Rakamin Academy X kimia farma

Business Performance Analysis of Kimia Farma for the Years 2020-2023

Kimia Farma - Big Data Analytics

Presented by
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Jobseeker

Graduated from mathematics major in 2021 and right now being a Team Leader at one of telecommunication company in Indonesia. Detail-oriented and analytical professional with a strong background in customer service seeking to leverage analytical skills and business acumen in a Data Analyst role. Eager to contribute to data-driven decision-making and process improvement initiatives in a dynamic organization

About Company

Kimia Farma Tbk (KAEF) is the first pharmaceutical industry company in Indonesia, established by the Dutch East Indies government in 1817. [1] Therefore, Kimia Farma has been present for over 100 years, in line with the nation's development and progress, particularly in Indonesia's health development. Currently, Kimia Farma and its business group have a network of 10 factories, 1,234 Pharmacy outlets (Kimia Farma Pharmacies), 419 Health Clinic outlets, 72 Clinical Laboratory outlets, 8 Optical outlets, and 3 Beauty Clinics

Project Portfolio

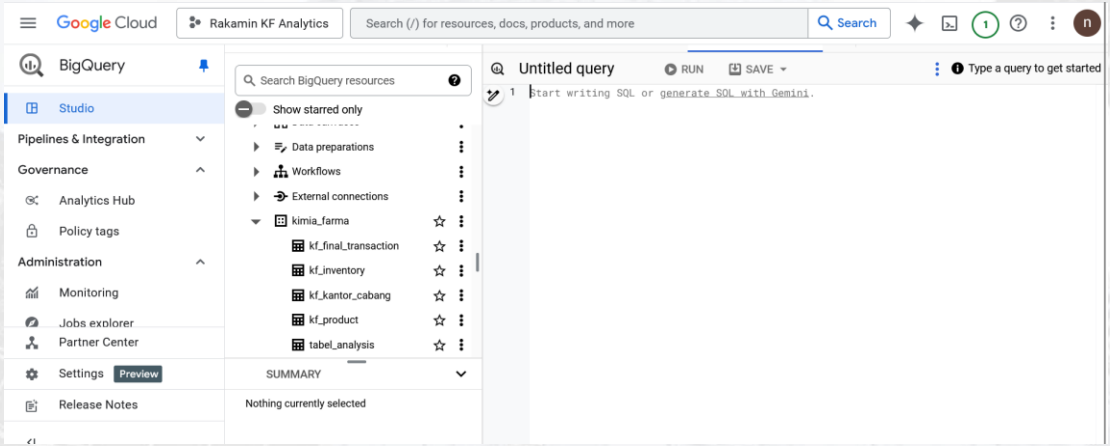
In this project, we analyze the business performance of Kimia Farma from 2020-2023. The tools used are BigQuery, Google Looker Studio, and GitHub

Project explanation video here!

1. Importing Dataset to BigQuery

In this project, we import datasets into BigQuery and create tables with the following datasets:

- kf_final_transaction.csv
- kf_inventory.csv
- kf_kantor_cabang.csv
- kf_product.csv



2. Analysis Tabel

Create an analysis table based on the aggregation results from the four tables that were imported earlier. The following are the mandatory columns in this table

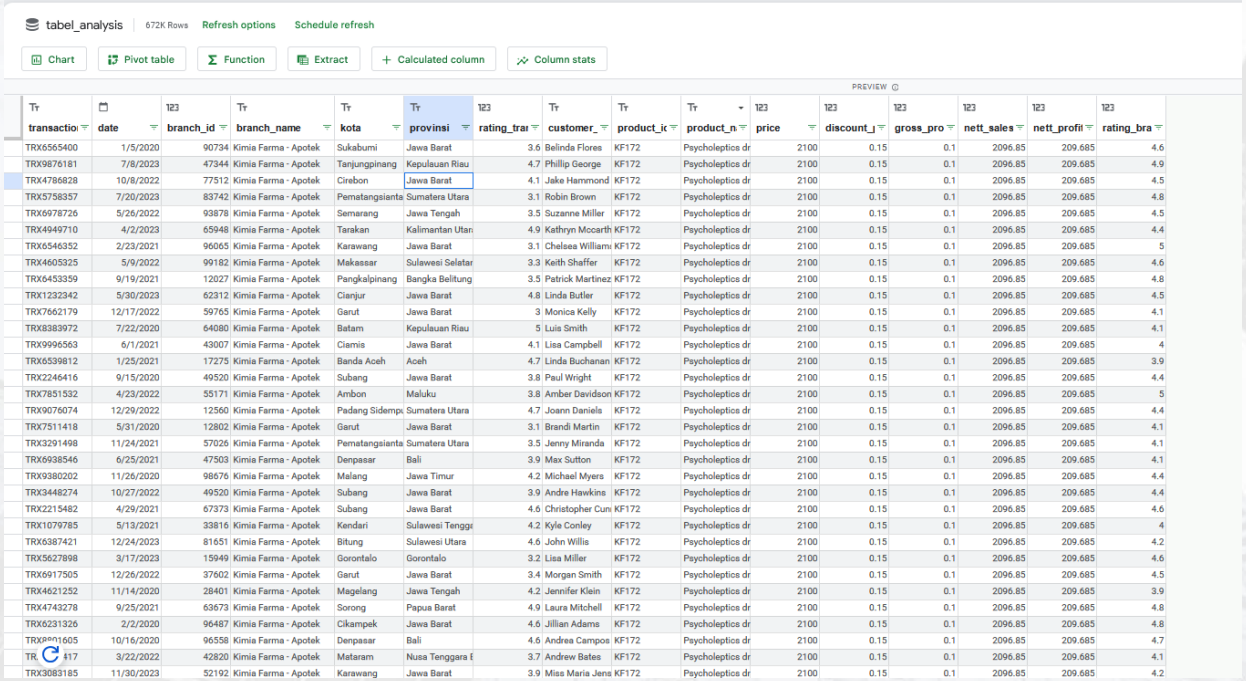
- transaction_id ransaction ID code
- date : the date the transaction was made,
- branch_id : Kimia Farma Branch ID Code,
- branch_name : name of Kimia Farma branch,
- kota : City of Kimia Farma,
- provinsi : Province of Kimia Farma branch,
- rating_cabang :consumer rating of Kimia Farma Branch
- customer_name : Name of Kimia Farma customer,
- product_id : product code of medication,
- product_name : medicine name
- actual_price : medicine price,
- discount_percentage : Discount percentage offered on the medicine
- persentase_gross_laba : The percentage of profit that should be received from the medicine with the following conditions

:■ Price <= Rp 50.000 ->profit 10%
■ Price> Rp 50.000 - 100.000 -> Profit 15%
■ Price> Rp 100.000 - 300.000 -> Profit 20%
■ Price > Rp 300.000 - 500.000 -> Profit 25%
■ Price > Rp 500.000 -> Profit 30%,

- nett_sales : price after discount
- nett_profit : profit earned by Kimia Farma
- rating_transaksi : consumer rating of the transaction made

2. Analysis Tabel

The result of analysis table:



tabel_analysis | 672K Rows | Refresh options | Schedule refresh

Chart | Pivot table | Function | Extract | Calculated column | Column stats

PREVIEW

transactio	date	branch_id	branch_name	kota	provinsi	rating_trar	customer_	product_ic	product_n	price	discount_j	gross_pro	nett_sales	nett_profi	rating_bra
TRX6565400	1/5/2020	90734	Kimia Farma - Apotek	Sukabumi	Jawa Barat	3.6	Belinda Flores	KF172	Psycholeptics dr	2100	0.15	0.1	2096.85	209.685	4.6
TRX9876181	7/8/2023	47344	Kimia Farma - Apotek	Tanjungpinang	Kepulauan Riau	4.7	Phillip George	KF172	Psycholeptics dr	2100	0.15	0.1	2096.85	209.685	4.9
TRX4786828	10/8/2022	77512	Kimia Farma - Apotek	Cirebon	Jawa Barat	4.1	Jake Hammond	KF172	Psycholeptics dr	2100	0.15	0.1	2096.85	209.685	4.5
TRX5758357	7/20/2023	83742	Kimia Farma - Apotek	Pematangsianta	Sumatera Utara	3.1	Robin Brown	KF172	Psycholeptics dr	2100	0.15	0.1	2096.85	209.685	4.8
TRX6978726	5/26/2022	93878	Kimia Farma - Apotek	Semarang	Jawa Tengah	3.5	Suzanne Miller	KF172	Psycholeptics dr	2100	0.15	0.1	2096.85	209.685	4.5
TRX4949710	4/2/2023	65948	Kimia Farma - Apotek	Tarakan	Kalimantan Utar	4.9	Kathryn Mccarth	KF172	Psycholeptics dr	2100	0.15	0.1	2096.85	209.685	4.4
TRX6546352	2/23/2021	96065	Kimia Farma - Apotek	Karawang	Jawa Barat	3.1	Chelsea William	KF172	Psycholeptics dr	2100	0.15	0.1	2096.85	209.685	5
TRX4605325	5/9/2022	99182	Kimia Farma - Apotek	Makassar	Sulawesi Selatar	3.3	Keith Shaffer	KF172	Psycholeptics dr	2100	0.15	0.1	2096.85	209.685	4.6
TRX6453359	9/19/2021	12027	Kimia Farma - Apotek	Pangkalpinang	Bangka Belitung	3.5	Patrick Martinez	KF172	Psycholeptics dr	2100	0.15	0.1	2096.85	209.685	4.8
TRX1232342	5/30/2023	62312	Kimia Farma - Apotek	Cianjur	Jawa Barat	4.8	Linda Butler	KF172	Psycholeptics dr	2100	0.15	0.1	2096.85	209.685	4.5
TRX7662179	12/17/2022	59765	Kimia Farma - Apotek	Garut	Jawa Barat	3	Monica Kelly	KF172	Psycholeptics dr	2100	0.15	0.1	2096.85	209.685	4.1
TRX8383972	7/22/2020	64080	Kimia Farma - Apotek	Batam	Kepulauan Riau	5	Luis Smith	KF172	Psycholeptics dr	2100	0.15	0.1	2096.85	209.685	4.1
TRX9996563	6/1/2021	43007	Kimia Farma - Apotek	Ciamis	Jawa Barat	4.1	Lisa Campbell	KF172	Psycholeptics dr	2100	0.15	0.1	2096.85	209.685	4
TRX6539812	1/25/2021	17275	Kimia Farma - Apotek	Banda Aceh	Aceh	4.7	Linda Buchanan	KF172	Psycholeptics dr	2100	0.15	0.1	2096.85	209.685	3.9
TRX2246416	9/15/2020	49520	Kimia Farma - Apotek	Subang	Jawa Barat	3.8	Paul Wright	KF172	Psycholeptics dr	2100	0.15	0.1	2096.85	209.685	4.4
TRX7851532	4/23/2022	55171	Kimia Farma - Apotek	Ambon	Maluku	3.8	Amber Davidson	KF172	Psycholeptics dr	2100	0.15	0.1	2096.85	209.685	5
TRX9076074	12/29/2022	12560	Kimia Farma - Apotek	Padang Sidempu	Sumatera Utara	4.7	Joann Daniels	KF172	Psycholeptics dr	2100	0.15	0.1	2096.85	209.685	4.4
TRX7511418	5/31/2020	12802	Kimia Farma - Apotek	Garut	Jawa Barat	3.1	Brandi Martin	KF172	Psycholeptics dr	2100	0.15	0.1	2096.85	209.685	4.1
TRX3291498	11/24/2021	57026	Kimia Farma - Apotek	Pematangsianta	Sumatera Utara	3.5	Jenny Miranda	KF172	Psycholeptics dr	2100	0.15	0.1	2096.85	209.685	4.1
TRX6938546	6/25/2021	47503	Kimia Farma - Apotek	Denpasar	Bali	3.9	Max Sutton	KF172	Psycholeptics dr	2100	0.15	0.1	2096.85	209.685	4.1
TRX9380202	11/26/2020	98676	Kimia Farma - Apotek	Malang	Jawa Timur	4.2	Michael Myers	KF172	Psycholeptics dr	2100	0.15	0.1	2096.85	209.685	4.4
TRX3448274	10/27/2022	49520	Kimia Farma - Apotek	Subang	Jawa Barat	3.9	Andre Hawkins	KF172	Psycholeptics dr	2100	0.15	0.1	2096.85	209.685	4.4
TRX2215482	4/29/2021	67373	Kimia Farma - Apotek	Subang	Jawa Barat	4.6	Christopher Cun	KF172	Psycholeptics dr	2100	0.15	0.1	2096.85	209.685	4.6
TRX1079785	5/13/2021	33816	Kimia Farma - Apotek	Kendari	Sulawesi Tenggc	4.2	Kyle Conley	KF172	Psycholeptics dr	2100	0.15	0.1	2096.85	209.685	4
TRX6387421	12/24/2023	81651	Kimia Farma - Apotek	Bitung	Sulawesi Utara	4.6	John Willis	KF172	Psycholeptics dr	2100	0.15	0.1	2096.85	209.685	4.2
TRX5627898	3/17/2023	15949	Kimia Farma - Apotek	Gorontalo	Gorontalo	3.2	Lisa Miller	KF172	Psycholeptics dr	2100	0.15	0.1	2096.85	209.685	4.6
TRX6917505	12/26/2022	37602	Kimia Farma - Apotek	Garut	Jawa Barat	3.4	Morgan Smith	KF172	Psycholeptics dr	2100	0.15	0.1	2096.85	209.685	4.5
TRX4621252	11/14/2020	28401	Kimia Farma - Apotek	Magelang	Jawa Tengah	4.2	Jennifer Klein	KF172	Psycholeptics dr	2100	0.15	0.1	2096.85	209.685	3.9
TRX4743278	9/25/2021	63673	Kimia Farma - Apotek	Sorong	Papua Barat	4.9	Laura Mitchell	KF172	Psycholeptics dr	2100	0.15	0.1	2096.85	209.685	4.8
TRX6231326	2/2/2020	96487	Kimia Farma - Apotek	Cikampek	Jawa Barat	4.6	Jillian Adams	KF172	Psycholeptics dr	2100	0.15	0.1	2096.85	209.685	4.8
TRX8201605	10/16/2020	96558	Kimia Farma - Apotek	Denpasar	Bali	4.6	Andrea Campos	KF172	Psycholeptics dr	2100	0.15	0.1	2096.85	209.685	4.7
TR 417	3/22/2022	42820	Kimia Farma - Apotek	Mataram	Nusa Tenggara E	3.7	Andrew Bates	KF172	Psycholeptics dr	2100	0.15	0.1	2096.85	209.685	4.1
TRX3083185	11/30/2023	52192	Kimia Farma - Apotek	Karawang	Jawa Barat	3.9	Miss Maria Jens	KF172	Psycholeptics dr	2100	0.15	0.1	2096.85	209.685	4.2

3. BigQuery Syntax

To create an analysis table in BigQuery based on the aggregation of the previous four tables

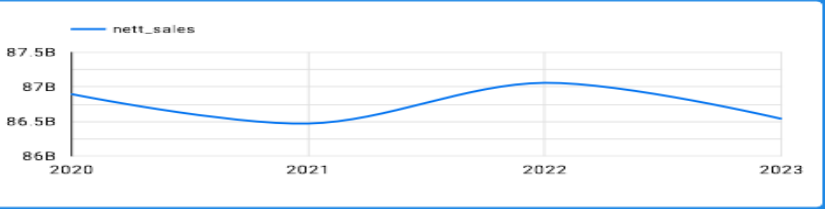
```sql
CREATE TABLE kimia_farma.tabel_analysis AS
SELECT
    a.transaction_id,
    a.date,
    a.branch_id,
    c.branch_name,
    c.kota,
    c.provinsi,
    a.rating AS rating_transaction,
    a.customer_name,
    a.product_id,
    p.product_name,
    a.price,
    a.discount_percentage,
    CASE
        WHEN a.price <= 50000 THEN 0.1
        WHEN a.price > 50000 AND a.price <= 100000 THEN 0.15
        WHEN a.price > 100000 AND a.price <= 300000 THEN 0.2
        WHEN a.price > 300000 AND a.price <= 500000 THEN 0.25
        ELSE 0.3
    END AS gross_profit_percentage,
    (a.price * (1 - (a.discount_percentage / 100))) AS nett_sales,
    (a.price * (1 - (a.discount_percentage / 100)) *
    CASE
        WHEN a.price <= 50000 THEN 0.1
        WHEN a.price > 50000 AND a.price <= 100000 THEN 0.15
        WHEN a.price > 100000 AND a.price <= 300000 THEN 0.2
        WHEN a.price > 300000 AND a.price <= 500000 THEN 0.25
        ELSE 0.3
    END) AS nett_profit,
    c.rating AS rating_branch
FROM kimia_farma.kf_final_transaction a
JOIN kimia_farma.kf_kantor_cabang c ON a.branch_id = c.branch_id
JOIN kimia_farma.kf_product p ON a.product_id = p.product_id;
```

4. Dashboard Performance Analytics

KIMIA FARMA PERMORMANCE 2020-2023

nett_sales	nett_profit
347.0B	98.5B

Pendapatan Kimia Farma dari tahun 2020-2023

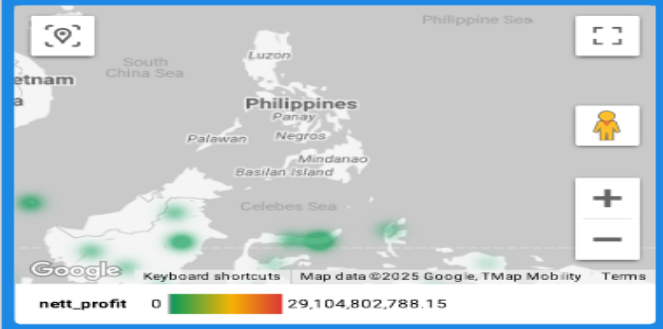


Rating transaksi tiap branch

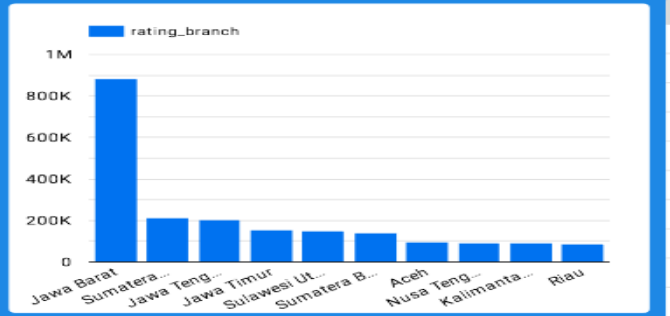
	kota	rating_transaction
1.	Subang	94,852.2
2.	Garut	85,625.6
3.	Purwakarta	79,390.5
4.	Semarang	72,512.3
5.	Ciamis	71,805.3

1 - 70 / 70

Geo Map Profit Provinsi



Top 10 Rating Branch



Top 10 Pendapatan Provinsi

	provinsi	nett_sales
1.	Jawa Barat	
2.	Sumatera Utara	
3.	Jawa Tengah	
4.	Jawa Timur	
5.	Sulawesi Utara	
6.	Sumatera Barat	
7.	Aceh	
8.	Nusa Tenggara Barat	
9.	Kalimantan Timur	
10	Riau	

1 - 31 / 31

LINK

GITHUB

https://github.com/nitasilvana/Kimia-Farma-Big-Data-Analytics-Project-Based-Internship-Program

LOOKER STUDIO

https://lookerstudio.google.com/reporting/7b29216f-6bcf-4652-b694-6315025ab78c/page/p_k7izegk4pd/edit

Thank You

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