Public Transport

Transjakarta

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Background



Data Driven



Customer Behaviour



AUDIENCE

Management of Transjakarta

Main Problems

Key Factors to Analyze

Travel Route Analysis

Demographic Analysis





Service



Dataset

Summary

In total, 33.779 Rows & 29 columns of customer demographic

Dropped 2379 Rows of Missing Values & 1742 Rows of Outliers

01

03

.......

Generate 7 new columns for further analysis

KEY SUMMARY

Demographic Analysis



Productive Age (20-40)

This shows that the productive age, which may consist of workers and students, are the main users of Transjakarta services.

Travel Route Analysis



Peak Times (7-9 a.m & 5-7 p.m)

There are peak times where the number of passengers tapping in and out is very high, usually during the hours of leaving and returning from work

User Satisfaction



Bank DKI

The payment methods used by Transjakarta passengers are quite varied, with several banks dominating transactions, but the most dominant bank is Bank DKI.

Service

Optimization



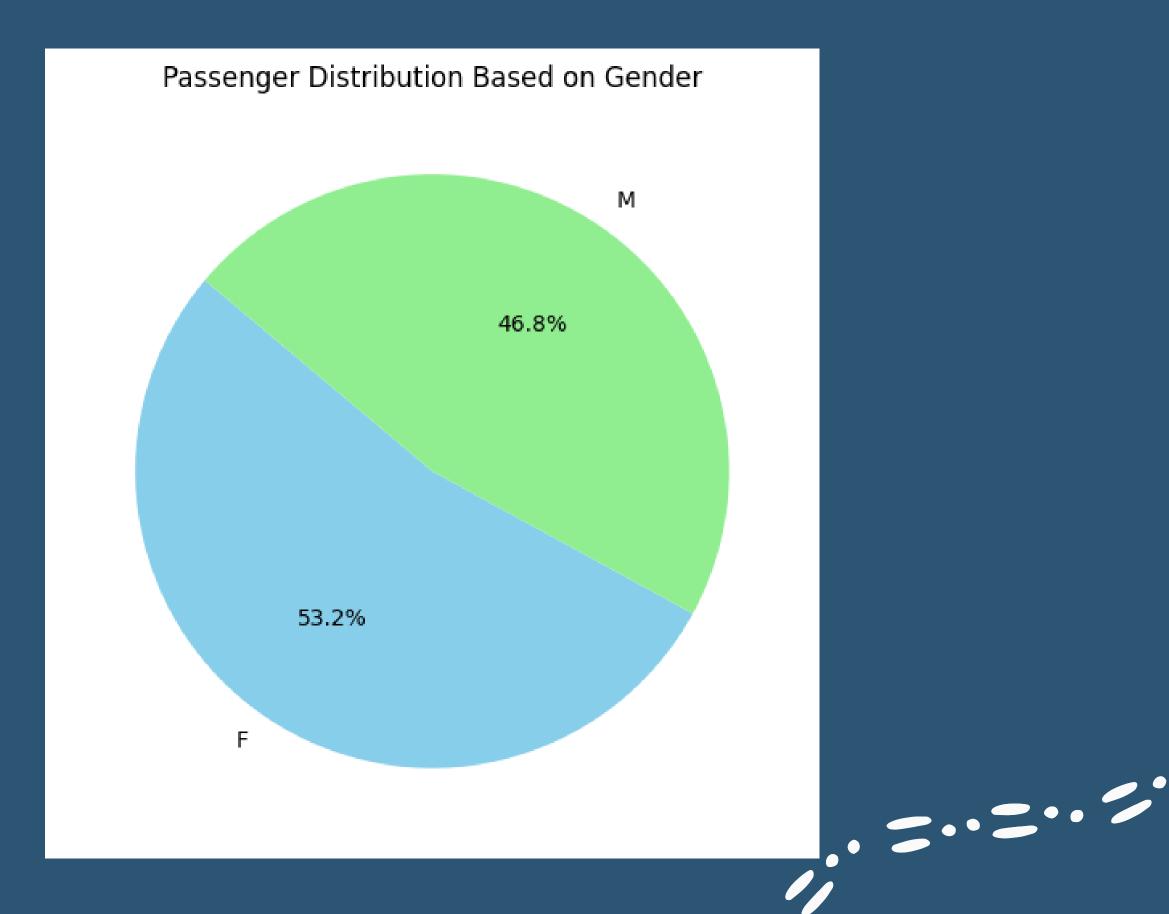
Office & Shopping centers

Corridors with the most passengers are likely to be the main routes connecting densely populated areas with activity centers such as offices and shopping centers.

Analysis

Demographic Analysis

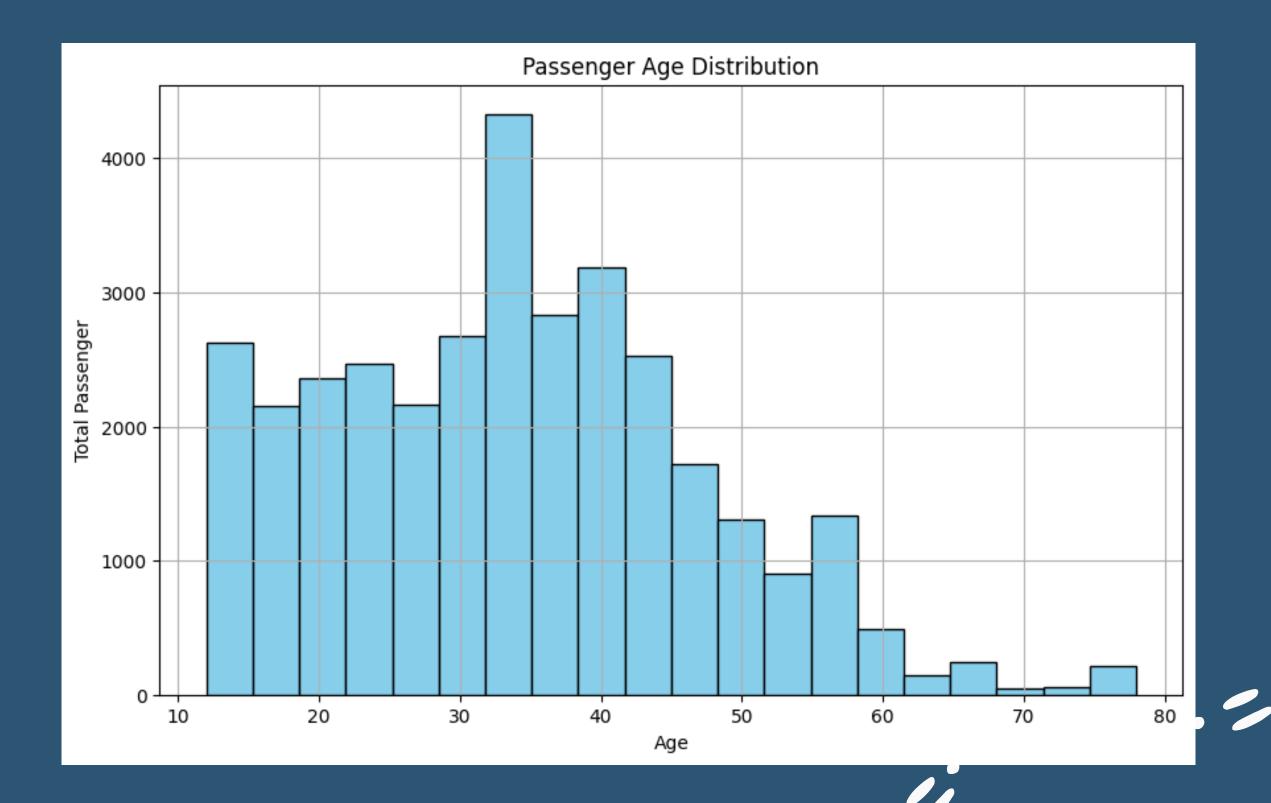
The majority of Transjakarta passengers are women 53,2%.



Demographic Analysis

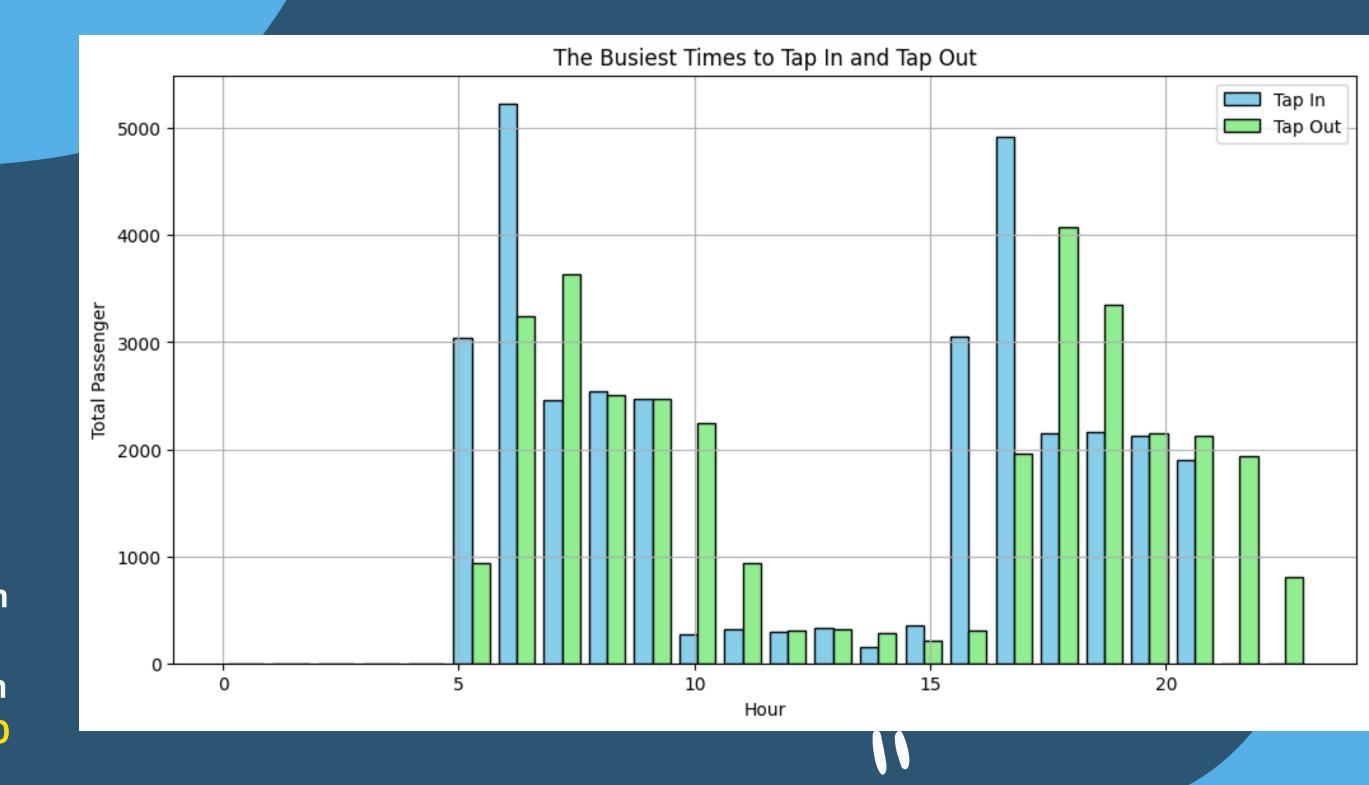
Most of the passengers are in the age range of 20 to 40 years,

This shows that the productive age, which may consist of workers and students, are the main users of Transjakarta services.



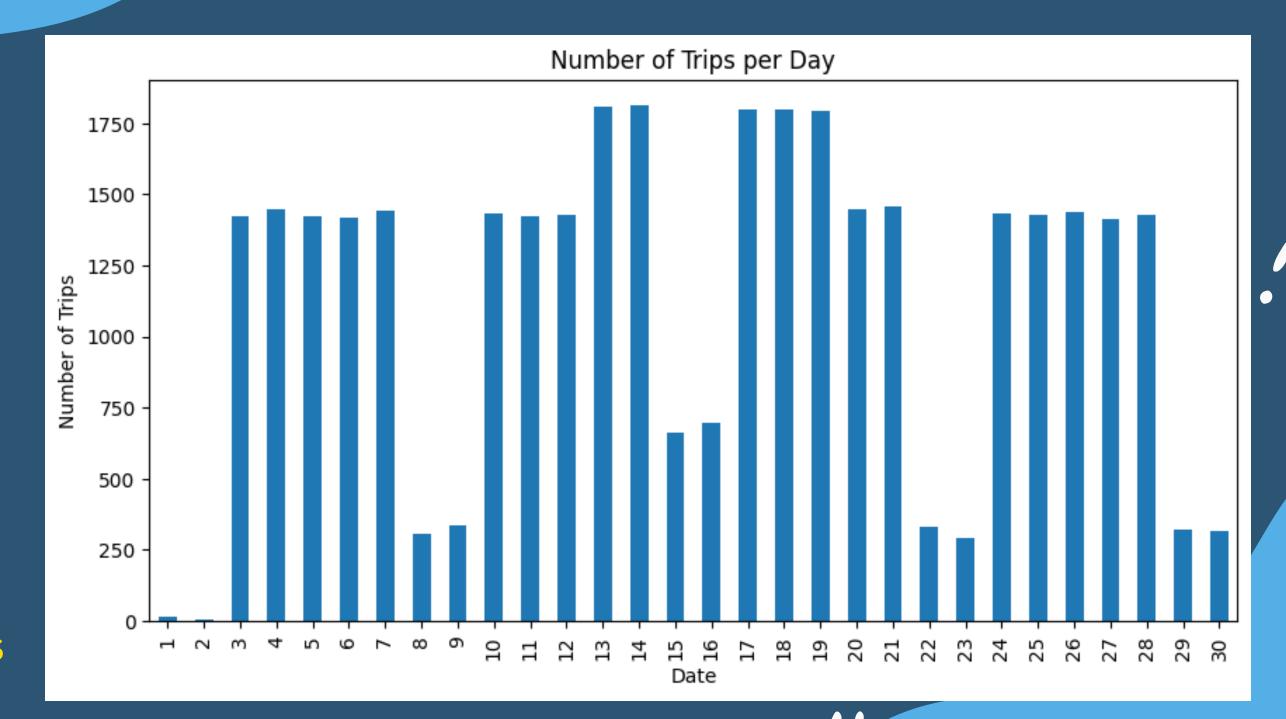
Travel Route Analysis

There are peak times when the number of passengers tapping in and out is very high, usually during the commute to and from work hours (around 07:00-09:00 and 17:00-19:00).



Travel Route Analysis

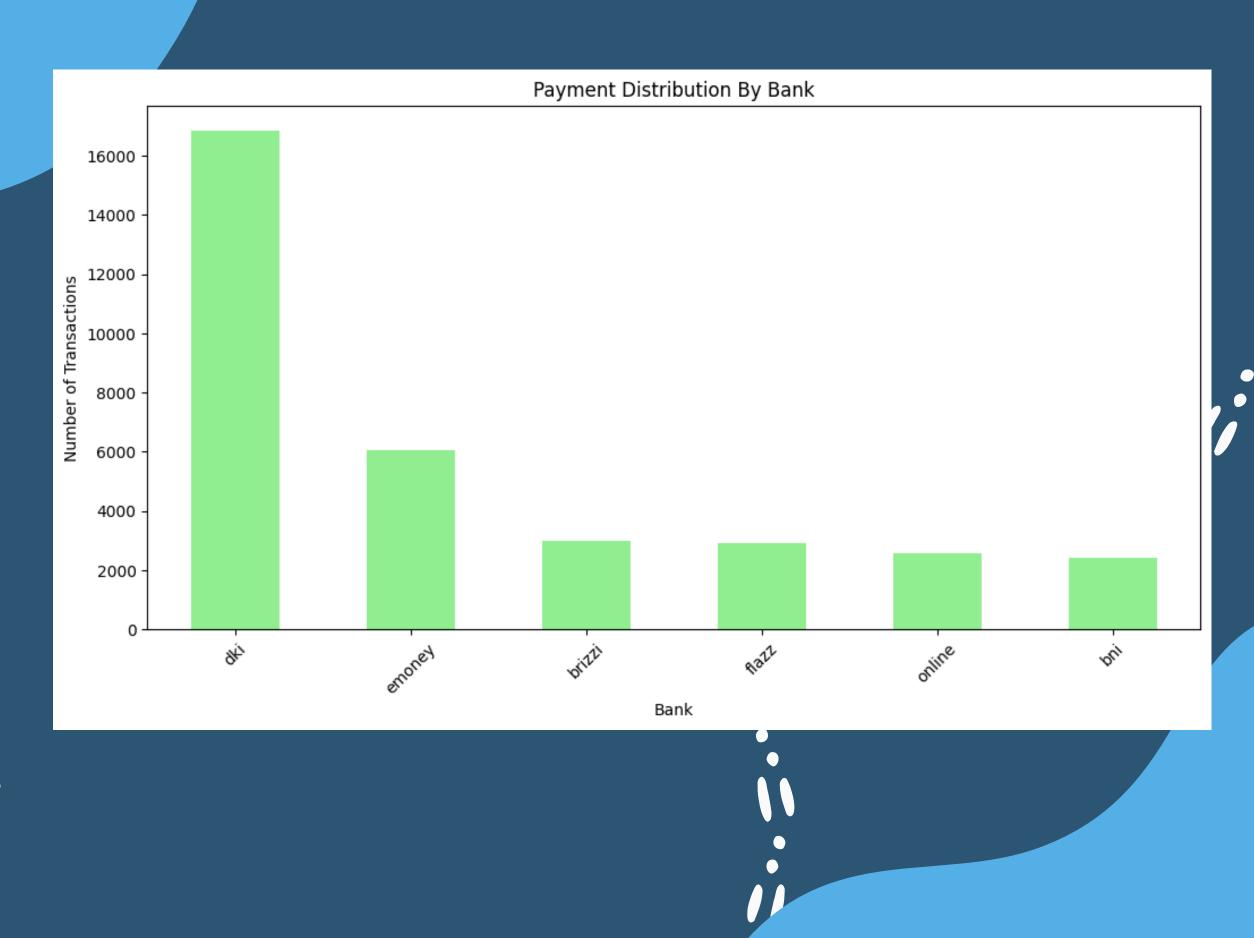
Based on the graph, the data shows that the highest use of Transjakarta is on weekdays, and decreases on weekend.



User Satisfaction

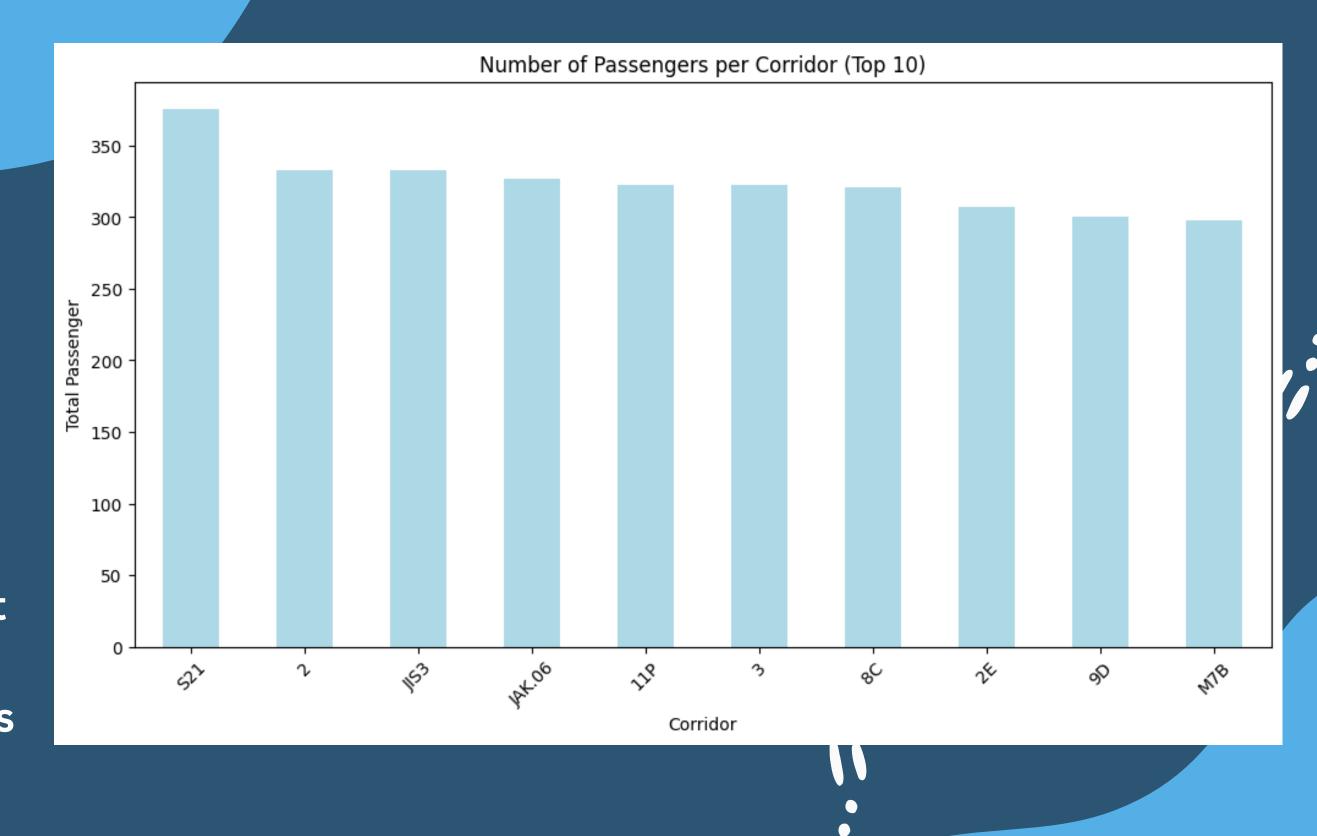
o The highest number of transactions, around 16,000 transactions.

o Bank DKI dominates payment transactions, indicating that cards issued by Bank DKI are the most widely used by Transjakarta passengers.



Service Optimization

Corridor S21 has the highest number of passengers compared to other corridors on this list, with more than 350 passengers.



Conclusion

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Most passengers are in the 20-40 age range, indicating that Transjakarta is widely used by productive age groups.

Bank DKI dominates
payment transactions
with a very high
number of
transactions compared
to other banks.

There is a fluctuation in the number of trips per day in a month, with a peak in the middle of the month and a significant decrease on certain days (Weekend)

High ridership corridors such as S21 may require larger bus fleets or increased trip frequencies to accommodate high passenger demand.

Reccomendation

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Provide services that suit the needs of this age group, such as Wi-Fi facilities to support work and entertainment during the trip.

Hold special promotions with other banks to increase the use of cards from these banks and diversify payment methods.

Management can optimize operations by adding fleets on peak days and running promotions on days with low number of trips.

Increase Bus Fleet on
Busy Corridors: Increase
the number of buses on
high-ridership corridors,
especially during peak
hours, to reduce wait
times and congestion.

Thank You

<u>Github</u>

<u>Tableau</u>