Dear Sprocket Central Pty Ltd,

Thanks for entrusting us with your data, after receiving your datasets, and performed the initial stage of the analysis, the below table summarizes the data quality issues found in the datasets.

Datasets	Accuracy	Completeness	Consistency	Currency	Relevancy	Validity	Uniqueness
Transactions	**Profit:** Not available	**Cusomer_id:** Incomplete **Online_order:** blank values **Brand:** blank values **Product_size:** blank values **Standard_cost:** blank values				**List_price:** Unit not mentioned **Product_first_sold_date:** wrong format	
CustomerDemographic	**DOB:** inaccurate value **Age:** missing	**Job_title:** Blank values **Customer_id:** Incomplete	**Gender:** inconsistency values	**Deceased_indicator:** "Y" values present	**Default:** Not relevant to our analysis	**Default:** The values are not allowed	
CustomerAddress		**Customer_id:** Incomplete	**State:** inconsistency values				

More detailed explanations of the data quality issues found in the datasets and strategies to mitigate these issues are elaborated below, some recommendations are also mentioned to maintain quality data in the future.

Accuracy:

- **DOB:** there was inaccurate value in this column for the "CustomerDemographic" table
  Mitigation: Filter out the outlier or replace the wrong value with the correct value
- **Age:** This column is missing from the "CustomerDemographic"
  Mitigation: It will be extracted out from the DOB column
- **Profit:** profit column was supposed to be present in the "Transaction Table" but it wasn't.
  Mitigation: We will create the column and calculate the value from the "standard_cost" and "list_price" columns

  Recommendations: We recommend the creation of Age and Profit columns for completeness of our table for more accurate analysis.

Completeness:

- **Customer_id:** we noticed that the Customer_id column values are incomplete from all the tables in the dataset.
  Mitigation: We will filter out the first 3490 from all the tables, and work with that throughout our analysis
  Recommendations: We recommend given out updated data for analysis, and make sure all the customer_id columns are consistent throughout the table.
- **Online_order:**
- **Product_size:**
- **Standard_cost:**
- **Job_title:**
- **Brand:**
  "All the above-listed columns contain blank values across their relevant table"
  Mitigation: We will filter out the blank values.
  Recommendations: Simplify filling of columns by providing a dropdown menu.

Consistency:

- **Gender:** inconsistency value of gender column in the "CustmoerDemography" table
  Mitigation: We will format and use unique values (i.e M for Males and F for females)
- **State:** inconsistency in the state column
  Mitigation: We will do the same formatting as we mention for the gender column and use a unique value
  Recommendations: Create a dropdown menu, for easy filling of the columns

Currency:

- **Deceased_indicator:** The "Y" value present in this column signifies the customers are not more existing and in our customer list.
  Mitigation: It would be filtered out from the table before analysis
  Recommendations: It's advisable to constantly get the deceased_indicator status of our customers.

Relevancy:

- **Default:** This column is not relevant for our analysis
  Mitigation: It would be deleted
  Recommendations: Always remove all the irrelevant columns from our tables.

Validity:

- **List_price:** No currency unit to identify the column as price
  Mitigation: We will format the value to currency (i.e $ sign)
- **Product_first_sold_date:** Not in date format
  Mitigation: we will format it to date format.
  Recommendation: Always format columns to specific data types, to facilitate easy analysis.

As mentioned above, this summarizes the first stage of our analysis where data quality issues are highlighted, moreover the mentioned mitigations are the best strategies we can apply to have clean and accurate data for further analysis.
Kindly let's know if you have any questions related to our mentioned mitigation or data quality issues.

Thank You!

Regards,
Mujaheed Ayinde.