# Vendor Performance Analysis Report

## 1. Project Overview

This report presents an analysis of vendor performance based on the provided dataset and Power BI dashboard. The analysis focuses on sales performance, purchase costs, and vendor efficiency, providing key insights for decision-making.

## 2. Methodology

The dataset was loaded and processed using Python in a Jupyter Notebook. Data cleaning steps included handling missing values, correcting data types, and ensuring consistency across vendor identifiers. Statistical summaries and aggregations were performed to identify top-performing vendors.

## 3. Data Preview

A snippet of the dataset is shown below:

# importing libraries  
  
# loading the dataset  
  
 VendorNumber VendorName Brand Description \  
0 1128 BROWN-FORMAN CORP 1233 Jack Daniels No 7 Black   
1 4425 MARTIGNETTI COMPANIES 3405 Tito's Handmade Vodka   
2 17035 PERNOD RICARD USA 8068 Absolut 80 Proof   
3 3960 DIAGEO NORTH AMERICA INC 4261 Capt Morgan Spiced Rum   
4 3960 DIAGEO NORTH AMERICA INC 3545 Ketel One

## 4. Key Insights

- \*\*Top Vendors by Sales\*\*: Identified vendors generating the highest total sales revenue.  
- \*\*Cost Efficiency\*\*: Vendors with the lowest purchase price per unit for high-selling products.  
- \*\*Volume Leaders\*\*: Vendors supplying the largest quantities overall.  
- \*\*Profitability Analysis\*\*: Vendors contributing the highest profit margins.

## 5. Recommendations

- Focus on strengthening relationships with top-performing vendors.  
- Negotiate better rates with high-volume but lower-margin vendors.  
- Monitor vendors with declining sales trends for potential replacement or renegotiation.  
- Use Power BI dashboards for real-time tracking of vendor KPIs.