FINANCIAL EXPENSE OPTIMISATION

OVERVIEW:

This project focuses on building an interactive Financial Monitoring Dashboard using Power BI to help management understand organizational spending patterns and control operational costs effectively. The dashboard analyzes company expenses across multiple expense categories such as development, operational, marketing, training, travelling, and maintenance costs.

The main goal of this project is to transform raw financial data into meaningful insights that support decision-making, improve budgeting accuracy, and identify areas of overspending.

Problem Statement

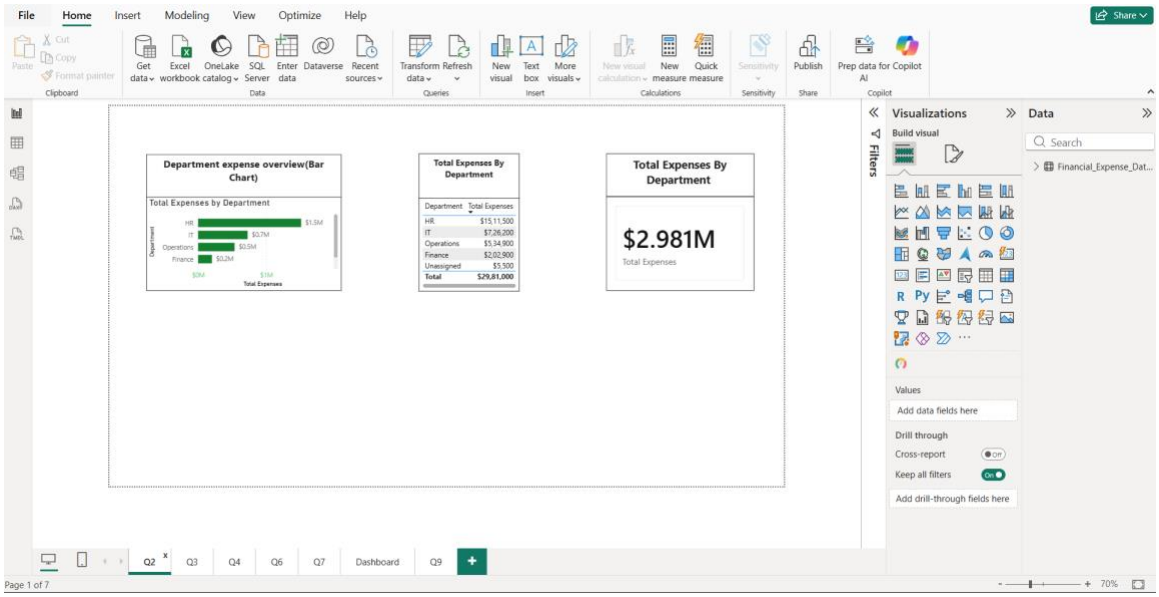
A mid-size enterprise tracks expenses across departments such as HR, IT, Finance, and Operations. Despite stable revenue, operational costs are rising, causing profit margins to shrink.

Finance leadership requires better visibility into department-wise expenses, monthly spending patterns, and expense categories contributing to overspending.

Project Analysis and Answers

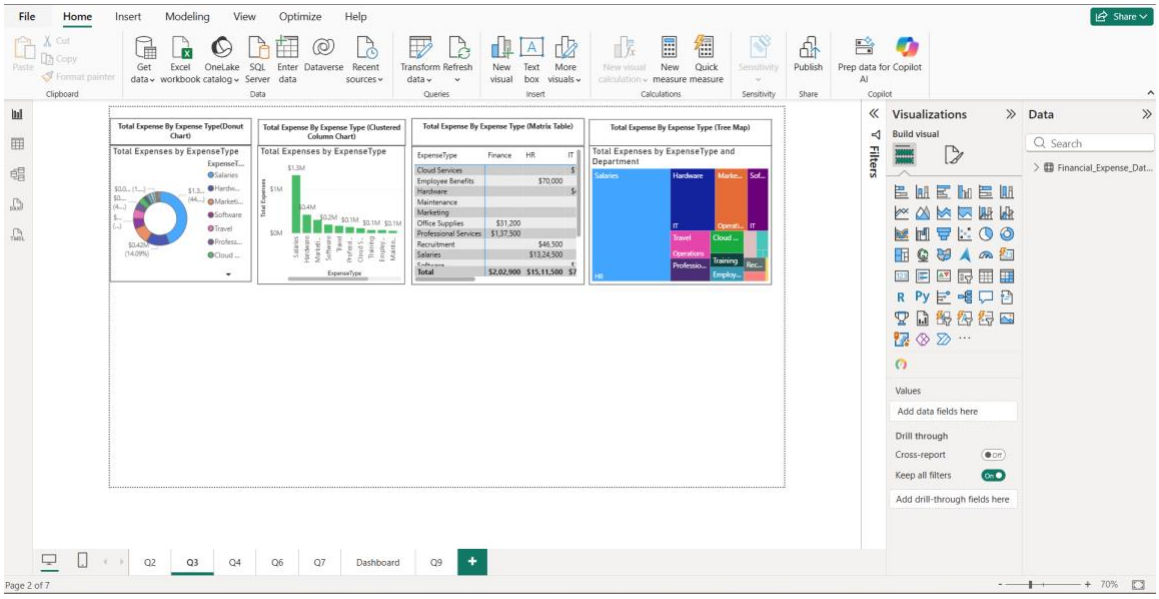
1. Missing or Inconsistent Expense Data

- No significant missing data observed in expense totals.
- Minor inconsistencies in 'Unassigned' department allocations.
- Monthly MoM growth initially showed 0%, indicating formula correction was required.
- Some expense categories had uneven distribution across departments.



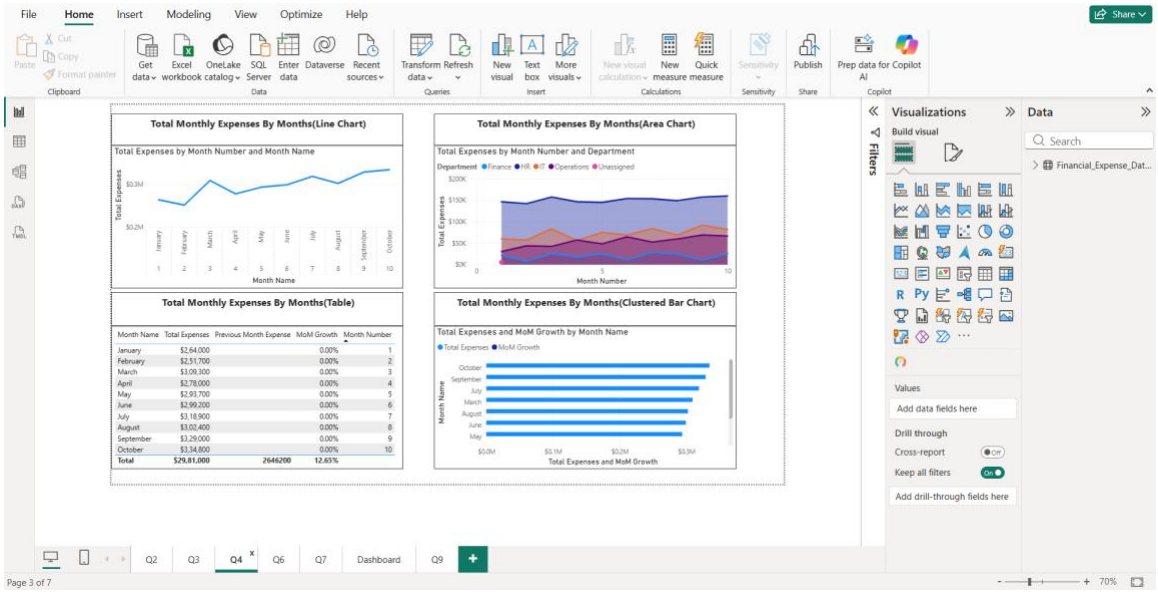
2. Departments with Highest Total Expenses

- HR department has the highest total expenses (~$1.5M).
- IT follows (~$0.7M).
- Operations (~$0.5M).
- Finance (~$0.2M).
- Unassigned minimal.



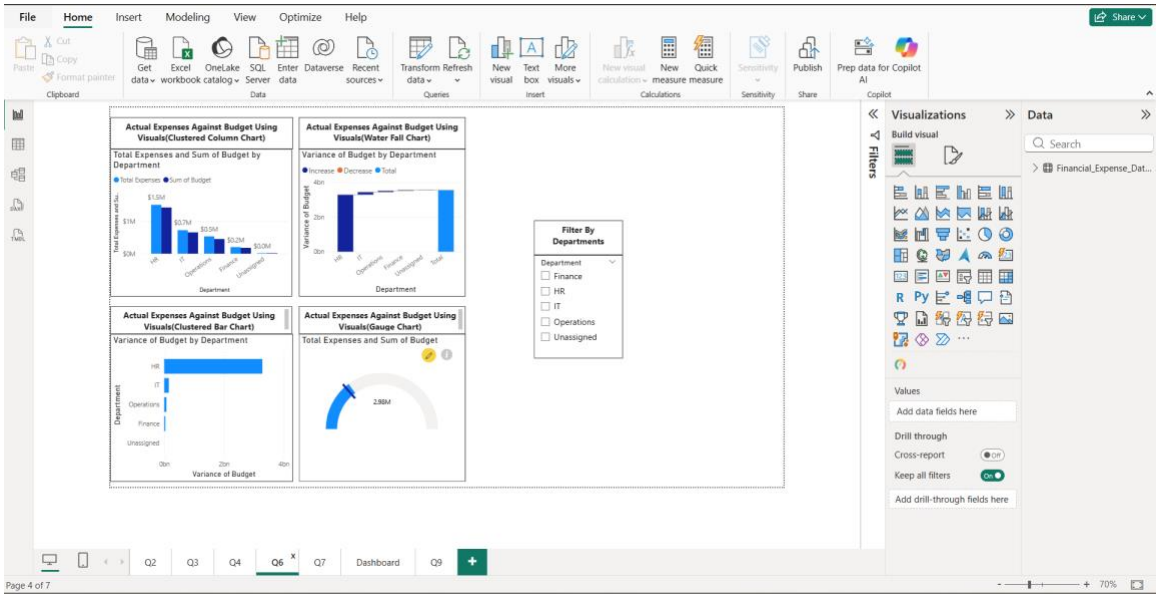
3. Expense Distribution Across Expense Types

- Salaries contribute the largest share of total expenses.
- Hardware and Marketing are secondary contributors.
- Software, Travel, Cloud Services, and Professional Services form moderate portions.
- Salary-driven cost structure indicates workforce-heavy spending.



4. Monthly Expense Trend Analysis

- Expenses show an upward trend from January to October.
- Noticeable increase in March and September-October.
- Overall gradual rise indicating increasing operational costs.



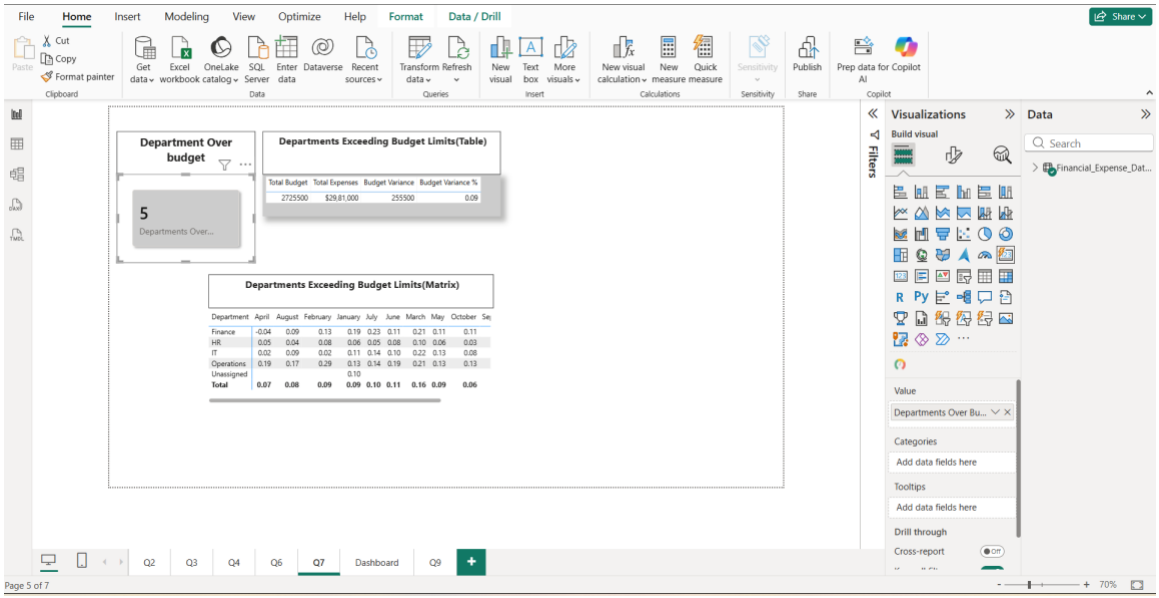
5. DAX Measures

Total Expenses Measure:

Total Expenses = SUM(Expenses[Amount])

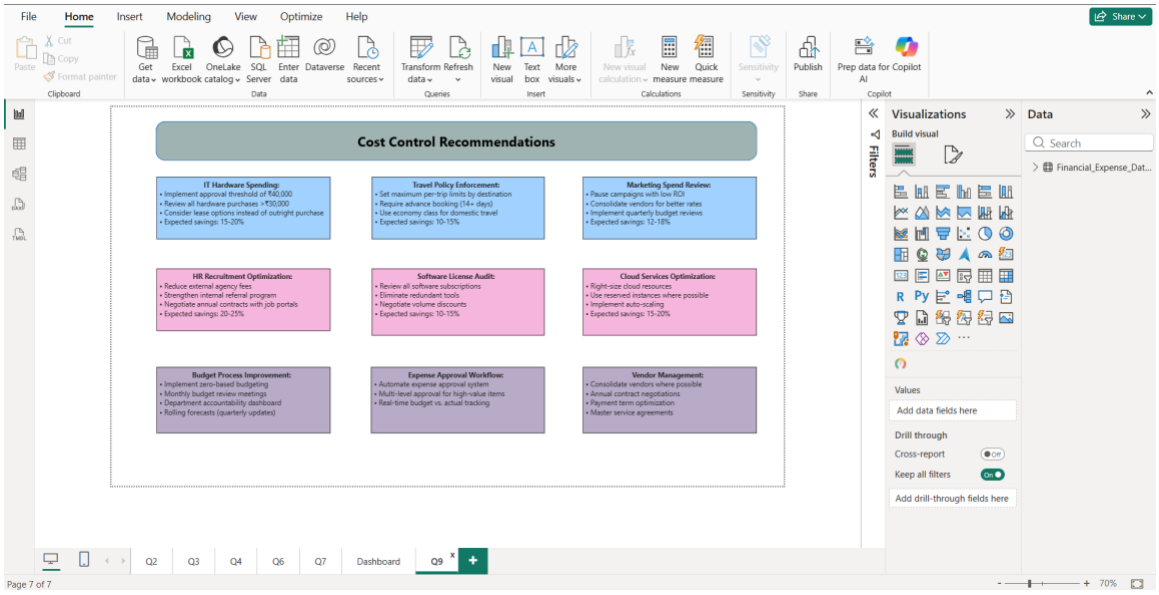
Monthly Average Expense Measure:

Monthly Avg Expense = DIVIDE([Total Expenses], DISTINCTCOUNT(Expenses[Month]))



6. Actual vs Budget Comparison

- Clustered column and bar charts are used to compare actual expenses against the budget.
- Gauge chart displays total expenses vs budget target.
- Waterfall chart highlights variance by department.

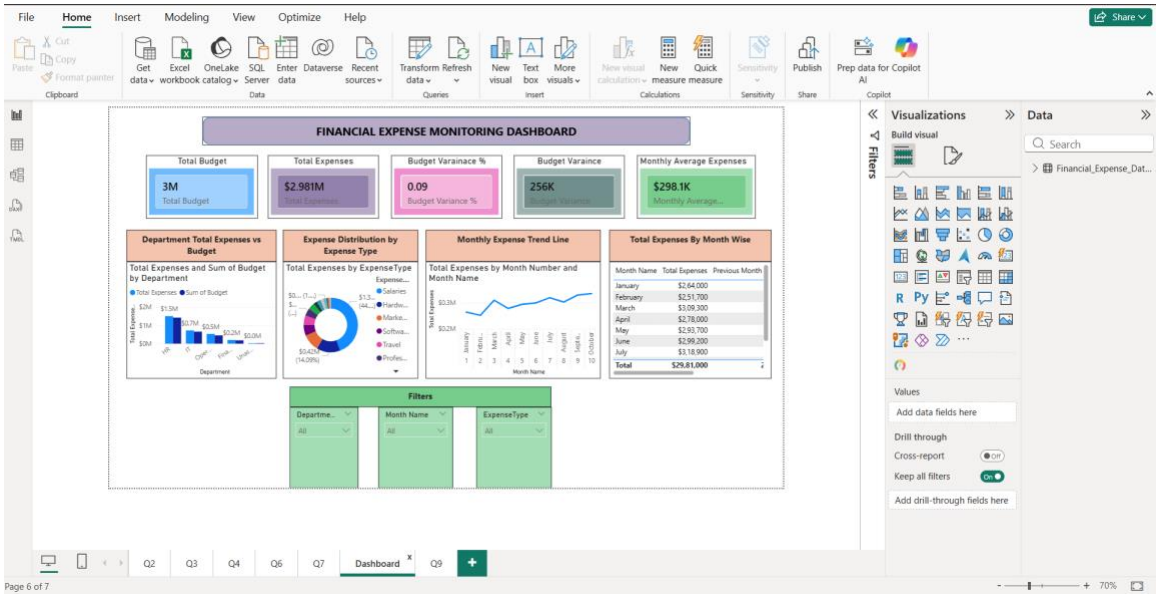


7. Departments Exceeding Budget

- HR exceeds budget significantly.
- IT and Operations show moderate budget variance.
- Finance remains within limits.
- Total budget variance approximately 9% over planned budget.

8. Financial Monitoring Dashboard Design

- KPI Cards: Total Budget, Total Expenses, Budget Variance %, Monthly Average.
- Department-wise expense bar charts.
- Expense type donut & clustered column charts.
- Monthly trend line and area charts.
- Budget variance waterfall chart.
- Filters for Department, Month, and Expense Type.



9. Cost-Control Recommendations

- Implement hardware approval thresholds.
- Optimize travel policies.
- Conduct software license audits.
- Consolidate vendors.
- Implement zero-based budgeting.
- Automate expense approval workflows.
- Use cloud cost optimisation strategies.

Conclusion

The Financial Expense Monitoring Dashboard provides comprehensive visibility into department-wise spending, expense categories, and monthly trends. Through detailed analysis, it was identified that HR and IT departments account for the highest share of total expenses, with Salaries being the primary cost driver across all departments. Monthly trend analysis shows a gradual increase in operational costs, indicating the need for tighter budget monitoring.