Ecommerce Delivery Analytics Project

1. Introduction

1.1 Project Overview

With the growing e-commerce industry, efficient delivery and refund management are crucial for customer satisfaction. This project analyzes delivery efficiency, refund requests, and customer feedback to uncover patterns and insights that can improve service quality.

1.2 Objective

- To analyze refund status based on customer feedback.
- To identify the most sold product categories across different platforms.
- To understand refund request trends by platform.
- To assess the impact of delay on refund requests.

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2. Data Description

The dataset consists of e-commerce delivery transactions, including:

- **Delivery Feedback** (Ease of Delivery, Timeliness, Service Quality, etc.)
- **Refund Requests** (Approved/Denied status across platforms)
- **Product Categories** (Dairy, Grocery, Fruits & Vegetables, etc.)
- **Platform Data** (Blinkit, JioMart, Swiggy Instamart)

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3. Data Analysis and Insights

3.1 Refund Status with Feedback

The analysis explores how customer feedback correlates with refund approvals. Customers giving poor delivery feedback (e.g., "Horrible," "Not Satisfied") are more likely to receive refunds.

3.2 Most Selling Product

The most frequently sold product categories include Dairy, Fruits & Vegetables, Grocery, and Snacks across Blinkit, JioMart, and Swiggy Instamart. The data indicates a balanced demand for essential groceries across platforms.

3.3 Refund Request Trends by Platform

Refund requests are analyzed for different platforms:

- Blinkit, JioMart, and Swiggy Instamart show similar refund trends.
- Blinkit has a slightly higher proportion of refund approvals compared to others.

3.4 Impact of Delay on Refunds

Customers who experienced delays in delivery are more likely to request refunds. The number of refund approvals is significantly higher for delayed deliveries.

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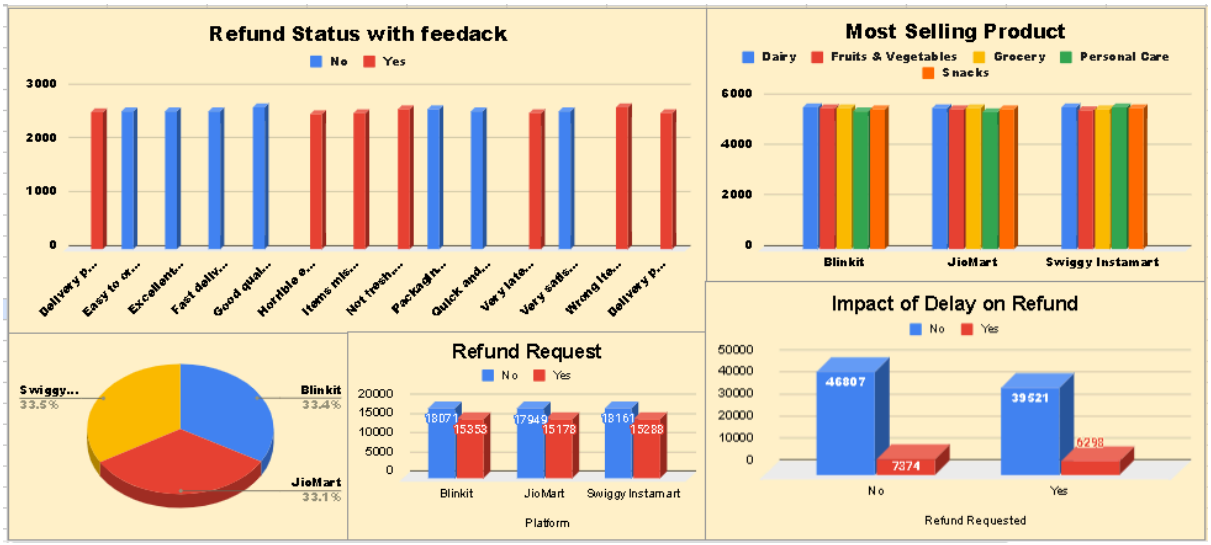
4. Visual Representations

The following visualizations illustrate key insights:



1. **Refund Status with Feedback** (Bar Chart)
2. **Most Selling Products by Platform** (Grouped Bar Chart)
3. **Refund Request by Platform** (Bar Chart)
4. **Impact of Delay on Refunds** (Bar Chart)
5. **Sales by Platform** (Pie Chart)

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5. Conclusion and Recommendations

5.1 Key Takeaways

- Negative delivery feedback is correlated with higher refund approvals.
- Essential groceries dominate sales across e-commerce platforms.
- Refund request trends are similar across platforms, but Blinkit shows a slightly higher approval rate.
- Delayed deliveries significantly impact refund requests.

5.2 Business Recommendations

- Improve logistics to minimize delays and reduce refund requests.
- Enhance customer service to address issues proactively before refunds are requested.
- Conduct further analysis on product-wise return trends for better inventory management.

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6. Future Scope

- Implement machine learning models to predict refund probabilities.
- Develop an automated customer support system for handling refund queries.
- Expand the analysis to include delivery partner efficiency and region-wise trends.

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7. References

- Dataset collected from e-commerce platforms.
- Customer feedback insights gathered through analytics tools.
- Link of original data: Ecommerce_Delivery_Analytics_New

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