Rakamin Academy X kimia farma

Business Performance Analysis of Kimia Farma 2020 - 2023

Kimia Farma - Big Data Analytics

Presented by
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Data Analytics

I am an undergraduate student in Computer Science at Universitas Komputer Indonesia, focusing on data science and web development. I have experience as a Data Analyst intern at Kimia Farma and in organizing events like Google DevFest Bandung. I am fluent in Indonesian and English and passionate about applying my technical and leadership skills in the tech industry.

Courses and Certification

Conversation for Business : Intermediate Level	April,2025
CCNA : Introduction to Networks	Feb,2025
Belajar Visualisasi Data	June,2024
Belajar Dasar Pemograman Web	Des,2023

About Company

Kimia Farma is one of the largest pharmaceutical companies in Indonesia, founded in 1958. The company produces and distributes medications and other healthcare products. From 2020 to 2023, Kimia Farma played a key role in distributing COVID-19 vaccines and implementing digital innovations in its operations. Despite facing economic challenges due to the pandemic, Kimia Farma maintained financial stability and continued to grow, focusing on new products and improving healthcare services.

Project Portfolio

This project is designed to provide comprehensive insights into the performance of Kimia Farma's sales by conducting data analysis through BigQuery. The first step involves importing the necessary data and creating a datamart, which will then be utilized to build a detailed performance dashboard. This dashboard will visualize the results of the analysis, offering an intuitive and accessible overview of key performance indicators. The goal is to provide decision-makers with actionable insights, enabling them to develop more targeted strategies and recommendations to enhance business growth, optimize operations, and improve overall performance.

What is this topic about?

Step 1

Import dataset into Google BigQuery

Step 2

Create analysis tables or datamart using BigQuery

Step 3

Create a Dashboard for Kimia Farma's analysis from 2020 to 2023

1. Importing Dataset to BigQuery

Step 1

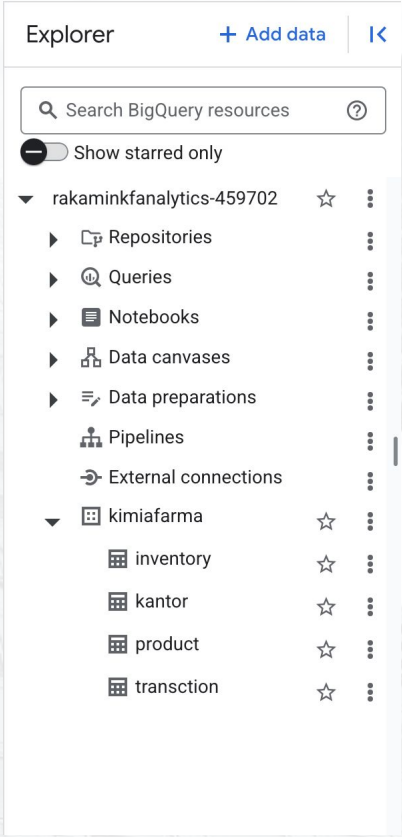
Create a project in BigQuery named "Rakamin-KF-Analytics".

Step 2

Create a new dataset in BigQuery called "kimia-farma" within the "Rakamin-KF-Analytics" project.

Step 3

Import 4 data tables into the "kimia-farma" dataset.



BigQuery Syntax

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*Untitled...ery | analysis...ble

Untitled query | Run | Save | Download | Share | Schedule

```sql
CREATE TABLE kimiafarma.analysis_table AS
SELECT
  ft.transaction_id,
  ft.date,
  ft.branch_id,
  kc.branch_name,
  kc.kota,
  kc.provinsi,
  kc.rating AS rating_cabang,
  ft.customer_name,
  ft.product_id,
  p.product_name,
  ft.price AS actual_price,
  ft.discount_percentage,

  -- Calculation of nett_sales as price after discount
  (ft.price * (1 - ft.discount_percentage)) AS nett_sales,

  -- Calculation of nett_profit as net profit
  (
    CASE
      WHEN ft.price <= 50000 THEN 0.10
      WHEN ft.price > 50000 AND ft.price <= 100000 THEN 0.15
      WHEN ft.price > 100000 AND ft.price <= 300000 THEN 0.20
      WHEN ft.price > 300000 AND ft.price <= 500000 THEN 0.25
```

Query completed

Query results | Save results | Open in

Bigquery code is Here

BigQuery Syntax

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Untitled query | Run | Save | Download | Share | Schedule

```
    WHEN ft.price > 50000 AND ft.price <= 100000 THEN 0.15
    WHEN ft.price > 100000 AND ft.price <= 300000 THEN 0.20
    WHEN ft.price > 300000 AND ft.price <= 500000 THEN 0.25
    ELSE 0.30
  END
) AS nett_profit,

-- Calculation of gross profit percentage based on price criteria
(
  CASE
    WHEN ft.price <= 50000 THEN 0.10
    WHEN ft.price > 50000 AND ft.price <= 100000 THEN 0.15
    WHEN ft.price > 100000 AND ft.price <= 300000 THEN 0.20
    WHEN ft.price > 300000 AND ft.price <= 500000 THEN 0.25
    ELSE 0.30
  END
) AS persentase_gross_laba

FROM
  kimiafarma.transction AS ft
JOIN
  kimiafarma.product AS p ON ft.product_id = p.product_id
JOIN
  kimiafarma.kantor AS kc ON ft.branch_id = kc.branch_id;
```

Query completed

Query results | Save results | Open in

Bigquery code is Here

Tabel Analisa

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*Untitled...ery | analysis...ble

analysis_table | Query | Open in | Share | Copy | Snapshot

Schema | Details | Preview | Table Explorer Preview | Insights | Lineage | Data Profile | Da

Row	transaction_id	date	branch_id	branch_name	kota
1	TRX1232342	2023-05-30	62312	Kimia Farma - Apotek	Cianjur
2	TRX8383972	2020-07-22	64080	Kimia Farma - Apotek	Batam
3	TRX5651355	2023-12-26	14433	Kimia Farma - Apotek	Gorontalo
4	TRX3719390	2020-05-24	63815	Kimia Farma - Apotek	Sukabumi
5	TRX8801605	2020-10-16	96558	Kimia Farma - Apotek	Denpasar
6	TRX5758357	2023-07-20	83742	Kimia Farma - Apotek	Pematangsiantar
7	TRX6978726	2022-05-26	93878	Kimia Farma - Apotek	Semarang
8	TRX4949710	2023-04-02	65948	Kimia Farma - Apotek	Tarakan
9	TRX7511418	2020-05-31	12802	Kimia Farma - Apotek	Garut
10	TRX3291498	2021-11-24	57026	Kimia Farma - Apotek	Pematangsiantar
11	TRX6938546	2021-06-25	47503	Kimia Farma - Apotek	Denpasar
12	TRX9380202	2020-11-26	98676	Kimia Farma - Apotek	Malang
13	TRX6565400	2020-01-05	90734	Kimia Farma - Apotek	Sukabumi
14	TRX9876181	2023-07-08	47344	Kimia Farma - Apotek	Tanjungpinang
15	TRX3083185	2023-11-30	52192	Kimia Farma - Apotek	Karawang
16	TRX5455288	2023-02-21	31935	Kimia Farma - Apotek	Tangerang
17	TRX2571152	2021-04-13	61344	Kimia Farma - Apotek	Padang

Results per page: 50 | 1 – 50 of 672458

Explanation is Here..

Dashboard Analytics Performance

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Here’s a breakdown of the metrics:

1. **Total Transaction**: 672,458 – This represents the total number of transactions that occurred during the given period.

2. **Total Net Profit**: 172.3K – This refers to the total net profit generated, measured in thousands (likely USD, depending on the currency used by the company).

Explanation is Here..

Dashboard Analytics Performance

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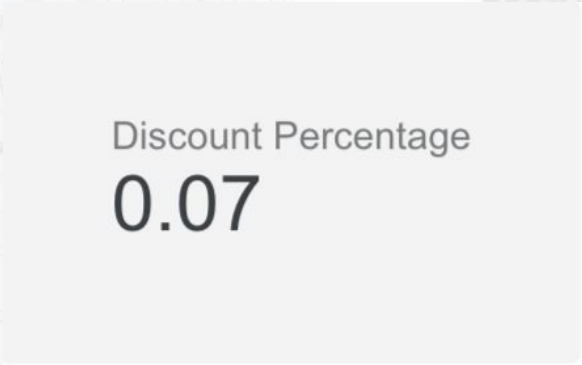
3. **Total Customer**: 264,601 – This indicates the total number of customers who made purchases during the specified period.

4. **Discount Percentage**: 0.07 – This shows that, on average, the discount applied to products during the transactions was 7%.



Explanation is Here..

Dashboard Analytics Performance

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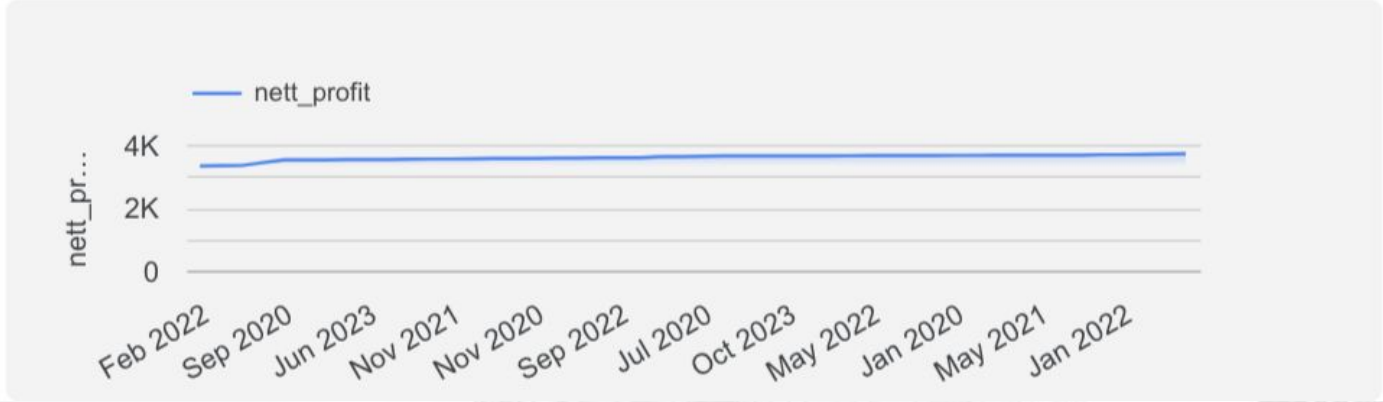


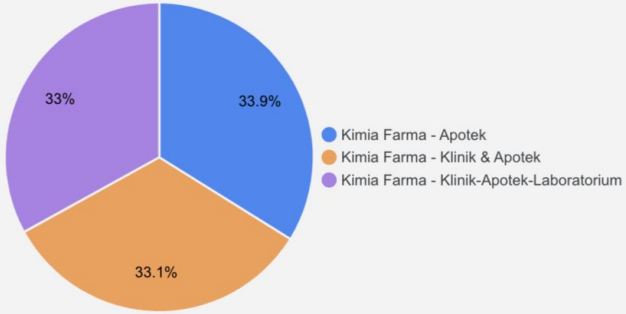
The chart illustrates the monthly **net profit** of the company from **February 2020** to **October 2023**, measured in **USD**. Over the period, the net profit remained relatively stable, fluctuating slightly around **4K USD** per month. This consistent trend suggests that the company experienced steady profitability, with little variation month-to-month. The relatively flat line throughout the period indicates a predictable income stream, possibly due to consistent sales performance or stable pricing strategies. This pattern reflects financial stability, which is valuable for long-term planning and investment decisions.

Dashboard Analytics Performance

This chart represents the **net profit** by province, measured in **USD**, for various regions in Indonesia. The provinces listed along the x-axis are **Papua Barat**, **Papua**, **Kalimantan**, **DI Yogyakarta**, **Sulawesi T...**, **Bali**, **Riau**, **Aceh**, **Jawa Timur**, and **Jawa Barat**. This trend suggests that while the company’s operations in other provinces are generating relatively modest profits, **Jawa Barat** stands out as a major contributor to the company's overall financial performance.

Explanation is Here..

Dashboard Analytics Performance



The pie chart represents the sales comparison across different types of Kimia Farma branches. The sales distribution is fairly even, with **Kimia Farma - Apotek** contributing **33.9%** of the total sales, followed closely by **Kimia Farma - Klinik & Apotek** at **33.1%**, and **Kimia Farma - Klinik-Apotek-Laboratorium** at **33%**. This indicates a balanced performance across all branch types, with the **Apotek** branches slightly leading in sales compared to the others.

Explanation is Here..

Rekomendasi Bisnis

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1. Focus on Expanding Klinik-Apotek-Laboratorium Branches

- The **Klinik-Apotek-Laboratorium** branch model shows a strong balance in sales, contributing 33% of the total revenue. There is potential for further growth by expanding this model, as it integrates multiple services under one roof, increasing customer convenience and attracting a wider demographic.

2. Enhance Online Presence and E-commerce

- With a steady customer base and consistent sales, it would be beneficial to invest in strengthening Kimia Farma's **online platform** for both pharmacy and healthcare services. E-commerce and online consultations can help reach more customers, especially in areas with limited access to physical branches.

Explanation is Here..

Rekomendasi Bisnis

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3. Leverage Data Analytics for Targeted Marketing

- Utilize the data from sales transactions to better understand customer preferences. With **BigQuery** data analysis already in use, creating personalized marketing campaigns can help in driving sales in specific regions or branch types that may need a boost.

4. Increase Focus on Health Products & Services

- Based on the diverse branch models, consider increasing the range of **health-related products** and **healthcare services** offered, such as wellness check-ups, laboratory tests, and health consultations. This can create cross-selling opportunities, especially in the **Klinik-Apotek-Laboratorium** branches.

Explanation is Here..

Rekomendasi Bisnis

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5. Implement Loyalty Programs

- Introducing a **customer loyalty program** could incentivize repeat business. Rewards or discounts for frequent purchases or healthcare visits would increase customer retention and foster long-term loyalty.

6. Optimize Discount Strategy

- Based on the **discount percentage** insights, review how discounting impacts sales and profitability. If the discounting model is highly effective, consider increasing the scope of discounts during specific months or product categories to attract more customers.

Explanation is Here..

Thank You

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