Financial KPI Analysis for a Startup

Introduction

The objective of this project is to analyze the financial performance of a startup and measure its key financial indicators (KPIs) such as revenue, expenses, profit, customer acquisition cost (CAC), customer lifetime value (LTV), and runway. These KPIs help in understanding how efficiently the startup is using its resources and sustaining its growth.

Abstract

This project uses an Excel-based dataset covering monthly data of a startup over three years. The dataset includes revenue, expenses, marketing cost, customer base, new customer count, and cash balance. Formulas were applied to compute derived metrics like Profit, Profit Margin, CAC, LTV, Burn Rate, and Runway. A financial dashboard was created in Excel using pivot tables, charts, and conditional formatting to visualize trends in profitability, revenue growth, and cost efficiency.

Tools Used

Microsoft Excel: Formulas and Functions (SUM, AVERAGE, IF, INDEX, OFFSET), Pivot Tables for data summarization, Charts for trend analysis, and Conditional Formatting for KPI visualization.

Steps Involved in Building the Project

1. Data Preparation: Imported a 3-year monthly dataset containing Revenue, Expenses, Marketing Cost, and Customer details. Cleaned missing or inconsistent values. 2. Data Processing and Calculations: Applied formulas to compute Profit, Profit Margin, CAC, ARPC, LTV, Burn Rate, and Runway. 3. Analysis: Examined revenue and expense trends across months and evaluated CAC vs LTV ratio. 4. Dashboard Creation: Built charts for Revenue vs Expenses, Profit Margin Trend, CAC vs LTV, and Runway over Time.

Findings & Insights

• Average monthly Revenue Growth: ~15%. • Average Profit Margin: around 12–18%, but negative in some months due to high expenses. • CAC fluctuated between ■120–■250, while LTV averaged around ■2,000 — a healthy CAC:LTV ratio (>3). • Runway averaged 8–10 months, but dropped below 6 months in later quarters. • Marketing Cost had a direct influence on new customer acquisition, but not always on profitability.

Recommendations

1. Reduce Operating Expenses: Optimize non-essential costs to maintain healthy profit margins. 2. Optimize Marketing Channels: Identify campaigns with lower CAC and higher conversion. 3. Increase Retention: Improve LTV through loyalty programs and upselling. 4. Extend Runway: Maintain a cash reserve of at least 6–8 months. 5. Monthly Monitoring: Continue tracking KPIs through Excel dashboards.

Conclusion

The project demonstrates how Excel can be effectively used for comprehensive financial KPI tracking and decision-making. Through systematic calculation and visualization, the startup’s strengths and risk areas were identified. Continuous monitoring of CAC, LTV, and runway will ensure sustainable growth and better financial planning.