

Sales Performance Analytics Dashboard

Kimia Farma - Big Data Analytics

Presented by
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Created by:

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Dedicated entry-level data scientist with analytical and experimental background of Physics. My graduation 2023, a pivotal year marked by significant advancements in artificial intelligence with the introduction of GPT-4 and other generative AI models, has fueled my curiosity and excitement to delve into the field of data. I have comprehensive grasp of data science methodology from business understanding to modelling process with proficiency in **Python, SQL, Tableau, Power BI, Looker Studio and other tools** related to data analytics workflow from several coursework and bootcamps.

Experience



Research Assistant

Institut Teknologi Bandung
January 2021 – April 2023



Laboratory Assistant

Institut Teknologi Bandung
August 2020 – May 2021

Education



Institut Teknologi Bandung

Bachelor of Physics
August 2018 – January 2023



Rakamin Academy

Data Science ML Specialization Bootcamp
October 2023 – March 2024

Portfolio Case Study

Kimia Farma is a state-owned enterprise Indonesian pharmaceutical company established in 1817, plays a vital role in Indonesia's healthcare sector, contributing to public health and wellness. It operates in the production, distribution, and retail of pharmaceutical products, including medicines, healthcare supplies, and medical devices. In this task we want to analyze the sales performance of its products over period of January 2020 - December 2023. Based on the data tables provided by the company, including Total Transactions, Inventory, Products, and Office Branch, we will perform visualizations aimed at determining :

1. Year-on-year Revenue Comparison of Kimia Farma
2. Top 10 Branches by Total Transactions in Each Province
3. Top 10 Branches by Net Sales in Each Province
4. Top 5 Branches with the Highest Ratings but Lowest Transaction Ratings
5. Geo Map of Indonesia Showing Total Profit by Each Province
6. (and other kinds of visualizations, depends on us)

Then, these visualizations we will gather business insights. The tech stack that we will be using are Google BigQuery (SQL) and Looker Studio.

Stage 1 : Master Table Formulation

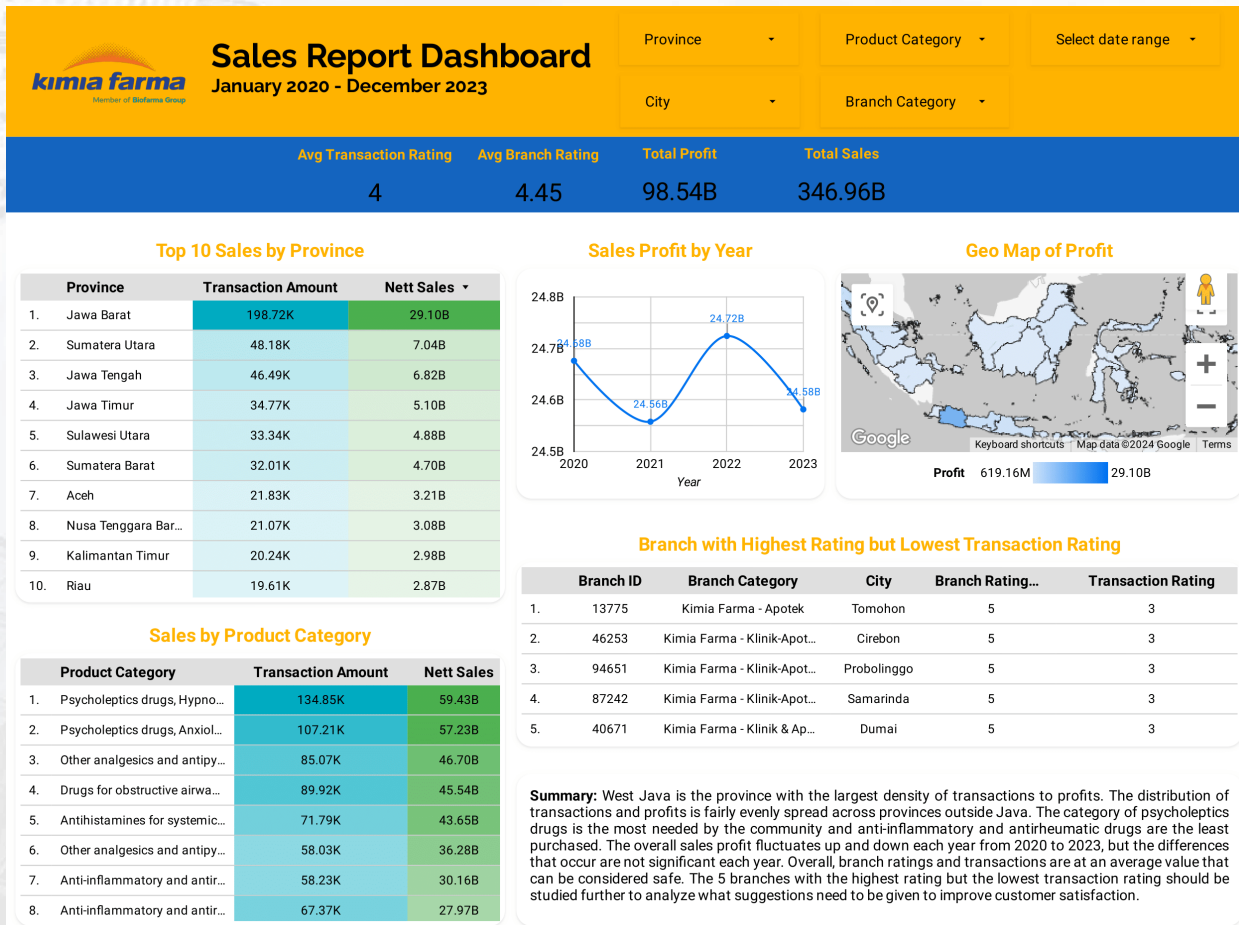
```
1 SELECT
2   ft.transaction_id,
3   ft.date,
4   kc.branch_id,
5   kc.branch_name,
6   kc.kota,
7   kc.provinsi,
8   kc.rating AS rating_cabang,
9   ft.customer_name,
10  p.product_id,
11  p.product_name,
12  p.price AS actual_price,
13  ft.discount_percentage,
14  CASE
15    WHEN p.price <= 50000 THEN 0.10
16    WHEN p.price <= 100000 THEN 0.15
17    WHEN p.price <= 300000 THEN 0.20
18    WHEN p.price <= 500000 THEN 0.25
19    ELSE 0.30
20  END AS persentase_gross_laba,
21  p.price * (1 - ft.discount_percentage / 100) AS nett_sales,
22  p.price * (1 - ft.discount_percentage / 100) *
23    CASE
24      WHEN p.price <= 50000 THEN 0.10
25      WHEN p.price <= 100000 THEN 0.15
26      WHEN p.price <= 300000 THEN 0.20
27      WHEN p.price <= 500000 THEN 0.25
28      ELSE 0.30
29    END AS nett_profit,
30  ft.rating AS rating_transaksi
31 FROM
32   rakamin-kimia-farma-pbi.FinalProject.kf_final_transaction ft
33 JOIN rakamin-kimia-farma-pbi.FinalProject.kf_kantor_cabang kc ON ft.branch_id = kc.branch_id
34 JOIN rakamin-kimia-farma-pbi.FinalProject.kf_product p ON ft.product_id = p.product_id
```

Before conducting the analysis in the form of a dashboard in Looker Studio, we need to merge the four tables by selecting columns that contain relevant information about what we will analyze, as explained in the query earlier. Here is the result of the master table.

The master table is directly loaded/connected to Looker Studio for analysis and not exported as csv in local because the size is too large (135 MB) for importing in Looker Studio through local (max 100 MB).

JOB INFORMATION		RESULTS	CHART	JSON	EXECUTION DETAILS		EXECUTION GRAPH		
Row	transaction_id	date	branch_id	branch_name	kota	provinsi	rating_cabang	customer_name	product_id
1	TRX5103706	2021-08-25	93529	Kimia Farma - Klinik & Apotek	Yogyakarta	DI Yogyakarta	4.3	Derrick Wright III	KF116
2	TRX5388139	2020-12-29	24832	Kimia Farma - Klinik-Apotek-La...	Pekanbaru	Riau	4.2	Elizabeth Ramos	KF116
3	TRX7251897	2020-02-03	20505	Kimia Farma - Apotek	Cilacap	Jawa Tengah	4.5	Meghan Warner	KF116
4	TRX4943675	2022-09-09	17678	Kimia Farma - Klinik & Apotek	Subang	Jawa Barat	4.8	Steven Roberts	KF116
5	TRX3469820	2020-06-20	28315	Kimia Farma - Klinik-Apotek-La...	Sukabumi	Jawa Barat	3.9	Linda Bruce DDS	KF116

Stage 2 : Dashboard Creation



*explanation about the dashboard is included in the Summary part.

Thank You

