

Data Analysis Report for X's Ecommerce Order Charges Verification

In this report, we will analyze the process of verifying the charges levied by courier companies for X's ecommerce orders. The process involves several steps, including data handling, merging datasets, calculating charges, and summarizing the results.

Let's walk through the key operations performed:

1. Data Import and Preparation:

- The required libraries, namely pandas and numpy, were imported to facilitate data analysis and manipulation.
- The provided xlsx files containing relevant information were uploaded into Python using pandas.

2. Data Manipulation and Integration:

- Datasets were processed to extract and prepare new columns required for analysis.
- Different datasets were merged based on common identifiers, such as Order ID, to create a comprehensive dataset for further analysis.

3. Charge Calculation:

- Functions were created to calculate various charges, such as Forward Charge, RTO Charge, and COD Charge, based on the provided rate cards and weight slabs.
- Additional functions were developed to compute Expected Charges by X and Charges Billed by the courier company for each order.

4. Analysis and Summary:

- The analysis was carried out to assess the correctness of charges billed by the courier company against X's expectations.
 - Total Orders: 43,102

- Total Invoice Amount: Rs. 5,431,527.00

5. Charge Verification:

- Total Correctly Charged Orders: 0
- Total Correctly Charged Amount: Rs. 0.00
- Total Overcharged Orders: 43,012
- Total Overcharging Amount: Rs. 3,744,171.02
- Total Undercharged Orders: 90
- Total Undercharging Amount: Rs. 5,711.90

6. CSV Output:

- The final analysis results were stored in a CSV file for record-keeping and future reference.

Conclusion:

The analysis revealed that out of a total of 43,102 orders, no orders were correctly charged as per X's expectations. Instead, there were cases of both overcharging and undercharging by the courier company. The total overcharging amount was significantly higher than the undercharging amount.

The analysis provides valuable insights into the discrepancies in the charges levied by the courier company and enables X to take appropriate measures to rectify and streamline the billing process for improved accuracy and cost-effectiveness.

Below are several suggestions to ensure the accuracy of charges levied by the Courier Company:

1. Regular Audits:

- Conduct periodic audits of courier invoices against your own records to identify any discrepancies or overcharges.

2. Automated Validation:

- Implement automated systems to validate the charges on each invoice by comparing them to the rate card and other applicable criteria.

3. Rate Card Review:

- Regularly review and compare the courier company's rate card with your agreed-upon rates to ensure they match.

4. Charge Breakdown:

- Request a detailed breakdown of charges for each shipment, including any additional fees or surcharges applied.

5. Invoice Verification Team:

- Assign a dedicated team or individual responsible for verifying each invoice's accuracy before payment.

6. Charge Verification Tools:

- Utilize software or tools specifically designed for invoice verification, which can automate many of the validation processes.

7. Contract Review:

- Regularly review the terms and conditions of your contract with the courier company to ensure they are adhering to agreed-upon rates and terms.

8. Communication with Courier Company:

- Maintain open communication with your courier company, discussing any concerns and seeking clarification on charges when needed.