

### **ABOUT CLIENT**

- Established in 1970, the company is a prominent wholesaler and distributor of FMCG products in Botswana.
- As a founding member of the UMS voluntary buying group based in South Africa, they ensure access to an extensive range of quality products. With over 1,000 employees, 14 locations, and 21 outlets, the company stocks around 15k line items, catering to resellers and consumers.
- Recognized as a trusted household name, the company is committed to delivering value and reliable service, holding its position as a leading shopping destination for Botswana.

### **PROBLEM STATEMENT**

When sat for the first round of discussion, the company highlighted its struggles with monitoring and analyzing finances and currency management in transactions. Key issues highlighted were:

### Financial Reconciliation and Currency Management:

 Struggling to maintain accurate financial records due to complex, multi-currency transactions. Manually reconciling the flow of goods and funds across their network led to frequent errors and inconsistencies, making it difficult to achieve financial transparency.

### Big Data Analytics:

• Managing the large volumes of data generated weekly had become a significant bottleneck. Without the right tools in place, analyzing this data for trends or actionable insights was nearly impossible, hampering their ability to make timely and informed decisions.

### **SOLUTION**

Our team of engineers collaborated with them to automate financial reconciliation and design a robust data analytics framework to turn vast datasets into timely insights.

### Automated Financial Reconciliation System:

• We introduced an automated system to track transactions in real-time, eliminating manual errors and ensuring accuracy in financial reporting.

### Multi-Currency Conversion Integration:

To streamline international transactions, we developed tools that automatically converted currencies, ensuring consistent and error-free financial records.

### Centralized Data Management Framework:

• We built a scalable, centralized data management platform that allowed the client to store and access their weekly datasets seamlessly, improving efficiency and accessibility.

## Advanced Analytics and Reporting Tools:

 To unlock the power of their data, we implemented advanced analytics tools capable of generating meaningful insights and detailed reports. These tools helped the client identify trends and optimize performance.

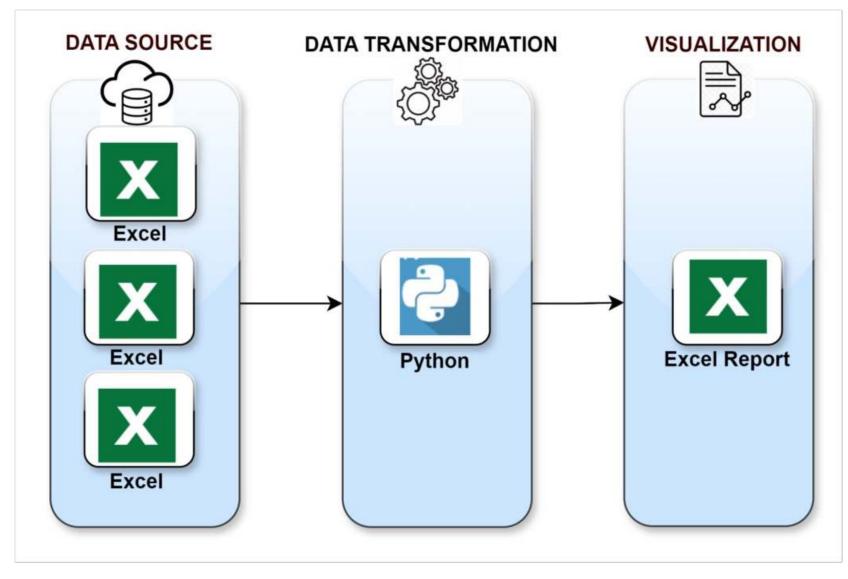
## TECHNICAL IMPLEMENTATION

The tech architecture we put in place was not only effective but also easy to use.

• Data Extraction: We used Python libraries to extract data from Excel files

- **Data Extraction**: We used Python libraries to extract data from Excel files, transforming the manual workflow into an automated process.
- **Data Transformation**: Python scripts processed and structured the data, ensuring it was clean and ready for analysis.
- Automated Reporting: The transformed data was exported back to Excel in an organized format, simplifying access for the client.
  Scheduled Automation: We set up automated scripts to run at specific intervals,
- ensuring that reports were always updated without any manual intervention.

# TECHNICAL ARCHITECTURE



# **BUSINESS IMPACT**

# Accurate Financial Reconciliation:

Automating financial reconciliation resulted in 100% accuracy, with real-time currency conversions reducing reporting discrepancies by 90%.

# Improved Efficiency in Data Management: Centralized data storage reduced data retri

Centralized data storage reduced data retrieval time by 70%, while automated workflows cut manual effort by 80%, enabling faster decision-making.

# Actionable Insights for Better Decisions:

The new analytics framework provided insights with 95% accuracy, reducing decision—making delays by 60% and empowering the client with a proactive approach.

# **Enhanced Visibility into Key Metrics:**Interactive dashboards offered real-ti

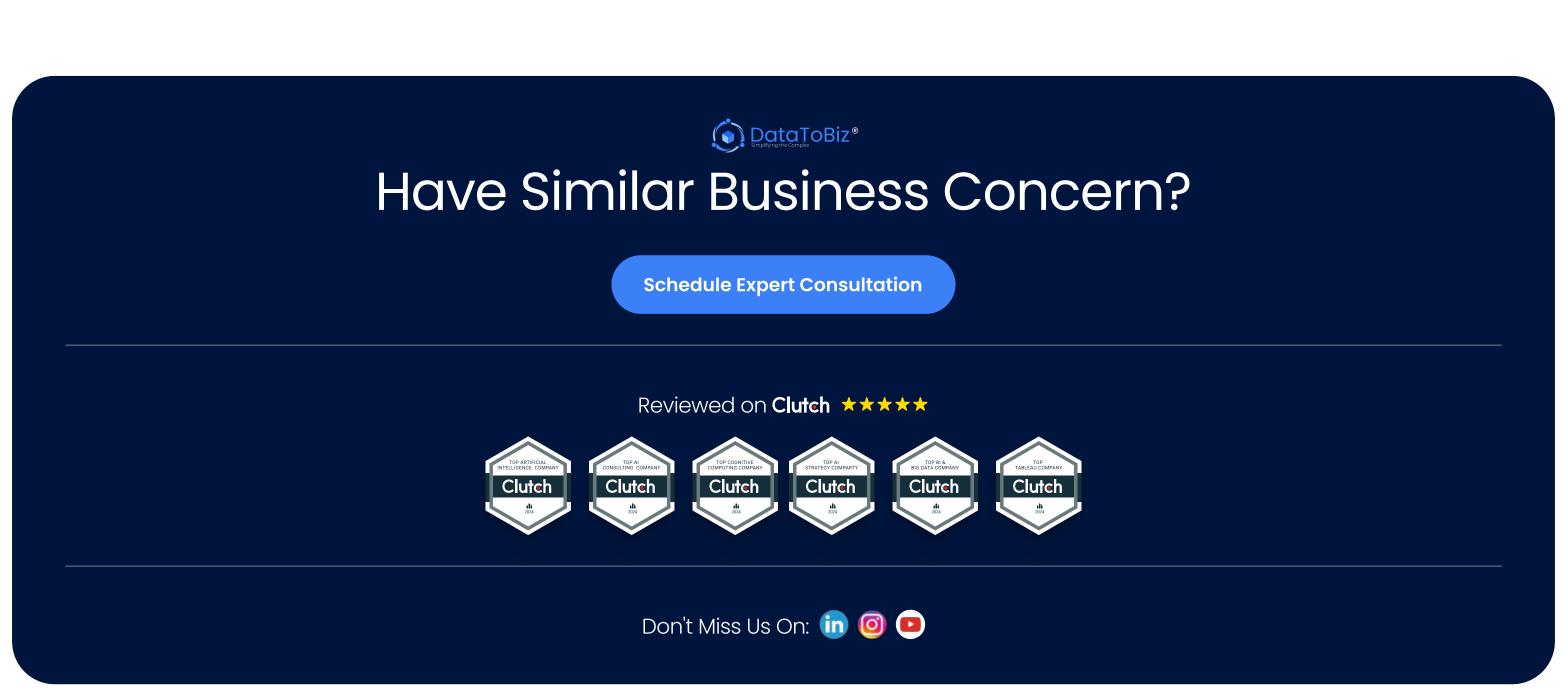
Interactive dashboards offered real-time visibility into key performance indicators, improving stakeholder engagement by 85%.

# Scalable Reporting System: The Python-based solution handled a 190% increase in data volume effortlessly,

ensuring consistent and reliable reporting even as the client's operations grew.

With the implemented centralized analytics framework in place, they now have

accurate, error-free financial records, a streamlined approach to currency management, and powerful analytics tools that turn data into actionable insights. The client is now well-equipped to manage their operations more efficiently and grow with confidence (multi-nation).





**Region** 



North America



Engagement Model
End to End Project Lifecycle Management