Maximizing Revenue For Drivers

Through Payment Type

Agenda

- Problem Statement
- Research Question
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- Analysis and Findings
- Hypothesis Testing
- Recommendations

Problem Statement

In the fast-paced taxi booking sector, making the most of revenue is essential for long-term success and driver happiness.

Our goal is to use data-driven insights to maximize revenue streams for taxi drivers in order to meet this need. Our research aims to determine whether payment methods have an impact on fare pricing by focusing on the relationship between payment type and fare amount.

Research Question

Is there a relationship between total fare amount and payment type ?

Can we convince customers towards payment methods that generate higher revenue for drivers , without negatively impacting customer experience ?

Data Overview

- passenger_count
- payment_type
- fare_amount
- trip_distance
- duration

	passenger_count	payment_type	fare_amount	trip_distance	duration
0	1	card	6.0	1.20	4.800000
1	1	card	7.0	1.20	7.416667
2	1	card	6.0	0.60	6.183333
3	1	card	5.5	0.80	4.850000
5	1	cash	2.5	0.03	0.883333

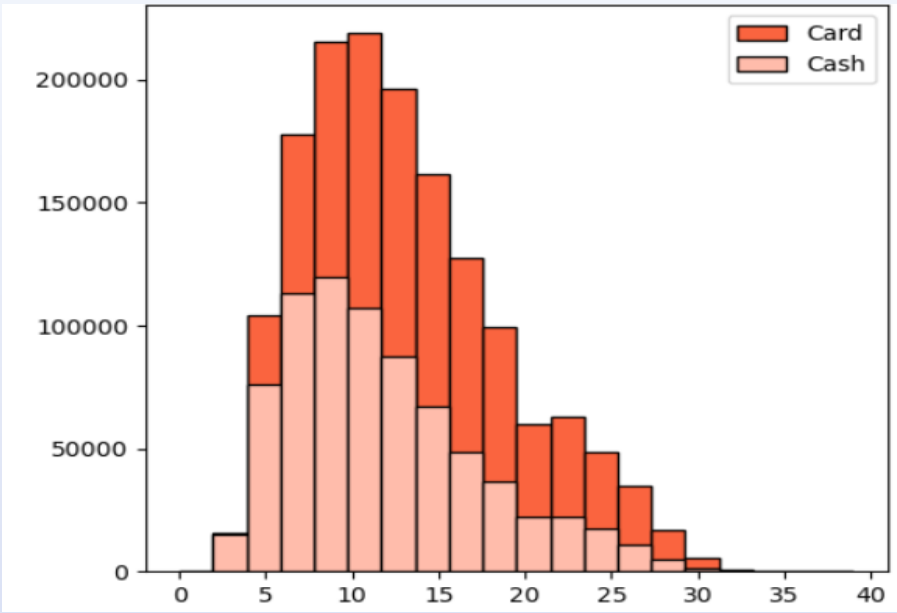
Methodology

Step	Description
Descriptive analysis	Perform statistical analysis to summarize key aspects of the data, focusing on fare amounts and payment types.
Hypothesis testing	Conducted a T - test to evaluate the relationship between payment type and fare amount, testing the hypothesis that different payment methods influence fare amounts.

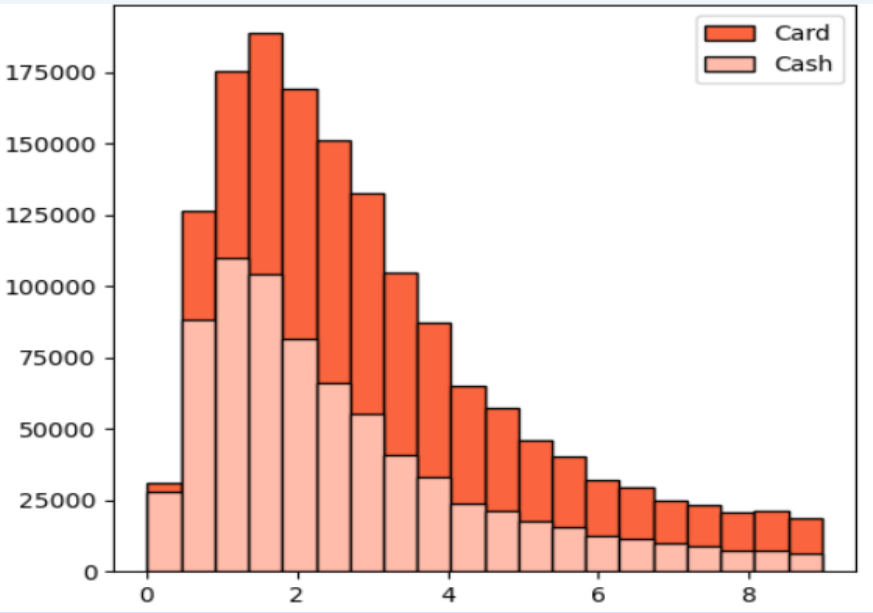
Key Insights

- Customers paying with cards tend to have a slightly higher average trip distance and fare amount compared to those paying with cash.

Fare Amount



Trip Distance



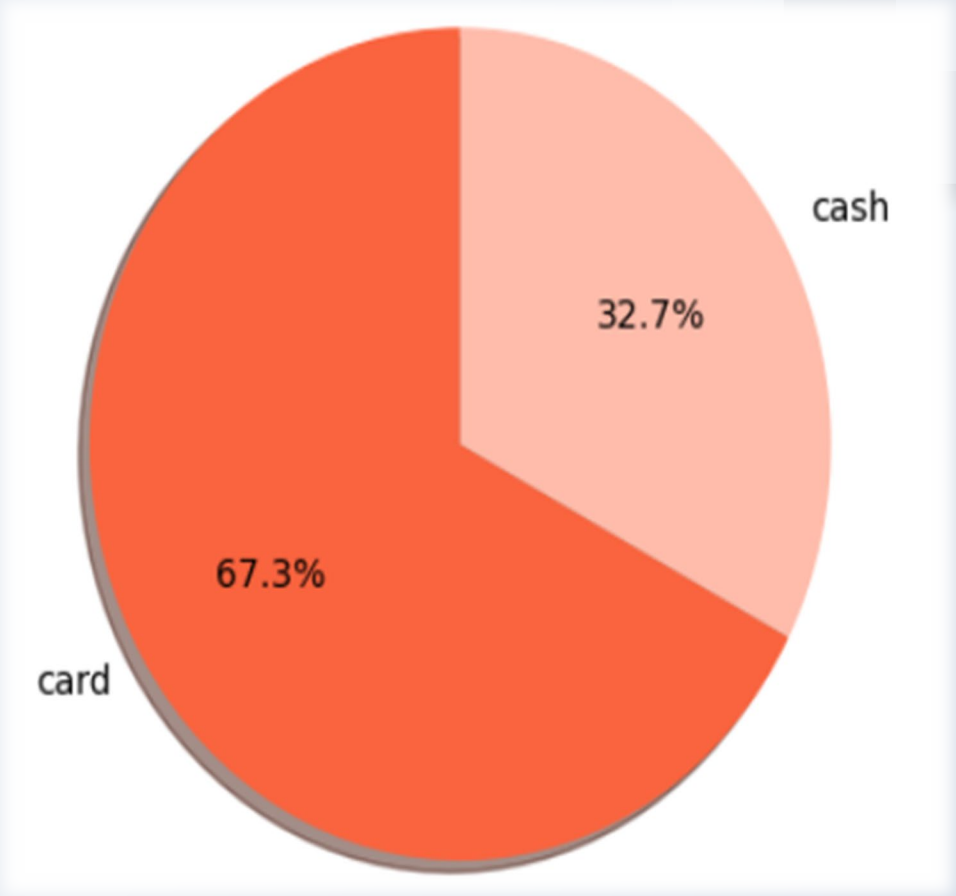
Insight

The data indicates that customers prefer to pay more with cards when they have high fare amount and long trip distance.

	Payment Type	Mean	Standard Deviation
Fare Amount	Card	13.1	5.84
	Cash	11.75	5.61
Trip distance	Card	2.99	1.99
	Cash	2.60	1.91

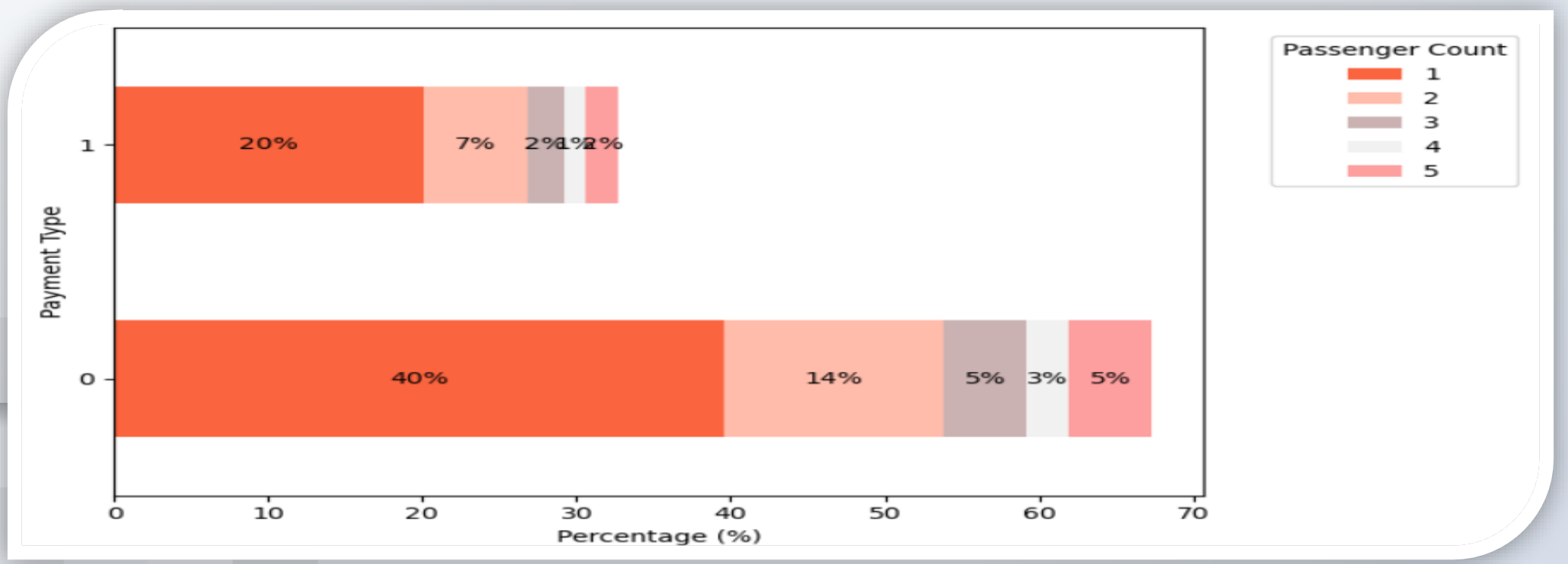
Preference Of Payment Types

- The proportion of customers paying with cards is significantly higher than those paying with cash, with cards payments accounting for 67.5% of all transactions compared to cash payments at 32.5%.
- This indicates a strong preference among customers for using card payments over cash, potentially due to convenience, security or incentives offered for card transactions.



Passenger Count Analysis

- Among card payments raids with a single passenger(passenger_count =1) comprise the largest proportion , constituting 40.08% of all card transactions.
- Similarly, cash payments are predominantly associated with single passenger rides, making up 20.04% of all cash transactions.
- There is a noticeable decrease in the percentage of transactions as the passenger count increases, suggesting the large groups are less likely to use taxis or may opt for alternative payment methods.
- These insights emphasize the importance of considering both payment method and passenger ground when analyzing transaction data, as they provide valuable insights into customer behavior and preferences.



Hypothesis Testing

Null hypothesis – There is a difference in average fare between customers who use credit cards and customers who use cash.

Alternative hypothesis - There is a difference in average fare between Customers who use credit cards and customers who use cash.

With a T – statistic of 165.5 and a P- value of less than 0.05 , we reject the null hypothesis, suggesting that there is indeed a significant difference in average fare between the two payment methods.

Recommendations

Encourage customers to pay with credit cards to capitalize on the potential for generating more revenue for taxi cab drivers.

Implement strategies such as offering incentives or discounts for credit cards transactions to incentivize customers to choose this payment method.

Provide seamless and secure credit card payment option to enhance customer convenience and encourage adaption of this preferred payment method.

Thank You