

Below is the draft email to the client identifying the data quality issues and strategies to mitigate these issues:

Subject: Identification of Data Quality Issues and Mitigation Strategies

Dear Sprocket Central Pty Ltd,

I hope this email finds you well.

After a thorough analysis of the data provided, we have identified several data quality issues that need to be addressed to ensure the accuracy and reliability of our insights. Below is a summary of the identified issues and our proposed strategies to mitigate them:

Data Quality Issues

Transactions Sheet: Missing values in several columns (e.g., Unnamed: 4, Unnamed: 6 to Unnamed: 12).

New Customer List Sheet: Missing values in columns Unnamed: 1, Unnamed: 4, Unnamed: 5, and Unnamed: 6.

Customer Demographic Sheet: Missing values in columns Unnamed: 2, Unnamed: 5, Unnamed: 6, Unnamed: 7, Unnamed: 10, and Unnamed: 12.

Customer Address Sheet: No missing values or duplicates found.

Mitigation Strategies

Handling Missing Values

Imputation: Use statistical methods (mean, median, mode) to fill missing values.

Data Collection: Enhance data collection methods to reduce the occurrence of missing values.

Deletion: If the percentage of missing values is too high, consider removing those records.

Ensuring Data Consistency

Standardization: Implement data entry standards and validation rules.

Data Cleaning: Use tools like Python (pandas) or R to clean and format data consistently.

Addressing Duplicates

Deduplication: Use functions to identify and remove duplicate records.

Data Integration: Improve data integration processes to avoid duplication.

Data Validation

Automated Scripts: Create scripts to validate data integrity and accuracy.

Manual Review: Conduct periodic manual reviews to catch any data quality issues.

We recommend utilizing tools such as Excel, Google Sheets, Tableau, Power BI, Python, and R to implement these strategies effectively. Our team is ready to assist you in addressing these issues and ensuring the highest quality of data for your business needs.

Please let us know your thoughts on these strategies and if there are any specific areas you would like us to focus on.

Thank you for your attention to this matter.

Best regards,

Reuel