3-2 Assignment

Communicating with Nontechnical Audiences

DAT 300 Valid Data: Getting Data Right

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**Data Quality Brief for Nontechnical Audiences**

**Data Quality Overview**

Data quality means how good or bad the data is. High-quality data is accurate, complete, reliable, relevant, and timely. This ensures the data can be effectively used for operations, decision-making, and planning.

**Purpose of Data Quality**

The primary purpose of data quality is to ensure that data used in business processes and decision-making is accurate and reliable. High-quality data enables organizations to make informed decisions, improve operational efficiency, and maintain regulatory compliance. It also enhances customer satisfaction by providing accurate and timely information.

**Actionable Tools in Microsoft Power BI for Data Quality**

Proposed key tools and how they can assist in decision-making:

Slicer: Slicers are visual filters that allow you to segment and filter data dynamically. They provide an interactive way to filter data by categories, dates, or other dimensions. Slicers help focus on specific subsets of data, making it easier to analyze trends and patterns. For example, as a sales manager, you can use a slicer to filter sales data by region, allowing you to identify which regions are performing well and which need attention.

Filters: Filters in Power BI allow you to refine data by including or excluding specific values. Filters can be applied at the report, page, or visual level. Filters help narrow down data to the most relevant information. For instance, as part of a marketing team, you can use filters to analyze customer feedback based on product categories, helping you understand customer preferences and improve product offerings.

Color Visualization Changes: Color visualization changes involve using different colors to represent data points, making it easier to identify patterns and outliers. This can include conditional formatting, color scales, and data bars. Color visualization changes enhance data readability and highlight important insights. For example, as a financial analyst, I can use color scales to visualize profit margins across different products, quickly identifying which products are most profitable and which are underperforming.

Examples of How These Tools Improve Decision Making:

Slicer Example: As a retail manager, you can use a slicer to filter sales data by product category. By focusing on specific categories, you can identify which products are driving sales and which ones need marketing support. This targeted analysis helps make informed decisions about inventory management and promotional strategies.

Filter Example: As part of a human resources team, you can use filters to analyze employee performance data based on departments. By filtering out low-performing departments, you can identify areas that need training and development. This helps make strategic decisions about resource allocation and employee development programs.

Color Visualization Changes Example: As a project manager, you can use color visualization changes to track project progress. By applying conditional formatting to task completion percentages, you can quickly see which tasks are on track (green), at risk (yellow), or behind schedule (red). This visual representation helps prioritize tasks and address issues promptly.

**Importance of Data Quality Awareness for Other Departments**

It is crucial for other departments to be aware of data quality because data is often shared and used across various functions within an organization. Poor data quality can lead to incorrect decisions, inefficiencies, and increased costs. By understanding the importance of data quality, departments can collaborate to maintain and improve data standards.

**Actions to Preserve Data Quality**

Do: Regularly update and clean data, ensure data entry accuracy, and implement data validation rules.

Don’t: Ignore data anomalies, allow unauthorized access to data, or use outdated data for decision-making.

By leveraging these tools and practices, organizations can ensure high-quality data, leading to better decision-making and improved business outcomes.

Resources

uCertify. (2024). *Ucertify*. UCertify. https://www.ucertify.com/app/?func=load\_course&course=SNHU-DAT300.AP1

Knight, M. (2017, November 20). *What is Data Quality?* DATAVERSITY. https://www.dataversity.net/what-is-data-quality/

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