

RevoFinance: Expense & Budget Utilization Dashboard

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Disclaimer:

1. The analysis is for educational purposes and does not reflect the actual business metrics of RevoFinance.
 2. Insights and recommendations are derived from the provided dataset and may not represent real market conditions.
 3. All insights, dashboards, and metrics should be generated based on personal interpretation and visualization skill.
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Dashboard:

Tableau Public

Objective

Target User

Individual users who want to track their personal expenses.

Dashboard Purposes

- To monitor spending habits across categories (e.g., food, shopping, transport).
- To compare actual expenses vs. budget and avoid overspending.
- To identify trends over time (monthly spending patterns).
- To spot unusual transactions (e.g., very high-value outliers).

Tracked Metrics

- Total Expense → Understand overall spending.
 - Total Transactions & Avg per Transaction → See frequency and spending habits.
 - Spend per Category → Know which areas consume the most budget.
 - Budget Utilization (%) → Key performance indicator: how much of the budget is used.
 - Monthly Spending Trend → Detect seasonality or spikes.
 - Transaction Distribution (bin chart) → Show whether most spending is small, medium, or high-value.
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Data Preparation and Joining Logic

Relationships:

merchant_id → links Personal_Expenses ↔ Merchant_Master

- This relationship allows each expense to be connected with its corresponding merchant.
- Useful because the expenses table only stores merchant IDs, while Merchant_Master provides merchant details (e.g., merchant name, category).

category → links Merchant_Master ↔ Annual_Budget

- This relationship ensures that each expense (through its merchant) can be mapped to the correct budget category.
- Useful for comparing **actual spending** (from Personal_Expenses) against the **planned budget** (from Annual_Budget).

Join Details:

- Join Type: *Inner Join* was used.
 - Between **Personal_Expenses** and **Merchant_Master** (on merchant_id).
 - Between **Merchant_Master** and **Annual_Budget** (on category).
- Why this join logic is correct:
 - Guarantees that every expense has both merchant context and budget category.
 - Ensures no unmatched records are included, which keeps the dashboard accurate and meaningful.

Scorecards: Total Expense, Total Transaction, Average per Transaction

- Visualization Type & Purpose:
 - Text
- Purpose:
 - Give users a quick snapshot of overall financial performance.
- Metrics/Calculations Used:
 - $\text{SUM}(\text{Expense Amount}) \rightarrow \text{Total Expense}$
 - $\text{COUNT}(\text{Transaction ID}) \rightarrow \text{Total Transactions}$
 - $\text{SUM}(\text{Expense Amount}) / \text{COUNT}(\text{Transaction ID}) \rightarrow \text{Average per Transaction}$
- Insight for User:
 - Spending per transaction is relatively high, suggesting fewer but larger purchases rather than many micro-spends.

Total Expense	Total Transaction	Avg/ Transaction
Rp508.510.000,00	1.000	508.510

Category Hierarchy:

Category → Merchant

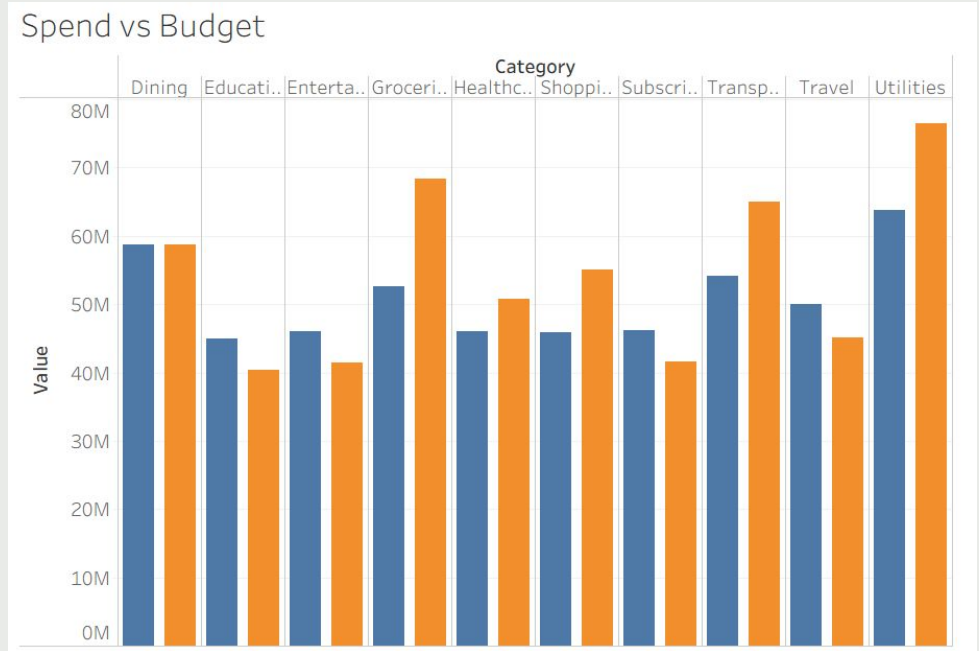
- Visualization Type:
 - Hierarchy drill-down table (Category → Merchant).
- Purpose:
 - Allow users to explore expenses starting from high-level categories down to specific merchants.
- Metrics/Calculations Used:
 - SUM(Expense Amount) grouped by Category and Merchant.
- Insight for User:
 - Largest spending was for utilities followed by dining category. The patterns shift towards online services. Focus on controlling online platforms to avoid overspending.

Hierarchy

Catego..	merchant..	Merchant Name	
Dining	MCH_OFF..	Warteg Barokah	9.692.000
	MCH_OFF..	Bakso Pak Kumis	13.430.000
	MCH_OFF..	Ayam Geprek Ma..	10.537.000
	MCH_ON..	GoFood	7.796.000
	MCH_ON..	GrabFood	10.789.000
	MCH_ON..	ShopeeFood	6.427.000
Educat..	MCH_OFF..	Toko Buku Cerdas	6.184.000
	MCH_OFF..	Bimbel Pintar	9.028.000
	MCH_OFF..	Les Bahasa Inggr..	7.341.000
	MCH_ON..	Ruangguru	6.436.000
	MCH_ON..	Zenius	9.179.000
	MCH_ON..	Skill Academy	6.773.000
Entert..	MCH_OFF..	Studio Musik Ha..	5.868.000
	MCH_OFF..	Warnet GamerZ..	6.978.000
	MCH_OFF..	Bioskop Nusantara..	11.865.000
	MCH_ON..	Netflix	5.286.000
	MCH_ON..	Spotify	6.767.000
	MCH_ON..	VIU	9.348.000

Bar Chart: Spend per Category vs Budget Utilization

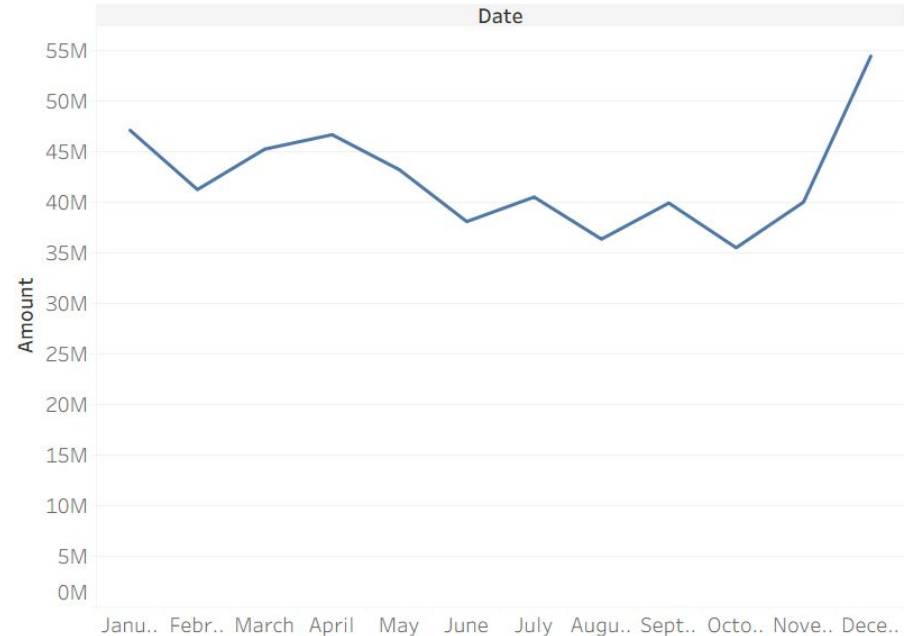
- Visualization Type:
 - Bar Chart with dual axis (% budget utilization + total spend).
- Purpose:
 - Compare actual spend to budget allocation.
- Metrics/Calculations Used:
 - $\text{SUM}(\text{Expense Amount}) \rightarrow \text{Actual Spend}$
 - $\text{SUM}(\text{Expense Amount}) / \text{SUM}(\text{Budget}) \rightarrow \text{Budget Utilization \%}$
- Insight for User:
 - Overspending risk is concentrated in certain categories \rightarrow suggests need for tighter controls or budget reallocation.



Line Chart: Monthly Total Spending Trend

- Visualization Type:
 - Line Chart (Time Series).
- Purpose:
 - Show how spending changes month by month to identify peaks, dips, or seasonality.
- Metrics/Calculations Used:
 - SUM(Expense Amount) grouped by MONTH(Date).
- Insight for User:
 - Seasonal spending surge likely due to holidays or year-end activities. This indicates predictable peaks that can be planned for in budgeting.

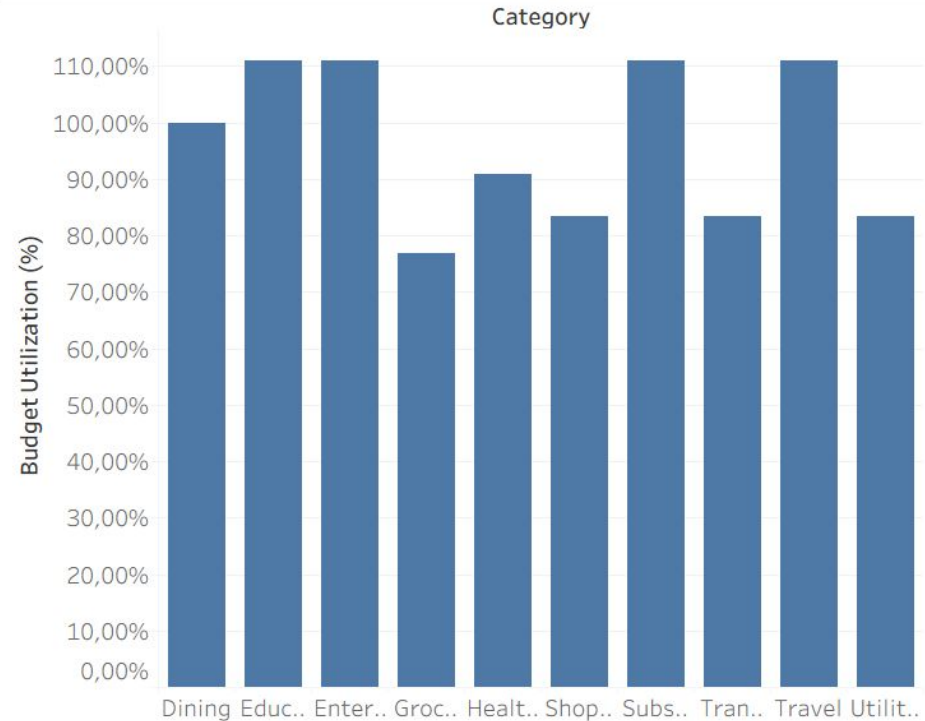
Monthly Spending



Calculated Field: Budget Utilization (%)

- Purpose:
 - Measures how much of the budget has been used, expressed as a percentage.
 - Can be used across categories, merchants, or total spending.
- Insight for User:
 - Budgeting may need rebalancing — funds from consistently underspent categories can be reallocated to those with chronic overspending.

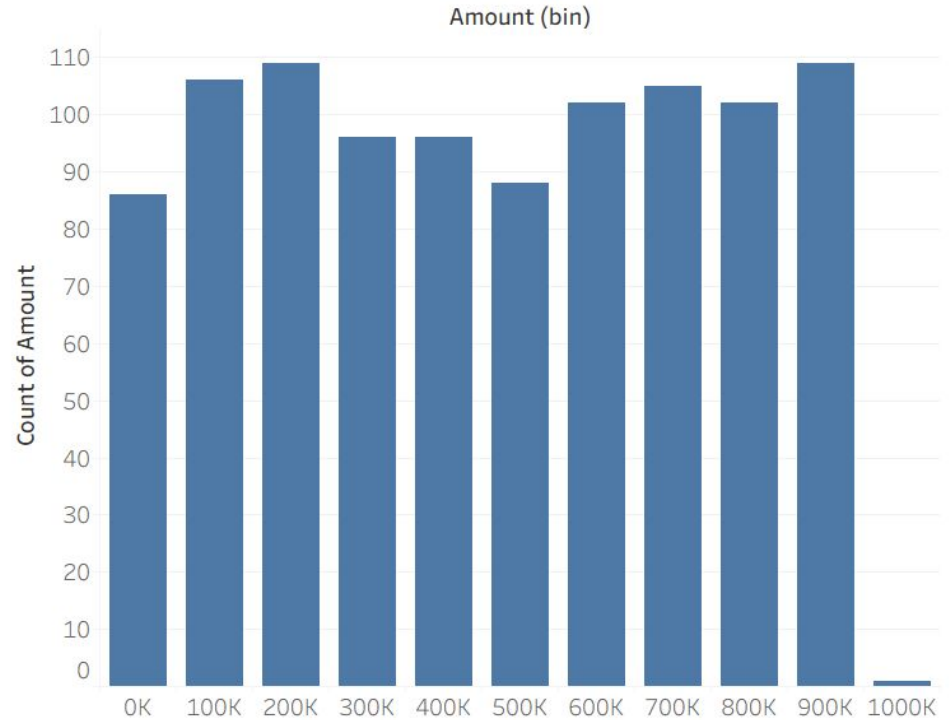
Budget Utilization



Bin Chart: Distribution of Transaction Amounts

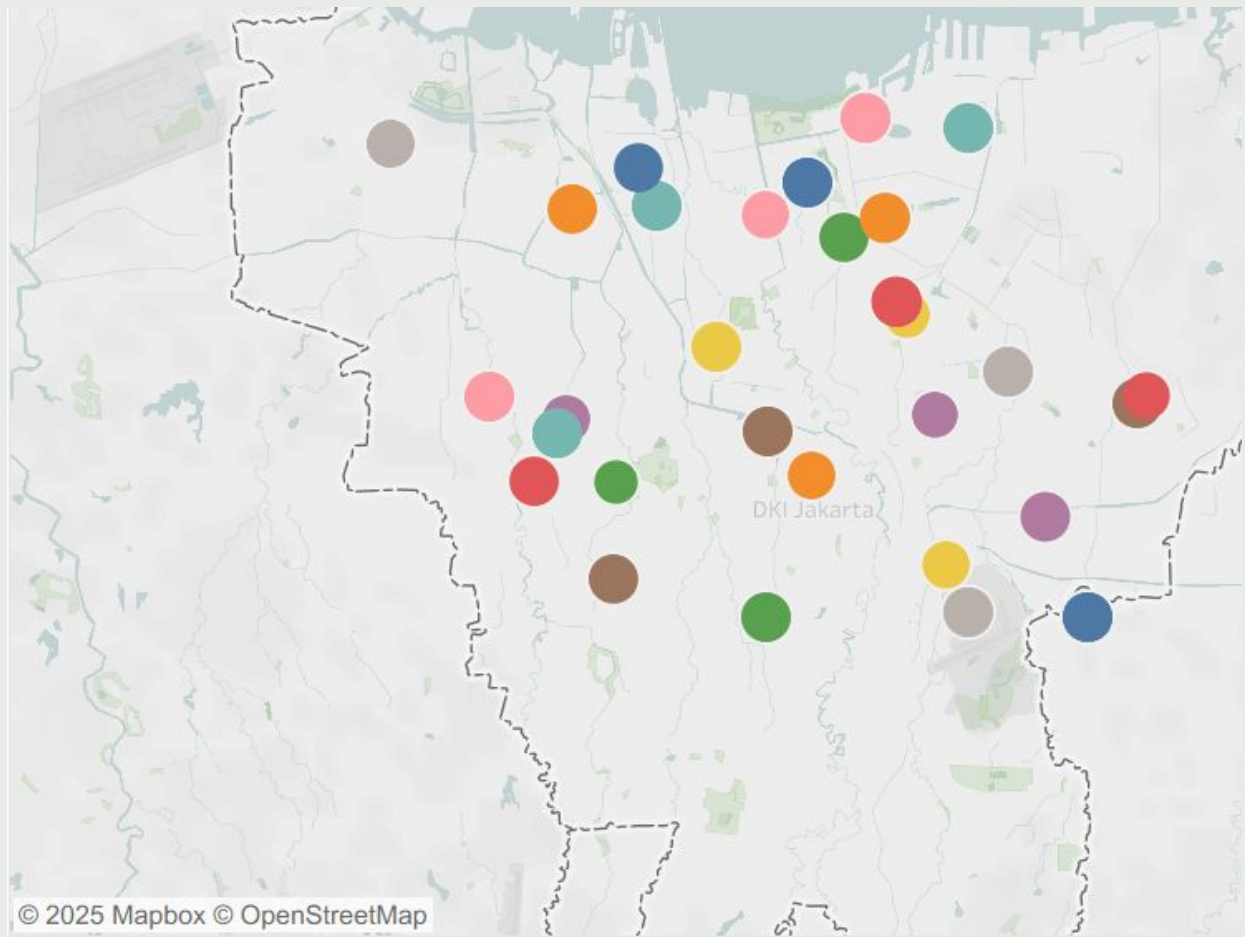
- Visualization Type:
 - Histogram (bin chart).
- Purpose:
 - Show how transaction amounts are distributed across ranges.
- Metrics/Calculations Used:
 - Create Bins on Transaction Amount
 - Use COUNT(Transaction ID)
- Insight for User:
 - Spending is habitual and mid-range, suggesting predictable patterns rather than rare big-ticket outliers.

Bin Chart



Offline Spending Location

Offline spending locations in Jakarta



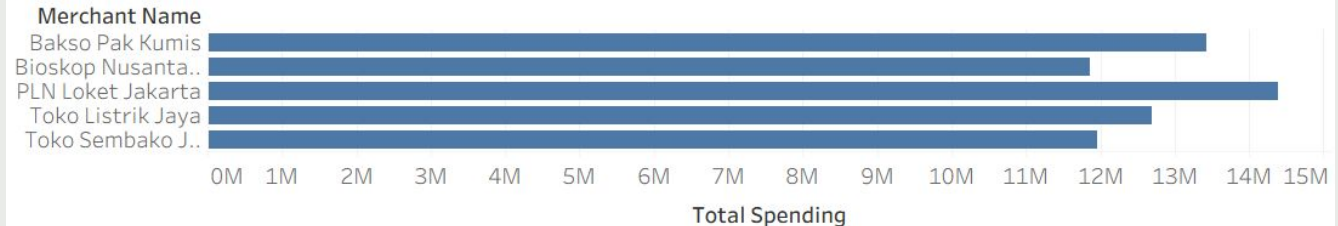
Total Spending Per Merchant Across All Time

LOD

Merchant Na..	
Alodokter	7.525.000
Apotek Sehat	5.439.000
Ayam Geprek Ma..	10.537.000
Bakso Pak Kumis	13.430.000
Bengkel Motor ..	9.649.000
Bimbel Pintar	9.028.000
Bioskop Nusanta..	11.865.000
Bukalapak	5.555.000
GoFood	7.796.000
Gojek	7.771.000
Google One	6.943.000
Grab	8.060.000
GrabFood	10.789.000
Halodoc	9.707.000
HappyFresh	4.736.000
KlikDokter	10.206.000
Klinik Medika	6.504.000
Langganan Maja..	7.780.000
Les Bahasa Ingg..	7.341.000
MAXIM	7.417.000
MyTelkomsel	11.147.000
Netflix	5.286.000

The LOD table shows the total spending per merchant across all time. From there we found the top 5 merchants: Bakso Pak Kumis, Bioskop Nusantara, PLN Locket Jakarta, Toko Listrik Jaya, and Toko Sembako Jaya.

Top 5 Merchant



Running Total of Monthly Spending

Annual spending trend: consistent growth, reaching over Rp500M



Avg/Transaction

508.510

Total Expense

Rp508.510.000,00

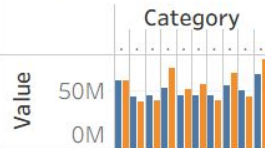
Total Transaction

1.000

Category

- ☒ (A...
- ☒ Di...
- ☒ E...
- ☒ E...
- ☒ G...
- ☒ H...
- ☒ S...

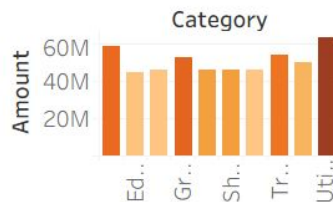
Spend vs Budget



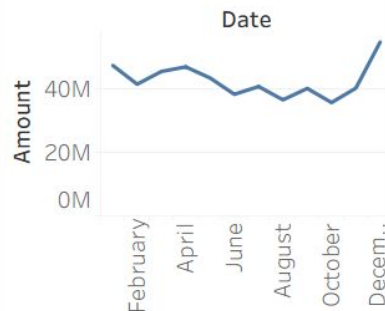
Meas..

- ☒ A..
- ☒ A..

Overbudget



Monthly Spending

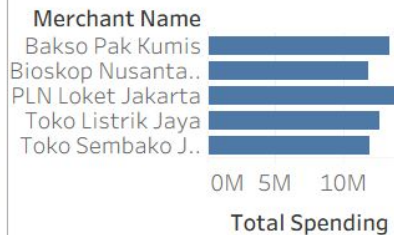


LOD

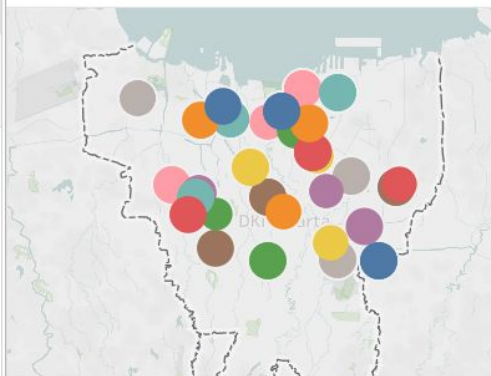
Merchant Na..

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Bengkel Motor ..	9.649.000
Bioskop Nusanta..	8.000.000

Top 5 Merchant



Spending Map



category (Annual!Budget)

- ☒ Dining
- ☒ Education
- ☒ Entertainment..
- ☒ Groceries
- ☒ Healthcare..
- ☒ Shopping
- ☒ Subscrip..
- ☒ Transport
- ☒ Travel
- ☒ Utilities

Type

- ☐ (All)
- ☒ O...
- ☐ Onl...

Amount

- ☐ 10.000
- ☒ 200.000
- ☐ 400.000
- ☐ 600.000
- ☐ 800.000

Bin Chart

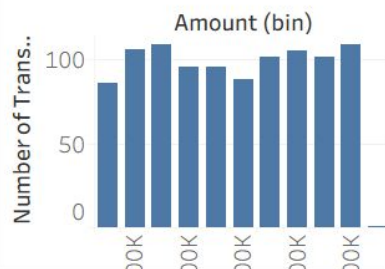
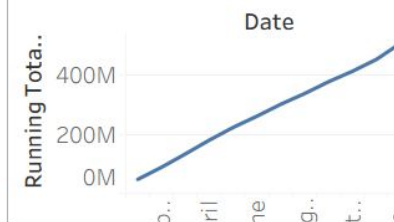


Table Calculation



Thank You!