Demonstrating Data Representation and Reporting

A. Interactive Data Dashboard

1. The dashboard is submitted in a .twbx format and opens correctly in Tableau Public Desktop.

2. The dashboard includes four different data visualizations:

- - Churn by Area (Bar Chart)
- - Age Distribution of Churned Customers (Histogram Chart)
- - Monthly Charges by Contract Type (Circle View Chart)
- - Churn by Internet Service (Bar Chart)

3. Filters: Area and Internet Service are included to allow dynamic interaction with the data.

4. KPIs: Churn Rate and Average Monthly Charge are clearly presented on the dashboard.

5. Accessibility: The dashboard uses colorblind-safe palettes and is tooltip-enhanced for clarity.

B1: Step-by-Step Instructions for Executives

To assist nontechnical executive leaders in accessing and exploring the Tableau dashboard effectively, the following step-by-step instructions are provided:

1. Download and install Tableau Public from https://public.tableau.com/en-us/s/download.
2. Once installed, open the Tableau Public Desktop application.
3. Navigate to File > Open, and select the packaged workbook file (.twbx) provided with this report.
4. The dashboard titled "D601_TelecomDashboard" will open.
5. To use the filters:
   • Locate the “Area” filter on the right side of the dashboard. Use the dropdown to select specific U.S. regions.
   • Locate the “Internet Service” filter just below the Area filter. Use this to view data by internet service types (e.g., DSL, Fiber Optic, None).
6. All graphs and charts will update automatically based on your filter selections.
7. To reset filters, click the small reset icons (circular arrows) beside each filter dropdown.
8. Hover over data points in any chart for tooltips providing additional details.

B2: Alignment Between Purpose and Needs

The purpose of the dashboard is to help executive leaders understand patterns and factors contributing to customer churn, which aligns directly with the organization's goals described in Scenario 2. In a competitive telecommunications environment, customer retention is more cost-effective than acquisition. The dashboard offers visual insights into key drivers of churn—such as internet service type, age distribution, regional differences, and monthly charges—allowing decision-makers to develop targeted retention strategies and enhance service delivery.

B3: Adjusting Storytelling for Different Audiences

When presenting to different audiences, the data storytelling approach must be adapted:
1. Use of Language: For nontechnical leaders, I would avoid technical jargon and focus on business impact and plain-language explanations. For technical teams, I would include terminology like regression modeling, clustering, or outlier detection.
2. Level of Detail: With executives, I would summarize key takeaways and strategic implications. For data professionals, I would provide detailed statistical methods, model accuracy, and data preprocessing techniques.
3. Visual Complexity: For nontechnical audiences, I would emphasize simple, clean visuals and callout annotations. For technical stakeholders, I would supplement the visuals with interactive capabilities, trend lines, and raw metrics.

B4: Effective Storytelling Elements

Two key storytelling elements included in the dashboard presentation are:
1. Visual Context: The dashboard uses color-coded bar charts, histograms, and a circle view chart to compare churn across services and demographics. This visual context makes it easy for executives to recognize areas of concern.
2. Narrative Framing: The presentation frames churn as a challenge with both financial and service-quality implications, helping to emotionally engage decision-makers who are invested in customer satisfaction and company performance.

C: Sources

The only sources used were the official course materials from WGU.