

Presentation Script

Project: *Data Visualization: Empowering Business with Effective Insights*

Organization: Tata Group (Forage Virtual Experience)

Presenter: Ann Mary

Good Afternoon, Sir.

My name is Ann Mary, and I'm pleased to present the findings from the data analysis conducted as part of the Tata Forage virtual experience program: *"Data Visualization – Empowering Business with Effective Insights."*

This presentation is based on four key business questions that were shared in advance, addressing critical areas such as sales trends, customer value, regional performance, and market expansion. I've structured my analysis accordingly and developed clear visualizations to support strategic decision-making.

Data Cleaning and Preparation

Prior to building the visuals, the dataset was thoroughly reviewed and cleaned to ensure accuracy. Records with a quantity of less than 1 were removed, as they typically represent returns or invalid transactions. Similarly, entries with a unit price below \$0 were excluded to eliminate input errors. These steps were essential to maintain the reliability and integrity of the analysis.

Visual 1 – Monthly Revenue Trend (2011)

To address the CEO's request regarding seasonal revenue patterns, I created a time series chart showing monthly revenue for the year 2011.

The results indicate a stable trend from January through August, with average monthly revenue of approximately \$685,000. A notable increase begins in September, with revenue peaking in November at around \$1.5 million. Although the December data appears to be incomplete, the upward trajectory from September through November clearly suggests a seasonal surge in Q4. This insight reinforces the importance of preparing marketing and inventory strategies well in advance of this high-demand period.

Visual 2 – Top 10 Countries by Revenue (Excluding the UK)

The second request, raised by the CMO, focused on identifying the top-performing countries outside the United Kingdom.

This bar chart highlights the top 10 countries by revenue, while also displaying quantity sold. Countries such as the Netherlands, Ireland (EIRE), Germany, and France demonstrated strong performance in both metrics. These regions not only contribute substantial revenue but also show high sales volumes — indicating healthy demand and market engagement. These findings support the case for localized marketing efforts and potential investment in these regions to drive further growth.

Visual 3 – Top 10 Customers by Revenue

The third visual presents an overview of the top 10 customers based on total revenue. The customers are ranked in descending order, with the highest-revenue customer shown first.

Interestingly, the difference between the top and tenth customer is relatively small, with the highest contributor generating only about 17% more revenue than the next. This indicates a well-distributed customer base, minimizing dependency on any single buyer. It also presents an opportunity to implement loyalty initiatives for this high-value segment, ensuring continued satisfaction and repeat business.

Visual 4 – Product Demand by Country

The final visual responds to the CEO's interest in identifying regions with high product demand for potential market expansion.

A map visual was used to display quantity sold by country, excluding the UK. The analysis confirms that countries such as the Netherlands, France, Germany, Ireland, and Australia are key contributors to sales volume. It also reveals that most sales are concentrated in Europe, with limited activity in Asia, North America, and Africa. This suggests clear potential for expansion, especially into underrepresented regions. A pilot market entry strategy could help test the feasibility of reaching new global audiences.

To summarize, the analysis delivers four key insights:

1. **Q4 demonstrates a strong seasonal sales trend**, with peak revenue in November.
2. **Several European countries beyond the UK** represent strong and scalable revenue opportunities.
3. **Top customers are evenly distributed**, reducing risk and offering strong retention potential.
4. **Global expansion opportunities exist**, particularly outside Europe, where current activity is limited.

Thank you for your attention. I would be happy to provide further analysis or answer any questions you may have.

Sincerely,
Ann Mary