

New York City TLC Project – Statistical Review

Executive Summary Report III

Commission Prepared by **Automatidata**

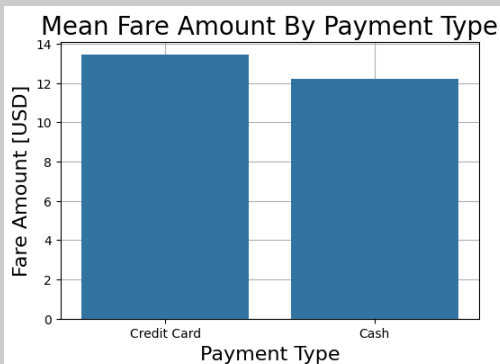
Project Overview

The objective is to forecast taxi cab fares prior to each ride, with a specific aim to identify strategies for increasing revenue for New York City taxi drivers. This segment of the project investigates the link between total fare amounts and payment methods. The focus of this analysis is to determine if customers paying with credit cards tend to have higher total fare amounts compared to those paying with cash.

Details

Key Insights

- The following research question was answered: “Is there a relationship between the total fare amount and the payment type?”.
- The A/B test revealed that promoting credit card payments could potentially boost revenue for taxi drivers.



Credit Card 13.429748

Cash 12.213546

- An A/B test was conducted to explore how credit card payments influence the total fare amount.
- The sample data was collected from a controlled experiment where customers were randomly divided into two groups: a) those who were required to pay using credit cards and b) those who were required to pay using cash. This setup allowed for conclusions about the effect of payment method on fare amounts.
- A two-sample t-test was performed to assess whether there is a statistically significant difference in average fare amounts between credit card and cash payments.
- The results showed a **statistically significant** difference in the average fare amounts between the two groups, with credit card users paying higher total fares than those using cash.

Next Steps

1. Encourage passengers to use credit cards, potentially through strategies like placing “Credit card payments are preferred” signs in cabs and training drivers to verbally promote credit card payments.
2. Conduct further t-tests on additional variables to gain deeper insights into user behavior.