

2024

DOCUMENTATION REPORT FOR COFFEE SALES PROJECT



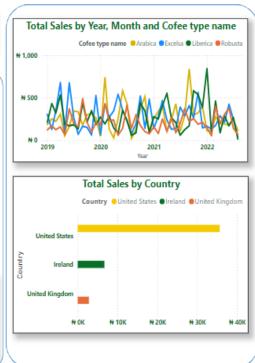
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COFFEE SALES DASHBOARD





1. Project Description

y0na Limited, a company specializing in sales of confectioneries and coffee provided a dataset for analysis to gain insights into their coffee sales performance, customer behaviour, and product profitability. The dataset provided included multiple sheets that captured various aspects of the business, including orders, customers, products, total sales, and geographic distribution. The objective of this project is to analyze the data to uncover patterns, diagnose potential issues, and make predictions for future business strategies.

2. Data Description

The dataset is an Excel file that contains the following sheets:

- 1. Orders
- 2. Customers
- 3. Products

I'll now examine the content of each sheet to understand the data structure and formulate the documentation report.

- Orders Sheet: This sheet captures individual orders, including customer details, products purchased, and sales values. The Columns include Order ID, Order Date, Customer ID, Product ID, Quantity, Customer Name, Email, Country, Coffee Type, Roast Type, Size, Unit Price, Sales, Coffee type name, Roast type name, Loyalty Card.
- Customers Sheet: This sheet contains customer demographic data, which is crucial
 for understanding purchasing behaviour and segmentation. The Columns include:
 Customer ID, Customer Name, Email, Phone, Street Address, City, Country,
 Postcode, Loyalty Card
- 3. **Product Sheet:** This sheet details the coffee products offered by Yona, including pricing and profitability, which will help assess product performance. The Columns include Product ID, Coffee Type, Roast Type, Size, Unit Price, Price per 100g, Profit.

For the sake of this report, we will focus more on the Orders table because it's the comprehensive dataset used for analysis. The Orders table captures detailed information about individual transactions. Below is an explanation of the data contained in each column:



- 1. **Order ID**: A unique identifier for each order placed by a customer. This helps to track and manage individual transactions.
- 2. **Order Date**: The date when the order was placed. This is essential for analyzing trends over time, such as identifying peak sales periods.
- Customer ID: A unique identifier assigned to each customer. This helps to link orders
 to specific customers, allowing for analysis of purchasing behaviour and customer
 segmentation.
- 4. **Product ID:** A unique identifier for each product. This helps to track which products are being sold in each order and is crucial for inventory management and product performance analysis.
- 5. **Quantity:** The number of units of a particular product purchased in the order. This data helps in understanding the volume of sales and inventory needs.
- 6. **Customer Name:** The name of the customer who placed the order. This provides a direct link to the customer and can be used for personalized marketing and customer relationship management.
- 7. **Email:** The email address of the customer. This is important for communication, including sending order confirmations, promotions, and follow-up surveys.
- 8. **Country:** The country from which the order was placed. This information is useful for geographic sales analysis and understanding market penetration in different regions.
- 9. **Coffee Type:** The type of coffee ordered (e.g., Arabica, Robusta, Excelsa, Liberica). This helps in analyzing customer preferences for different coffee varieties.

- 10. **Roast Type:** The roasting style of the coffee ordered (e.g., Light, Medium, Dark). This column helps to understand customer preferences for different roast profiles.
- 11. **Size:** The size or weight of the coffee product ordered (e.g., 0.5kg, 1kg). This helps in analyzing customer preferences for different package sizes and can impact pricing strategies.
- 12. **Unit Price:** The price per unit of the coffee product. This is important for calculating the total sales value of the order and assessing product profitability.
- 13. **Sales:** The total sales value of the order, calculated as Quantity * Unit Price. This column is crucial for revenue analysis.
- 14. **Loyalty Card:** Indicates whether the customer used a loyalty card for the purchase (e.g., "Yes" or "No"). This is key for analyzing the impact of loyalty programs on customer purchasing behaviour.

3. Problem Statement

- 1. Sales Analysis: What are the trends in coffee sales over time, and which products are contributing the most to revenue?
- 2. Customer Behavior: Who are the top customers, and what are their purchasing habits?
- 3. Geographical Performance: Which countries generate the most sales, and how does sales performance vary across regions?
- 4. Product Profitability: Which coffee products have the highest profit margins, and how does pricing affect sales?
- 5. Customer Loyalty: How does the presence of a loyalty card influence customer purchases?

4. Steps taken

- 1. Data Cleaning:
- I Checked for missing values and inconsistencies in the data, especially in the Orders and Customer sheets.
- I Verified that all numerical data (e.g., sales, quantities, profits) were correctly formatted for analysis.
- 2. Data Integration:

 I used the Vlookup, Index match and Xlookup functions to merge relevant data across different sheets using common keys (e.g., Customer ID, Product ID) to create a comprehensive dataset for analysis.

3. Descriptive Analysis:

- Performed summary statistics on sales data to identify top-performing products and customers.
- Analyzed sales trends over time using the Total Sales sheet.

4. Diagnostic Analysis:

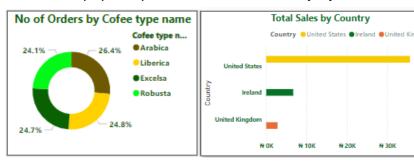
- Compared sales performance across different countries and identified potential causes for underperformance in certain regions.
- Analyzed the impact of loyalty cards on customer purchasing patterns.

5. Predictive Analysis:

- Used historical sales data to forecast future sales trends and identify potential growth areas.
- Assessed the likelihood of repeat purchases based on customer demographics and previous order behaviour.

5. Insights

- 1. Descriptive:
- The United States is the largest market for y0na Limited, generating the highest sales revenue.
- Arabica coffee is the most popular product, followed closely by Robusta.



2. Diagnostic:

- Sales performance in the United Kingdom is significantly lower than in the United States and Ireland, possibly due to less effective marketing or distribution challenges.
- Customers with loyalty cards tend to purchase larger quantities and have a higher lifetime value.



3. Predictive:

- Sales are expected to peak during the holiday season, especially in November and December.
- Introducing new product lines or promotions in the United Kingdom could help boost sales in that region.

6. Conclusions

The analysis of Yona's sales data provides valuable insights into various aspects of the business, including customer behaviour, product performance, and geographical sales distribution. The data reveals that the United States is the largest and most profitable market, with Arabica coffee being the most popular product. The impact of loyalty programs is evident, as customers with loyalty cards tend to purchase more frequently and in larger quantities, indicating the success of these initiatives in driving repeat business.

Sales trends show that certain periods, particularly around the holiday season, are peak times for revenue, suggesting opportunities for targeted marketing campaigns and promotions. However, the analysis also identifies areas for improvement, such as the underperformance in the United Kingdom, which could be addressed through focused marketing efforts and product promotions.

Looking forward, Yona can leverage these insights to enhance their product offerings, optimize their pricing strategies, and expand their market reach. By continuing to analyze customer behaviour and sales trends, Yona Limited can remain agile in responding to market demands and maintaining its competitive edge in the coffee industry. The use of predictive analysis will further enable Yona Limited to anticipate future trends and strategically plan for growth and profitability.