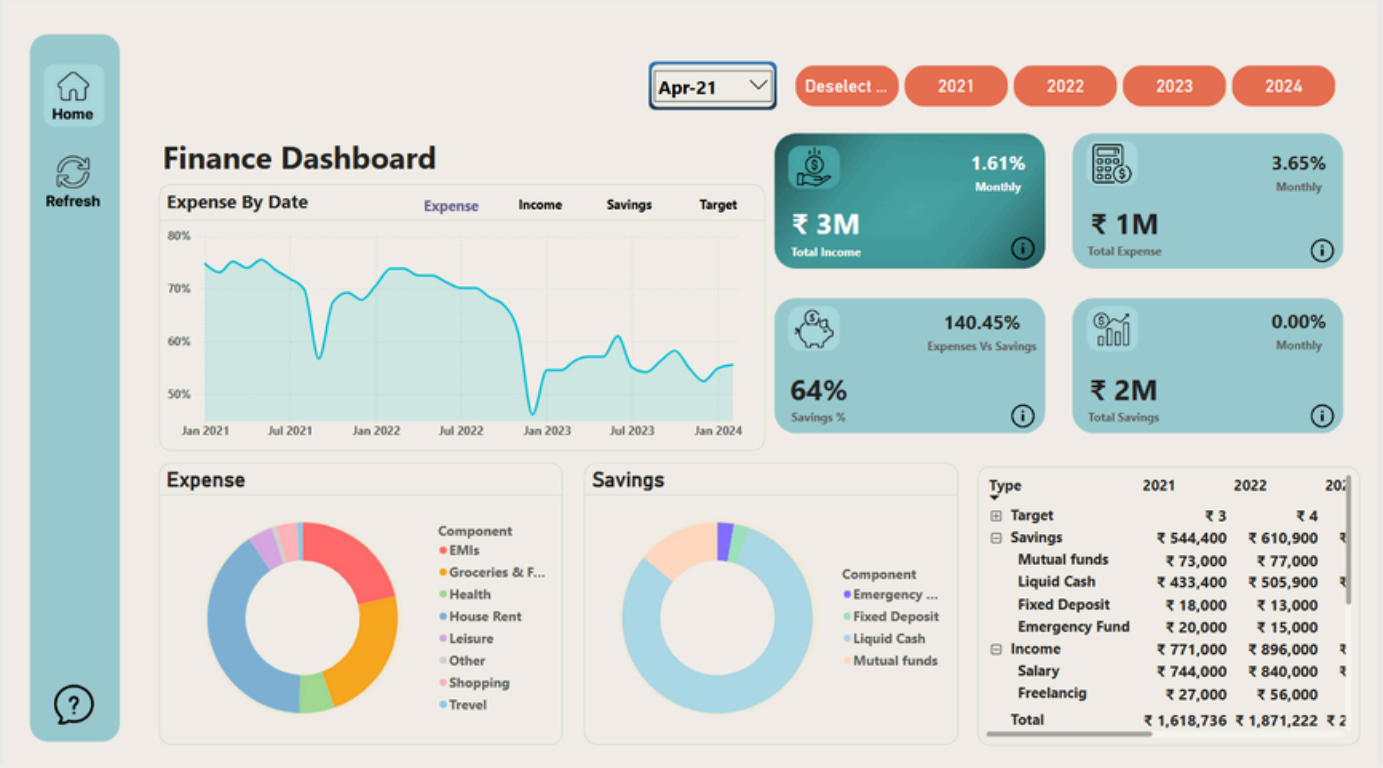
Personal Finance Dashboard



Over view

This Personal Finance Dashboard is a comprehensive financial tracking tool built using Microsoft Power BI. It provides an intuitive visualization of income, expenses, savings, and financial trends over time, empowering users to make informed financial decisions.

The dashboard displays key financial metrics including:

- Total monthly income and expenses
- Savings percentage and trends
- Expense breakdown by categories
- Savings allocation across different investment vehicles
- Historical financial data from 2021 to 2024

Project Objectives

- Create a single-view dashboard for tracking personal finances
- Visualize expense patterns to identify spending habits
- Monitor savings growth and investment allocation
- Compare financial performance across multiple years

  Enable data-driven financial planning and decision making

- Credit card statements

2. **Data Transformation**:
   - Raw financial data was extracted and standardized
   - Transactions were categorized (EMIs, Groceries, Health, etc.)
   - Savings were classified by investment type (Mutual funds, Fixed Deposits, etc.)
   - Historical data was consolidated for trend analysis

Dashboard Design Process

1. **Requirement Analysis**:
   - Identified key financial metrics to track
   - Determined optimal visualization methods for each metric
   - Planned layout for at-a-glance information hierarchy

2. **Wireframing and Design**:
   - Created initial wireframes in Figma
   - Designed a cohesive color scheme with teal/blue palette
   - Optimized layout for readability and information flow

3. **Dashboard Development**:
   - Built interactive visualizations in Power BI
   - Implemented time-based filtering (monthly, yearly)
   - Created metric cards for key financial indicators

Tools and Technologies

Power BI

Used as the primary development platform for creating interactive visualizations and dashboards. Power BI enabled the integration of various data sources and creation of dynamic visualizations.

DAX (Data Analysis Expressions)

Implemented custom calculations using DAX formulas including:

- Monthly income growth percentage
- Expense-to-savings ratio
- Year-over-year financial comparisons
- Running totals for savings accumulation

Power Query

Utilized for ETL (Extract, Transform, Load) processes:

- Cleaned and standardized transaction data
- Created custom financial categories
- Merged data from multiple sources
- Generated date hierarchies for time-based analysis

Figma

Employed for the initial design phase:

- Created wireframes for dashboard layout
- Designed custom icons and visual elements
- Established color schemes and typography
- Prototyped user interaction flows

Dashboard Components

Expense Trend Chart

The line chart displays expense patterns from January 2021 to January 2024, showing significant spending fluctuations. Notable dips in expense percentage occurred in mid-2021 and early 2023, potentially indicating periods of increased saving or reduced discretionary spending.

Key Metrics Cards

Four metric cards provide at-a-glance insights:

- Total Income (₹3M) with 1.61% monthly growth
- Total Expense (₹1M) with 3.65% monthly growth
- Savings Percentage (64%) with comparison to target (140.45%)
- Total Savings (₹2M) with monthly change tracking

Expense Distribution

A donut chart breaks down expenses by category:

- EMIs (largest proportion)
- House Rent
- Groceries & Food
- Shopping
- Health
- Leisure
- Travel
- Other expenses

Savings Allocation

Another donut chart shows how savings are distributed:

- Liquid Cash (largest allocation)
- Mutual Funds
- Fixed Deposits
- Emergency Fund

Financial Summary Table

A detailed table provides yearly comparisons of:

- Income (Salary and Freelancing)
- Savings by investment vehicle
- Target achievements
- Year-end totals

Implementation Details

Data Modeling

- Created relationships between transaction data and category lookup tables
- Implemented date dimensions for time intelligence functions
- Built measures table for centralized DAX calculations

Custom Calculations

```
// Example DAX Measures
Savings % = DIVIDE([Total Savings], [Total Income], 0)
Expenses vs Savings % = DIVIDE([Total Savings], [Target Savings], 0) * 100
Monthly Growth % =
    DIVIDE(
        ([Current Month Value] - [Previous Month Value]),
        [Previous Month Value],
        0
    ) * 100
```

Interactive Features

- Date filter dropdown for specific month selection
- Year selector buttons (2021, 2022, 2023, 2024)
- Information tooltips for additional context
- "Refresh" button to update data

Insights and Benefits

The dashboard provides valuable financial insights including:

1. **Spending Patterns**: The expense trend line reveals seasonal spending patterns and potential areas for budget optimization.
2. **Savings Progress**: The 64% savings rate and 140.45% achievement versus target demonstrates strong financial discipline.
3. **Income Diversification**: The growing freelance income between 2021-2022 shows successful income diversification efforts.
4. **Investment Allocation**: The savings breakdown reveals a preference for liquid cash, suggesting potential opportunities for reallocation to higher-yield investments.

Future Enhancements

- Implement predictive analytics for future expense forecasting
- Add budget planning features with variance analysis
- Integrate direct data connections to banking APIs
- Create mobile-optimized view for on-the-go financial monitoring
- Add financial goal tracking with milestone celebrations

This dashboard was designed and developed as a personal project to improve financial visibility and decision-making.