Subject: Data Quality Report for Sprocket Central Pty Ltd

Dear Manager,

I am writing to provide you with the data quality report that you requested. This report outlines the quality of your company's data and identifies any potential issues that need to be addressed before they can be effectively analyzed to optimize your marketing strategy and drive business growth.

After a thorough review and data quality analysis of the datasets you provided, we have identified some key areas of concern and provided mitigation strategies and recommendations, which are summarized in the table below:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Data Sheet** | **Data Quality Index** | **Issues** | **Mitigation Strategies** | **Recommendations** |
| Transactions | Accuracy | Missing vital column (profit column) |  | Creating a profit column makes financial analysis easier and checks for errors in sales data. |
| Completeness | Missing data - null values present in columns (online\_order, brand, product\_line, product\_class, product\_size, standard\_costs and product\_first\_sold\_date). | Remove null values by filtering out the blanks in these columns. |  |
| Relevancy | Irrevalant data (order\_status[cancelled] is not needed) | Discard cancelled order status by filtering out. | Cancelled orders data is not relevant, and may give rise to bias and inaccurate analysis |
| Validity | Value format (list\_price, product\_first\_sold\_date) | Format list\_price and product\_first\_sold\_date columns to currency and date format. | Price and date should have a default currency and date format to enable easier interpretation |
| Customer Demographic | Accuracy | Missing vital column (age column), Inaccurate data (DOB column) | Filter out blanks and redundant values in DOB to remove the error. | Create an additional column for age to make checking for the accuracy of DOB easier. |
| Completeness | Missing data- null values present in columns (last\_name, job\_title, tenure | Remove null values by filtering out the blanks in these columns. |  |
| Consistency | Inconsistency in the gender column | Correct inconsistent gender representation and filter out gender categories | Create a drop-down selection menu for gender to minimize entry error/disparity |
| Currency | Deceased customer data in the deceased\_indicator column is not needed | Filter to remove deceased customers | Updating and removing deceased customers from the database improves the accuracy of business analysis and forecasts. |
| Relevancy | The default column is irrelevant | Delete metadata value in the default column |  |
| Customer Address | Completeness | Missing data- null values present in columns(customer\_id) | Remove null values by filtering out the blanks. | Only customers with complete data can be useful for analysis |
| Consistency | Inconsistency in the state column | Correct inconsistent state representation and filter out | Create a drop-down selection menu for states to minimize entry error/disparity |

We believe that addressing these issues and following recommendations will result in improved data quality and more accurate analysis, and better business outcomes. If you have any questions or require additional information, please do not hesitate to contact me. I will be happy to answer any questions you have.

Thank you.

Sincerely,

Aminat Odedeyi

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