SALES PERFORMANCE DASHBOARD OF BANK MUAMALAT:

Period Jan 2020 – Dec 2021

About Company

PT Bank Muamalat Indonesia Tbk is the first bank in Indonesia to operate based on Islamic (sharia) principles. Today, Bank Muamalat continues to innovate by introducing a range of sharia-compliant products, including Islamic insurance, Islamic pension funds, and Islamic multifinance services.

Problem Statement

As PT Bank Muamalat Indonesia Tbk expands its sharia-compliant product offerings—including Islamic insurance, pension funds, and multifinance services—it faces challenges in monitoring and evaluating product performance across different categories, cities, and time periods. The lack of a centralized, visual, and interactive reporting tool hinders the ability of decision-makers to quickly identify sales trends, customer behavior, and high-performing regions or products.

Goals

This project aims to develop a comprehensive and interactive sales performance dashboard that enables PT Bank Muamalat to track, analyze, and optimize the sales performance of its sharia-based products across various dimensions.

Data Gathering

To develop a comprehensive view of sales performance, data was collected and integrated from four key datasets. Each dataset contributes unique attributes that, when combined, allow for detailed sales analysis across products, customers, categories, and regions.

Data Selection

The four available files were selected for analysis and imported to Google BigQuery using SQL for data preparation and dashboarding. The files include:

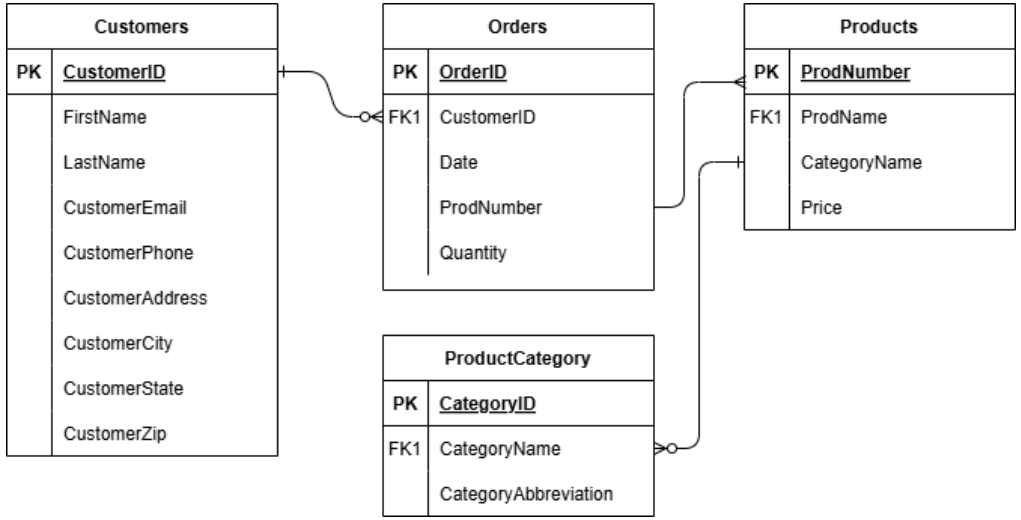
Customers.csv
Orders.csv
Products.csv
Product Categories.csv

Import four datasets and create relational tables using primary and foreign keys for better understanding. Integrate 'c' (customers), 'o' (orders), 'p' (products), and 'pc' (product categories) data. Add the master table to the bank_muamalat dataset in BigQuery.

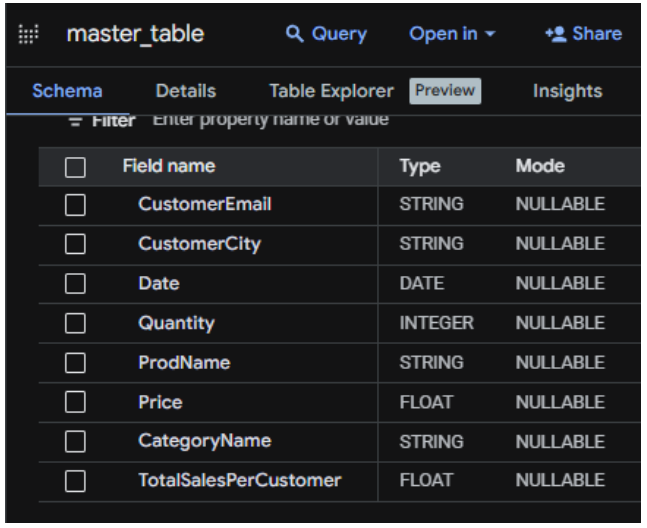
The **master_table** is a consolidated dataset derived from joining customer, order, product, and category tables, designed to support detailed sales performance analysis. It includes key fields such as customer email and city, order date, product name and category, quantity, price, and a calculated TotalSalesPerCustomer value (price × quantity).

Data Modelling

An Entity Relationship Diagram (ERD) was created to visualize the relationships among all tables and ensure proper data structure for analysis.



The **master_table** consists of 8 features/columns and a total of 3339 entries.



Bigquery Syntax

An Entity Relationship Diagram (ERD) was created to visualize the relationships among all tables and ensure proper data structure for analysis.

```sql
WITH TotalKuantitas AS (
    SELECT
        o.Date AS order_date,
        pc.CategoryName AS category_name,
        p.ProdName AS product_name,
        p.Price AS product_price,
        o.Quantity AS order_qty,
        (p.Price * o.Quantity) AS total_sales,
        c.CustomerEmail AS cust_email,
        c.CustomerCity AS cust_city
    FROM
        `bank-muamalat-461606.bank_muamalat_dashboard.o` AS o
    JOIN
        `bank-muamalat-461606.bank_muamalat_dashboard.c` AS c
        ON o.CustomerID = c.CustomerID
    JOIN
        `bank-muamalat-461606.bank_muamalat_dashboard.p` AS p
        ON o.ProdNumber = p.ProdNumber
    JOIN
        `bank-muamalat-461606.bank_muamalat_dashboard.pc` AS pc
        ON p.Category = pc.CategoryID
)
```

```sql
SELECT
    order_date,
    category_name,
    product_name,
    product_price,
    order_qty,
    total_sales,
    cust_email,
    cust_city
FROM
    TotalKuantitas
ORDER BY
    order_date ASC,
    order_qty ASC;
```

- **CTE (Common Table Expression): TotalKuantitas**

The query starts by creating a temporary result set using WITH TotalKuantitas AS (...).

- **Table Joins**

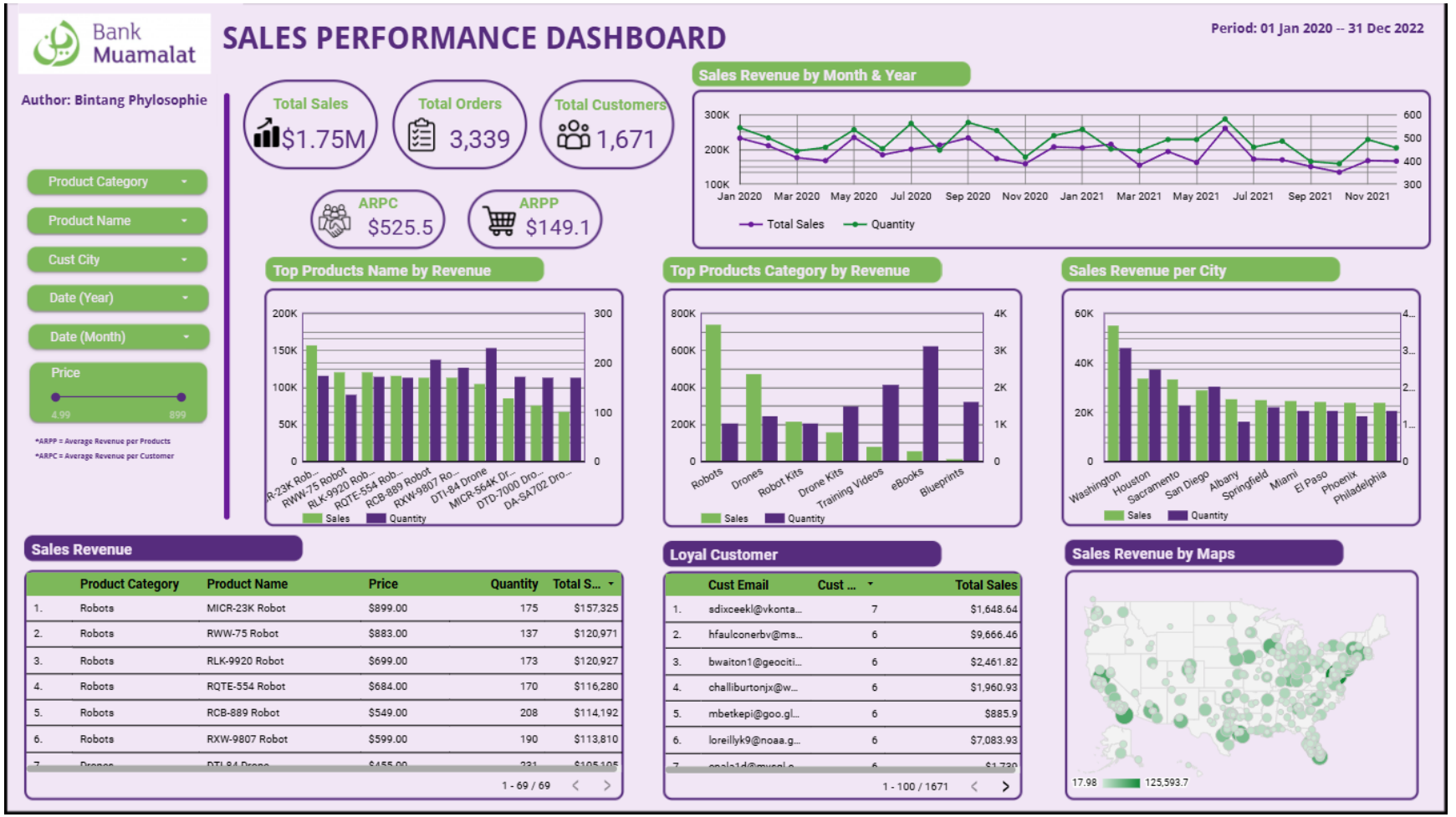
The query joins four tables:o (Orders), c (Customers), p (Products), and pc (Product Categories). These joins connect each order to the customer who placed it, link the order to the product that was sold, and identify the category that product belongs to

- **Final SELECT and Ordering**

This final step retrieves all the enriched fields from the CTE TotalKuantitas. Also sorts the results first by order date (oldest to newest), and then by order quantity (lowest to highest).

The master table that was already created was then imported into **Looker Studio** to be transformed into an interactive dashboard.

Dashboard Overview

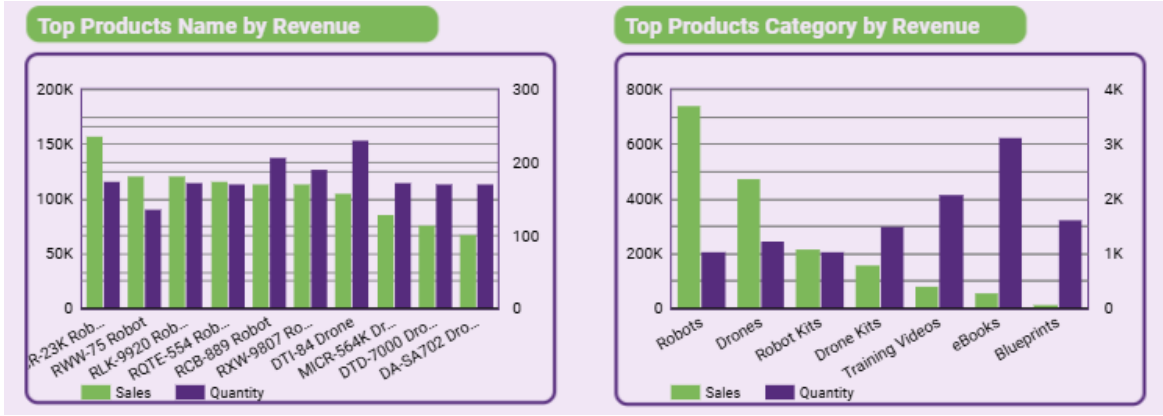


Analysis of Data

Key Metrics (Top Section)
Total Sales: $4.55M
Total Orders: 3,339
Total Customers: 1,671
ARPC (Avg Revenue per Customer): $497.7K
ARPP (Avg Revenue per Product): $149.1

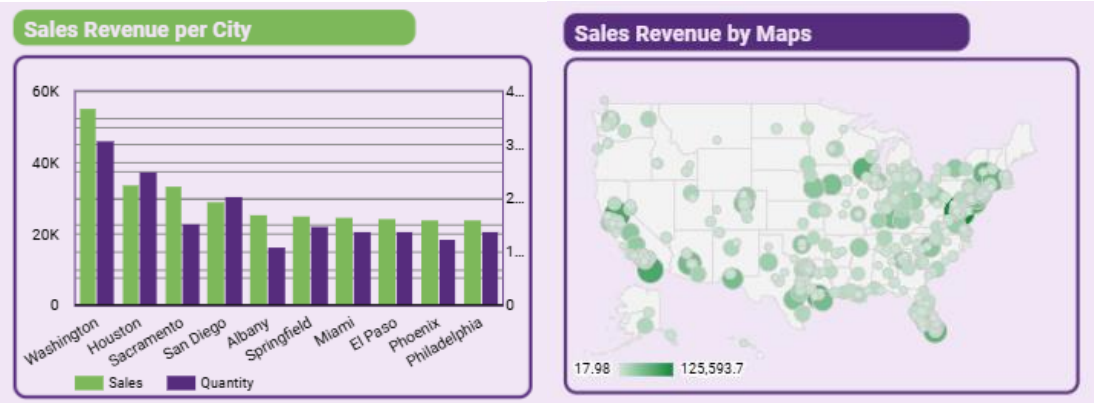
Interpretation & Insight:
Healthy total revenue and customer base, but ARPC seems unusually high — might indicate a few high-paying customers (check customer revenue distribution).
ARPP is relatively low, suggesting either low-cost products or high sales volume of low-price items.
Actionable Recommendation:
Segment high-revenue customers for premium offers/loyalty programs.
Consider upselling or bundling strategies to increase ARPP.

Interpretation:
Sales fluctuate significantly month-to-month.
Peaks in Jul 2021, May 2021, and Oct 2020, dips in Feb 2021, Dec 2020.
Total Sales and Quantity move in parallel, indicating consistent pricing and conversion.
Insights:
Strong seasonal pattern, possibly driven by promotions or events.
Sales tend to be lower at year-end (potential budget exhaustion or market saturation).
Actionable Recommendations:
Analyze campaigns/promotions in high months to replicate success.
Plan new promotions or product launches in low-sales months to stabilize revenue.
Forecast inventory around peaks and troughs to optimize supply chain.



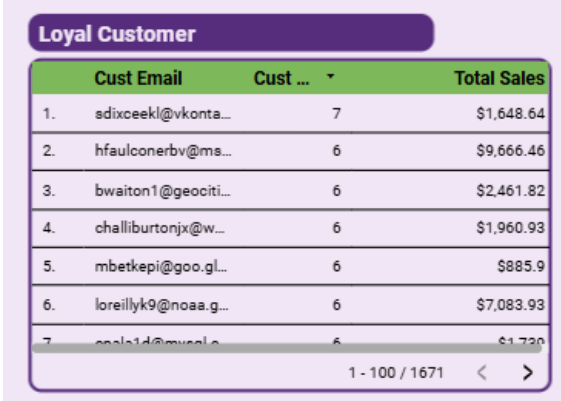
Interpretation:
Robots dominate in both revenue and quantity, with MICR-23K Robot, RWW-75 Robot, RLK-9920 Robot are top sellers.
Some products (e.g., RCE-889 Robot) show high sales revenue despite moderate quantity — indicates premium pricing.
Training Videos and eBooks have high quantity but relatively lower revenue — likely low-margin items.

Insights:
Robots dominate the top-selling product list, validating strong market demand in this category.
Products with lower quantity but high sales may be niche or high-margin.
High demand for robots; strong base to grow premium product lines.
Digital products (videos, eBooks) offer scale but generate less revenue per unit.
Actionable Recommendations:
Invest in inventory and marketing for high-revenue robots.
Consider pricing strategies or feature enhancements for lower-performing models.
Focus on robot innovation, bundling accessories with robots.
Upsell training content with physical products for cross-sell opportunities.
Focus on bundling robots with training videos/eBooks to raise ARPP.



Interpretations:
Sales are concentrated in the eastern and southern U.S.
Washington, Houston, Sacramento are top cities by revenue and quantity.
Green bubble size indicates revenue concentration.
Smaller cities like Phoenix, Philadelphia show low engagement.
Insight:
High correlation between city population/economic size and sales.
Opportunity to grow presence in underperforming cities.

Actionable Recommendations:
Boost regional campaigns in top cities to maintain dominance.
Run awareness or geo-targeted marketing in low-performing cities.
Allocate regional sales reps or online ads accordingly.



Interpretation:
Top customers spent $1.6K to $9.6K, some with just 6 purchases.
Insight:
Small number of purchases result in high total sales = high-value transactions.
Potential to build exclusive membership or loyalty tier for these customers.
Actionable Recommendation:
Identify common traits of these high-value customers.
Design targeted loyalty campaigns or upsell plans.

Conclusion

- The overall sales performance is strong, primarily driven by **the robot product category.**
- A significant portion of revenue comes from **a small number of high-value** customers.
- **Top performing cities** like Washington and Houston contribute heavily to sales.
- Sales exhibit **seasonal trends,** indicating opportunities to optimize timing for promotions and product launches.
- **Digital products** (eBooks, training videos) have high volume but lower revenue, presenting a chance to **bundle with physical products.**
- **Geographic analysis** reveals untapped markets that can be targeted with tailored marketing strategies.
- To drive growth, focus on:
  - Product bundling and upselling strategies,
  - Customer segmentation and loyalty programs,
  - Regional expansion into underperforming areas,
  - Seasonal marketing and inventory planning.

More Further

- Created by:: **Bintang Phylosophie**

- To dashboard: 
To creator: 
To GitHub: