study the behavior of different factors and through the coffee bag production

chart, the green color was the most among the three shades and the total average was 206K. The chart indicates the next best 5 farms for coffee suppliers, where it was in the first place Juan Luis Alvarado... and Ipanema coffees came in last place. As for the bar chart, the Arabian was the best with a percentage of 202k, while Robusta was 5k. In the end, the total total production of coffee was 206k, and the total average points per cup was 82.09.

Recommendation

- based on the findings of our study, Arabica coffee has a higher average total rate point, so we advise coffee shop owners to use Arabica in their businesses for good.
- Ethiopia has the highest average of the best coffee quality, so the decision-maker should try to rely on supplying Ethiopian beans for the best quality.
- Some countries like Japan produce fewer coffee bags despite having high-quality coffee. We suggest coming up with a strategy to address this issue.

Conclusion

It was an interesting and new study, and it was easy to design and coordinate the dashboard in terms of fonts, colors, and their contrast, as well as organizing charts, but there were some difficulties that we faced during the work, including choosing the appropriate chart for the data and what data is important to include to help us produce the dashboard well, understandably, and of value. At the end of our report, the best type of coffee was determined based on the quality criteria that were evaluated.

References

Business intelligence and data analytic Power BI workshop on Zoom by (Dr. Dabiah Ahmed Alboaneen)

<https://www.kaggle.com/datasets/volpattro/coffee-quality-database-from-cqi> (The database)

<https://www.youtube.com/live/gXNOSnImMFk?feature=share> (How to use and analyze data power Bi).

Publish link

<https://app.powerbi.com/view?r=eyJrljoiOTJmNjI4ZDAzMWJmOC00ZDU5LTkxZjUtNjQzNjJlNkYyOGZliiwidCI6IjJjODZiYmZlThkMDQtNDZmZi1hODNhLTk0MmYwNzVIMGY2MCIsmMiOjI9>

