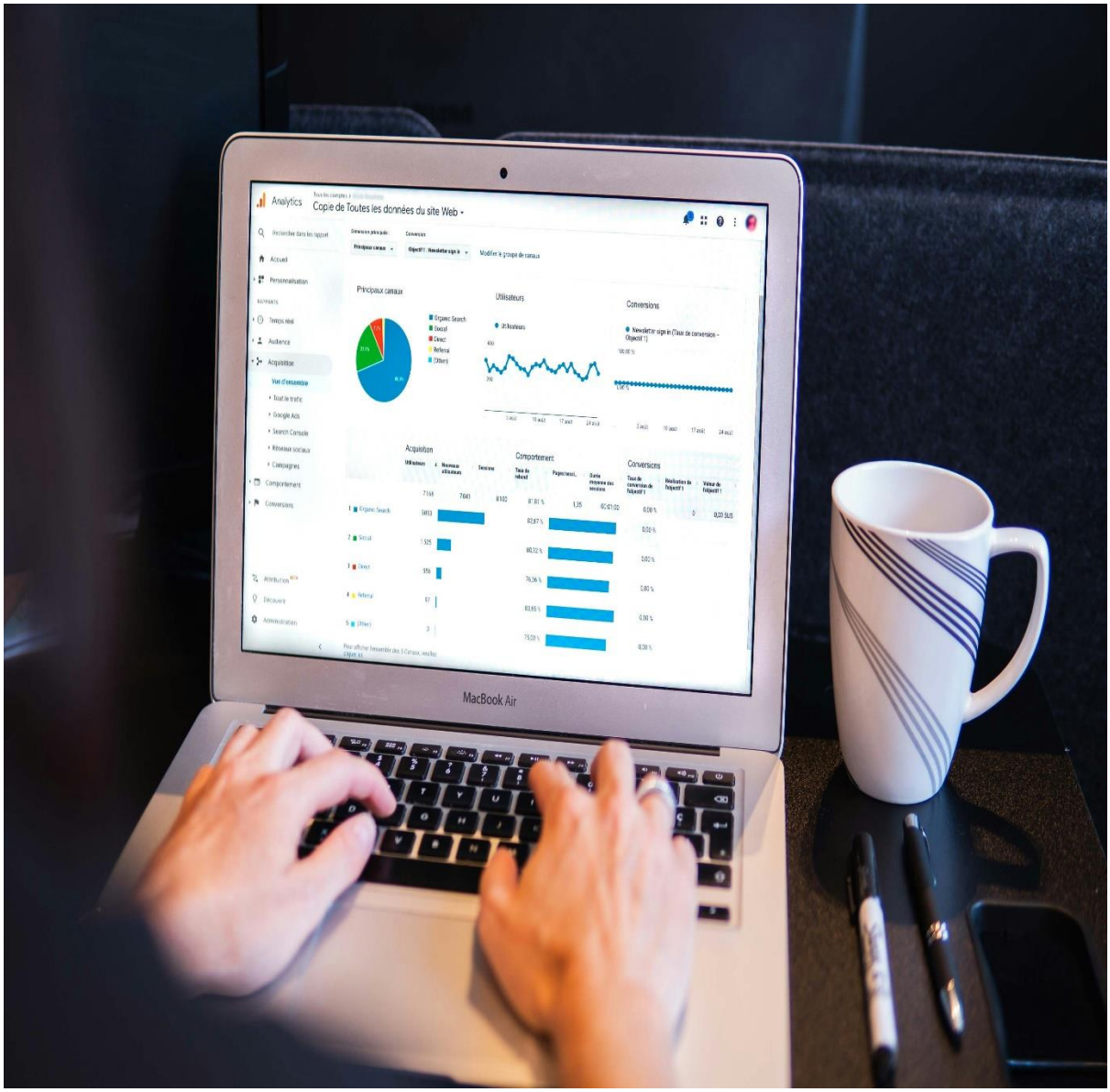
Customer Lifetime Value Prediction

SQL Project



Business Problem:

Mr. Shantanu, owner and founder of “11 Bedsheets”, their business is based on selling bedsheets online. Their USP is that they sell bedsheets of 11 different & unique cloths variety. They are struggling on understanding their customers segments, target groups (TG), customer retentions, revenue each customer generates.

Even Not knowing the lifetime value of customers can lead them inefficient marketing spend and poor customer retention strategies.

My Role:

As a data analyst, they approach me to solve the problem, after some brain storming, I found that business is not aware about important business KPI called CUSTOMER LIFETIME VALUE.

What is Customer Lifetime Value (CLV)?

Customer Lifetime Value (CLV) is a metric that estimates the total revenue a business can reasonably expect from a single customer account throughout the business relationship. CLV helps businesses understand the long-term value of their customers, optimize marketing efforts, and make informed business decisions.

Solving problem with SQL:

```
#Step 1: Calculate the Total Revenue per Customer
SELECT
Customer_id,
SUM(amount) / COUNT(DISTINCT customer_id) AS Revenue_per_cust
FROM
clv.`transaction`
GROUP BY customer_id
ORDER BY Revenue_per_cust DESC;


#Step 2: Calculate the Number of Transactions per Customer


SELECT
customer_id,
COUNT(ransaction_id) AS Transaction_per_customer
FROM
clv.`transaction`
GROUP BY customer_id
ORDER BY Transaction_per_customer DESC;
```

```
#Step 3: Calculate the Average Purchase Value per Customer


SELECT
customer_id, SUM(amount) / COUNT(ransaction_id) AS APV
FROM
clv.`transaction`
GROUP BY customer_id;


#Step 4: Calculate the Customer’s Purchase Frequency


Select customer_id , count(ransaction_id) / count(distinct
transaction_date) as purchase_freq from clv.`transaction`
group by customer_id;


#Step 6: Estimate Customer Lifetime Value


select c.customer_id, c.registration_date,
coalesce( SUM(t.amount) / COUNT(t.ransaction_id ), 0) AS
Avg_pur_value,
coalesce(count(t.ransaction_id) / count(distinct
t.transaction_date),0) as purchase_freq,
(coalesce( SUM(t.amount) / COUNT(t.ransaction_id
),0)*coalesce(count(t.ransaction_id) / count(distinct
t.transaction_date),0) *2 ) as CLV
from clv.`consumer` as c
left join clv.transaction t on c.customer_id = t.customer_id
group by c.customer_id, c.registration_date;
```

Insights:

- **Revenue Per customers:**
  Customer 1 = 300 rs.
  Customer 2 = 150 rs.
- **Transaction Per customers:**
  Customer 1 = 2 transactions
  Customer 2 = 1 transaction
- **Average purchase value Per customers:**
  Customer 1 = 300
  Customer 2 = 300
- **Customers Purchase frequency:**
  Customer 1 = 1
  Customer 2 = 1
- **Customers Lifetime Value:**
  Customer 1 = 300 rs.
  Customer 2 = 300 rs.

Recommendations:

- **Focus on that customers group whose CLV prediction is high, by allocating more resources.**
- **Survey the sentiments, preferences of that group to better understand the customer's taste and liking.**
- **Maintain the retention of customers by offering special deals and offers, based on changing the purchase frequency of customers.**

Thank you!!

By: Harshita Baseera

Aspiring Data Analyst