

New York TLC Project Statistical Review

Executive Summary Report

Project Overview

In this part of the project, the TLC would determine if the customers using credit card tends to pay a higher fare than the customers who pay using cash.

Key Insights

- A/B testing show that there is statistically significant evidence that customers who pay using credit card tend to pay more than customers who pay using cash.
- Therefore, encouraging customers to pay using credit card would likely generate more revenue.

Details

Process:

1. Collecting the data from an experiment where customers are divided into two groups: (A) customers who pay using credit card and (B) customers who pay using cash.
2. Computing descriptive statistics to get an initial understanding of the average fare amounts paid for each method of payment.
3. Performing a two-sample t-test to determine whether there is statistically significant evidence that there is a difference in average fare amounts paid between the two payment methods.

Result:

There is **statistically significant evidence** that customers who use credit card to pay their fares have a **higher average fare paid amount** than customers who use cash to pay their fares.

Next Steps

Through this hypothesis test, the Automatidata team recommends that the TLC encourage people to pay their fares using credit card to generate more revenue for the TLC.

Recommendations include installing “Credit Card Payment Preferred” signs on taxi cabs and requiring cab drivers to encourage passengers to pay their fares using credit card.