

# Business Financial Analysis

## Objective:

Companies increasingly use AI to analyze internal email data without accessing email content. By detecting topics and sentiments, and identifying internal influencers and outsiders, businesses can better understand how communication flows within the company. This month's report challenge provides participants with a unique opportunity to work with such an AI-enhanced email dataset.

## Data:

Onyx Data: <https://onyxdata.co.uk/>

## Analysis:

The dashboard was created using Power BI for a sports company's financial reporting for 2023. It's divided into three pages: Overview, Profitability, and Insights. Each page is designed to address key financial questions, providing clear, concise answers and a user-friendly experience.

The Overview page highlights the main KPIs and current month growth, featuring a custom visual I created with the help of a YouTube tutorial by Goodly. Although I don't recall the creator's name, the customization was originally introduced by Gusta Dudek. It includes a line graph showing the change in sales growth over any three-month period in 2023, allowing for an analysis across quarters or specific months.

The Profitability section compares profit against revenue, expenses, and their ratios, illustrating the positive correlation between expenses and revenue. However, the analysis of 2023 data shows that revenue was lower than expenses. Notably,

sportswear had the highest net profit, while sports equipment generated the highest revenue, despite a lower net profit. Nutritional supplements fell below the line in terms of net profit.

The Insights page explores the correlation between net profit and profit margin, as well as the relationship between expenses and revenue growth ratios. It also includes a detailed drill-down into expense subgroups, offering insights into the revenue versus expenses and other financial metrics.

## Key Insights:

Some of the key findings from the analysis include:

**Highest and Lowest Sales:** December had the highest Total Sales at \$1,363,275, which was 53.56% higher than April, the month with the lowest sales at \$887,800.

**Revenue Growth Rate:** Q1 had the highest Revenue Growth Rate at 37.35%, which was 376.15% higher than Q3, the quarter with the lowest rate at -13.52%.

**Correlation:** Revenue Growth Rate and Expense Growth Rate are positively correlated.

**Divergence:** The greatest divergence between Revenue Growth Rate and Expense Growth Rate occurred in Q4, where Revenue Growth was 10.94% higher.

**Range of Growth Rates:** Across all four quarters, Revenue Growth Rate ranged from -13.52% to 37.35%, while Expense Growth Rate varied from -5.83% to 43.13%.

**Net Profit:** January had the highest Net Profit at \$694,500, which was 658.27% higher than September, the month with the lowest Net Profit at \$91,590.

**Profit Correlation:** Net Profit and Profit Margin are positively correlated.

**Profit Divergence:** The largest divergence between Net Profit and Profit Margin occurred in January, where Net Profit exceeded Profit Margin by \$694,499.64.

**Range of Profit:** Throughout the year, Net Profit ranged from \$91,590 to \$694,500, while Profit Margin varied between 8.17% and 35.63%.

### **Design/Theme:**

I've created a custom background using Figma, carefully merging colors used in financial analysis. To ensure a visually pleasing and cohesive dashboard, I fine-tuned diverging color palettes using colors.io, achieving a perfect match for each theme. This selected color palette is consistently applied across all visualizations.

