

MAXIMIZING REVENUE OF DRIVERS

THROUGH PAYMENT TYPE



AGENDA

- Problem statement
- Research question
- Data overview
- methodology
- 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 any relationship between total fare amount and payment type?

can we nudge customers towards payment methods that generate higher revenue for drivers , without negatively impacting customer experience .?

DATA OVERVIEW

For the analysis we utilized the comprehensive dataset of NYC taxi trip records used data cleaning and feature engineering procedures to concentrate solely on the relevant columns essential for our investigation

Relevant column for investigation

- Passenger_count(1-5)
- Payment_type(card or cash)
- Fare_amount
- Trip_distance(miles)
- Duration(minutes)

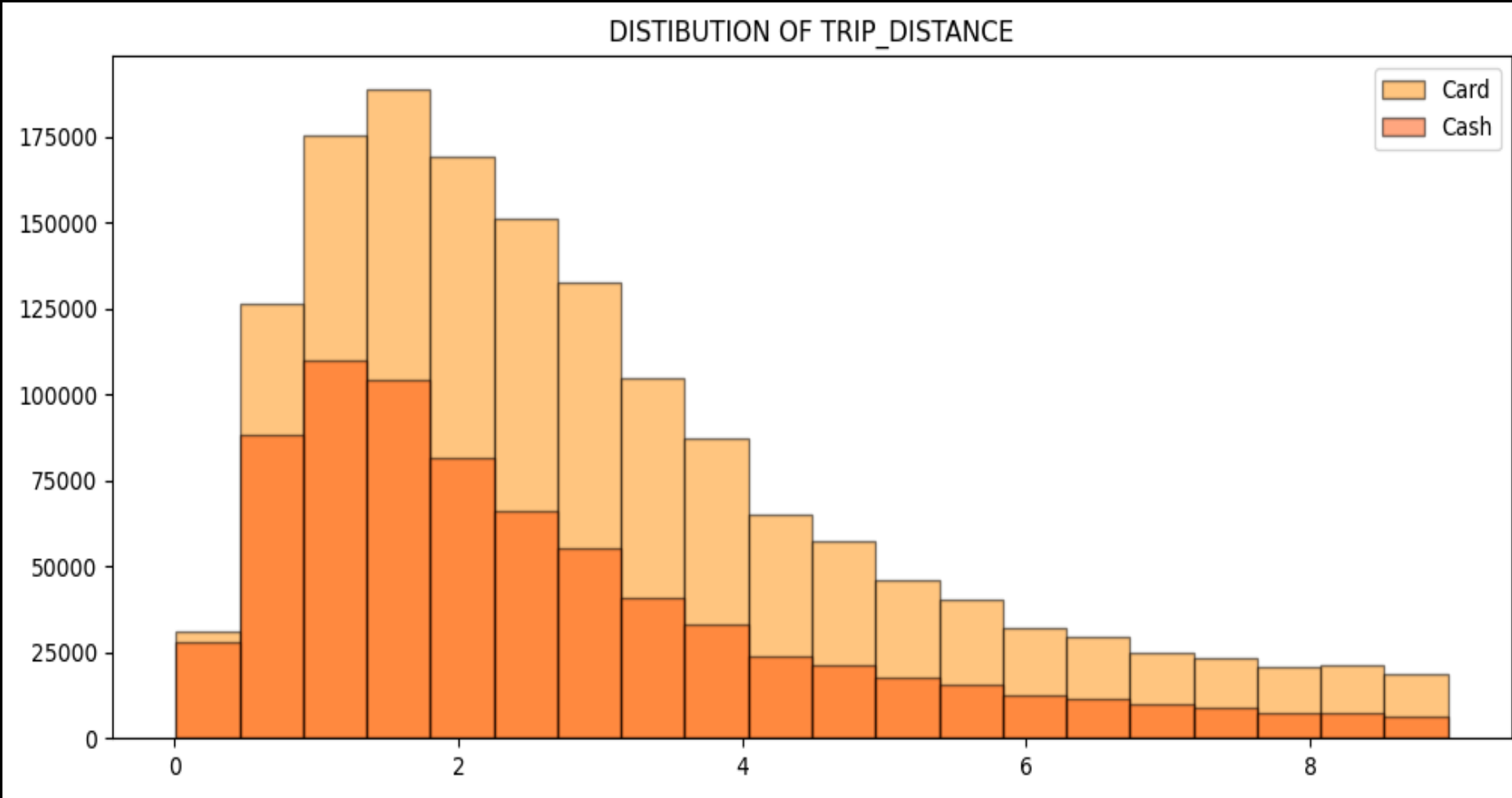
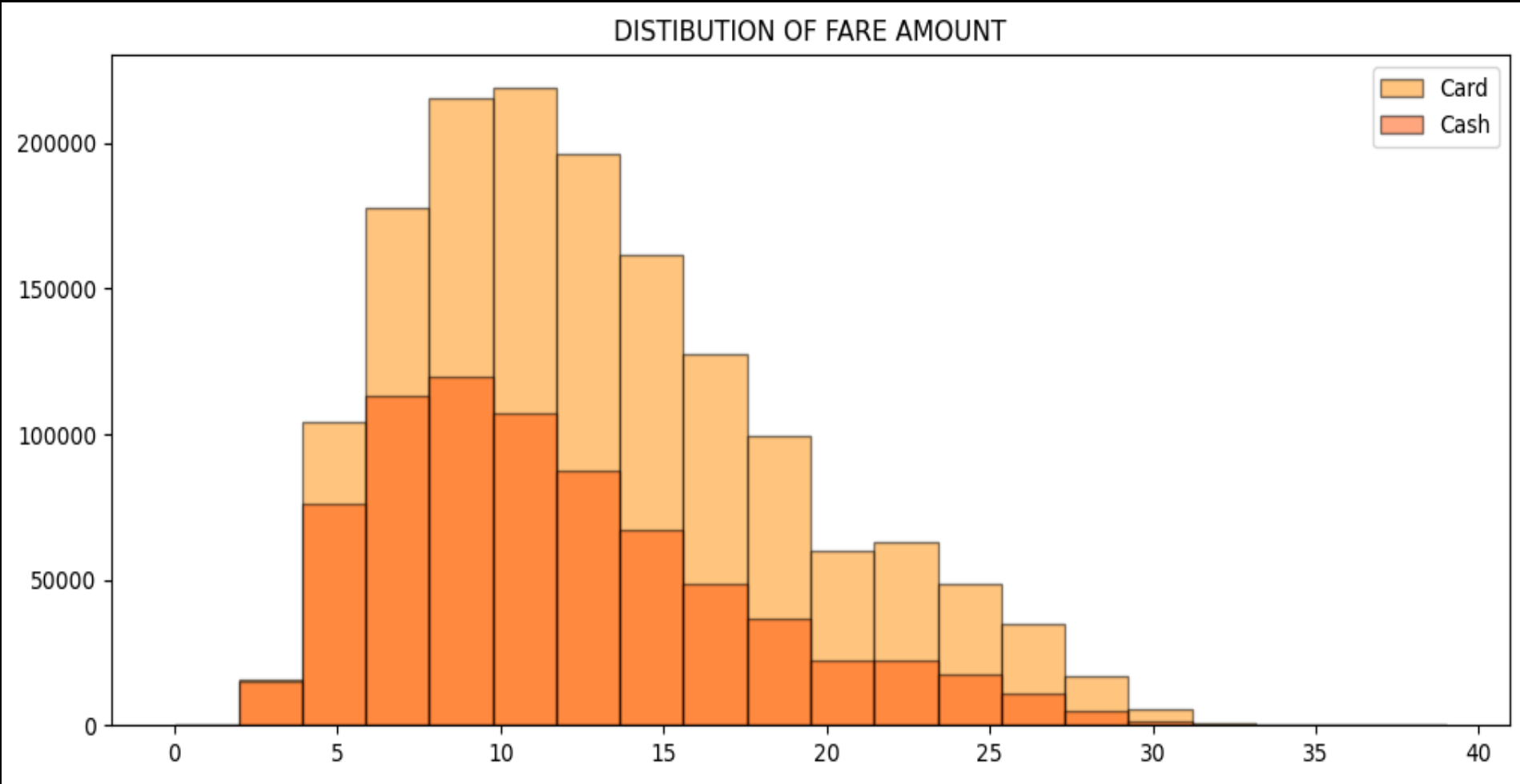
Passenger_count	Trip_distance	Payment_type	Fare_amount	duration
1	1.20	Card	6.0	4.800
1	1.20	Card	7.0	7.416
1	0.60	Card	6.0	6.183
1	0.80	Card	5.5	4.850
1	0.03	cash	2.5	0.883

METHODOLOGY

STEP	DESCRIPTION
Descriptive analysis	Performed statistics 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 method influence fare amounts.

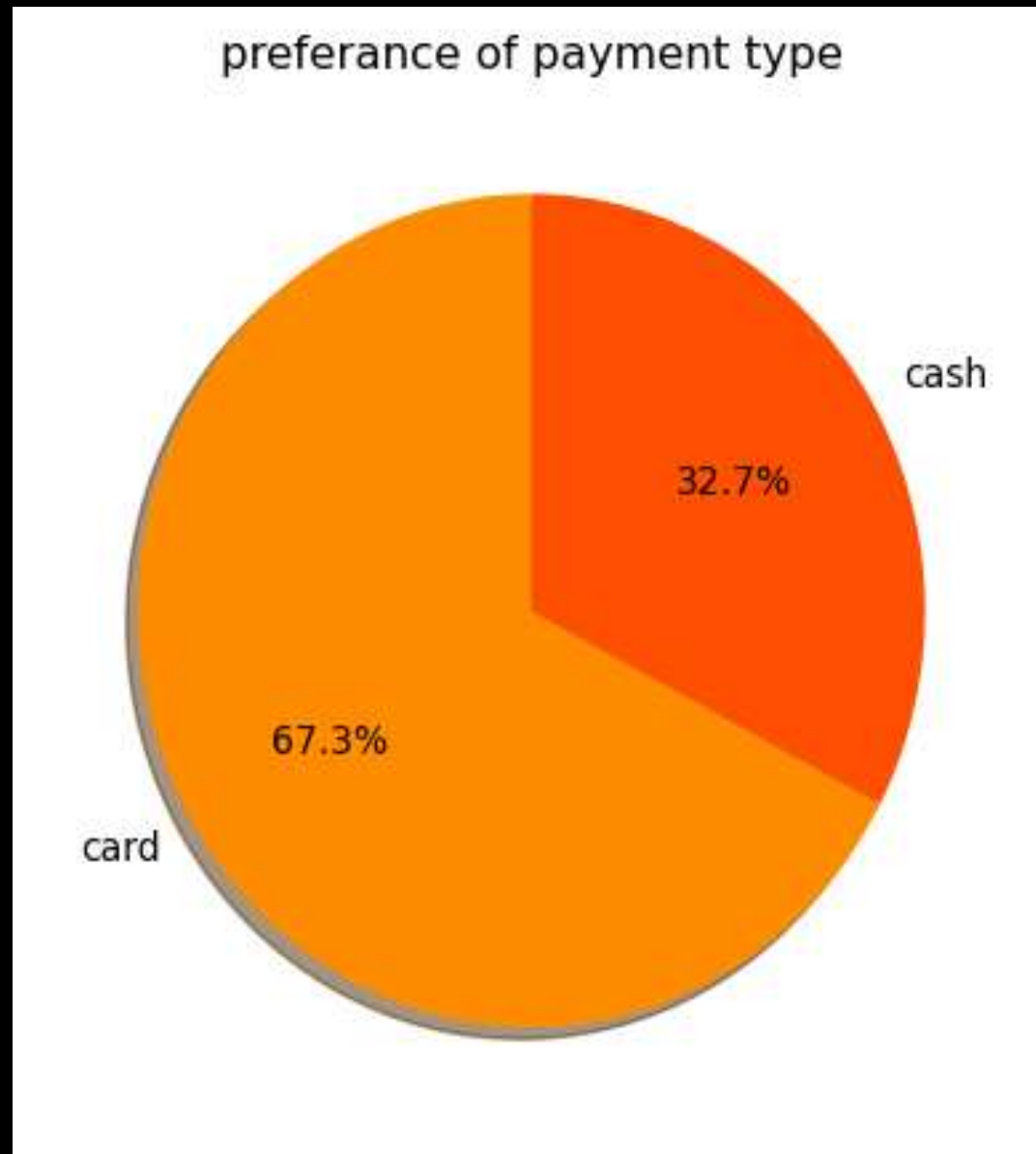
JOURNEY INSIGHTS

- Customers paying with cards tend to have a slightly higher average trip distance and fare amount compared to those with cash
- 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	13.7	6.5
	cash	12.25	6.2
Trip distance	card	3.23	2.32
	cash	2.8	2.23

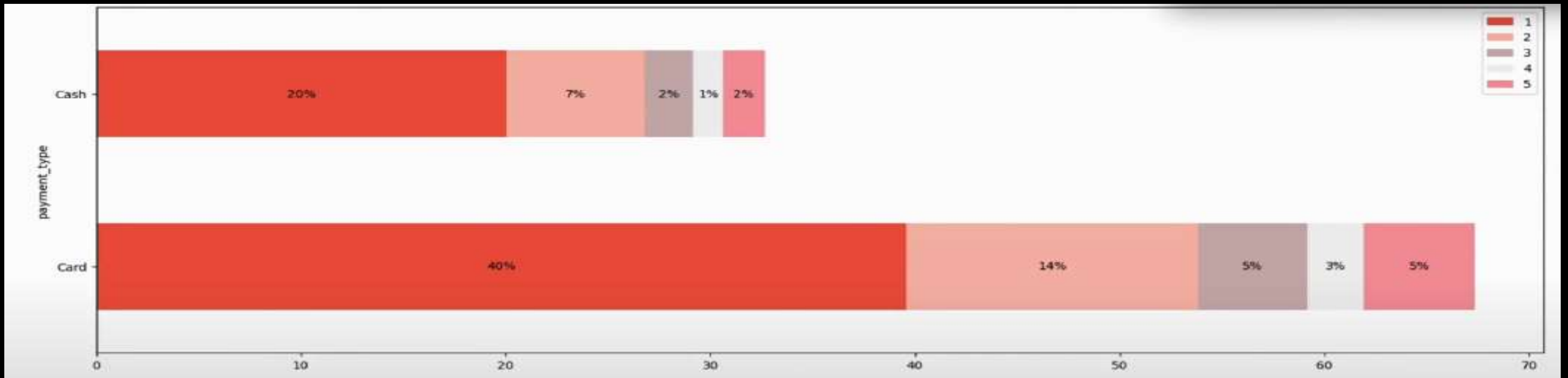
PREPHARENCE OF PAYMENT TYPES



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

PASSENGER COUNT ANALYSIS

- Among card payments rides 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 transaction
- There is a noticeable decrease in the percentage of transaction as the passenger count increases, suggesting that larger group are less likely to use taxis or may opt alternative payments methods.
- These insights emphasize the importance of considering both payments method and passenger count when analyzing transaction data as they provided valuable insights into customer behavior and preferences.



HYPOTHESIS TESTING

NULL HYPOTHESIS : there is no 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 customer who use cash.

With a t-statistics of 165.5 and 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 payments methods.

RECOMMENDATION



Encourages customers to pay with credit card to capitalize on the potential for generating more tax.



Implement strategies such as offering incentives or discounts for credit card transaction to Choose incentivize customer to choose this payment method



Provide seamless and secure credit payments option to enhance customer convenience and Encourage adoption of this proffered payment method.

THANK YOU!
