

# Characterizing Public Transport Terminals near Shopping Malls in Metro Manila

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# Metro Manila



# Background

- Shopping Malls: considered one of the centers of commuting in Metro Manila
- Less space is utilized for transport terminals due to the continuing urbanization of Metro Manila



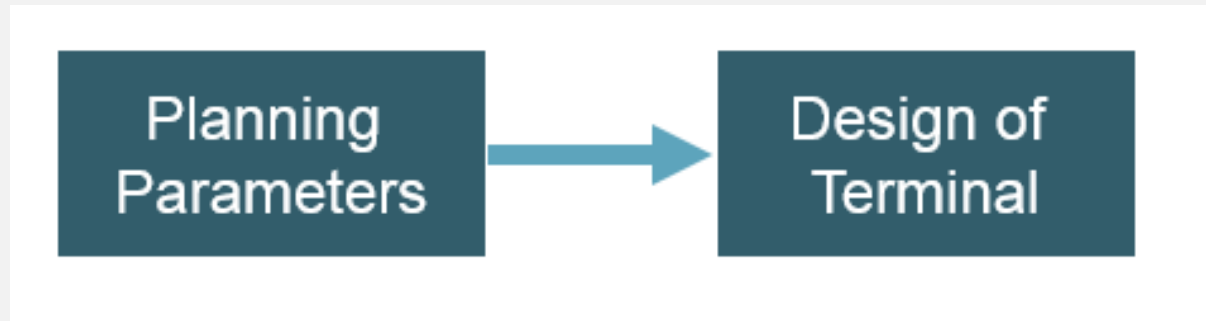
# Main Objective

-To develop Planning Parameters for public transportation terminal design in shopping malls in Metro Manila



# Significance of the Study

- The identification of planning parameters will help designers or planners to formulate effective designs of public transportation terminals

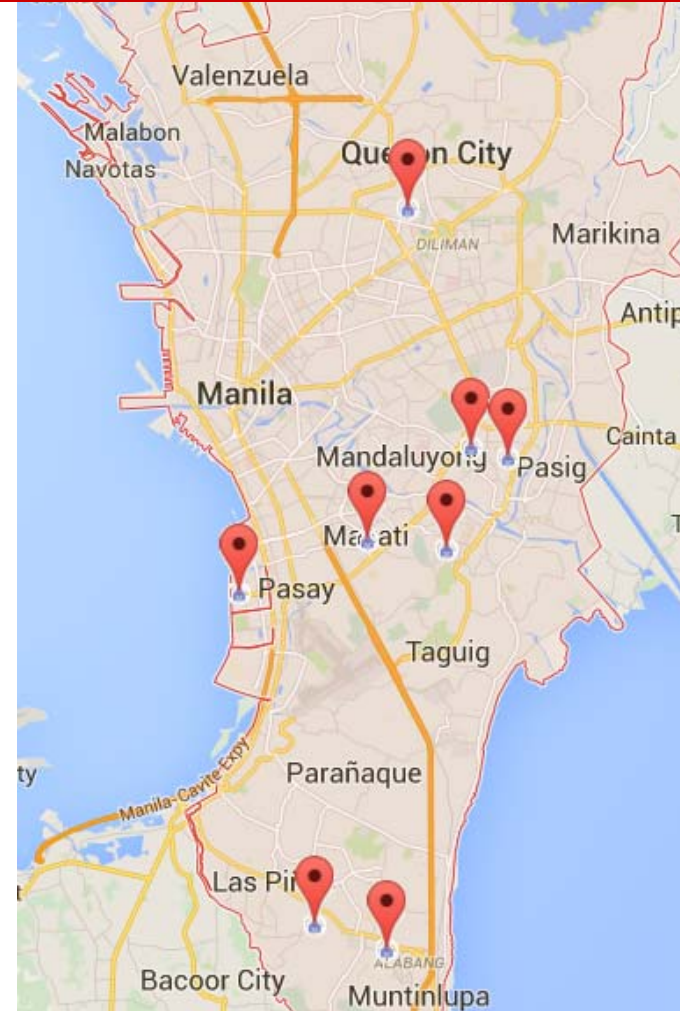




# Scope

## 7 Shopping malls in Metro Manila

- Alabang Town Center
- Glorietta (ECB)
- SM Southmall
- SM North EDSA
- Mall of Asia
- Market! Market
- SM Megamall



# Scope: PUVs

## Jeepneys

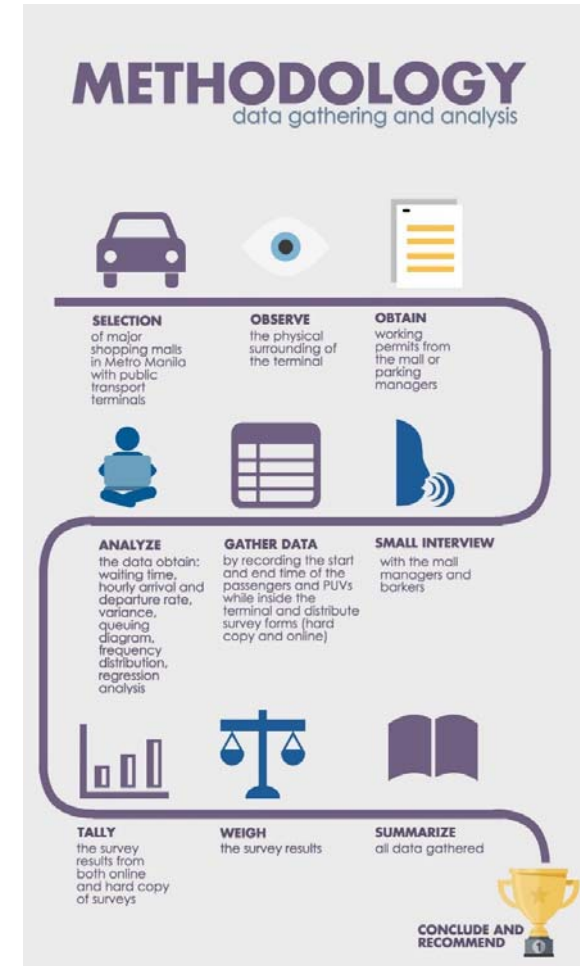


## FX



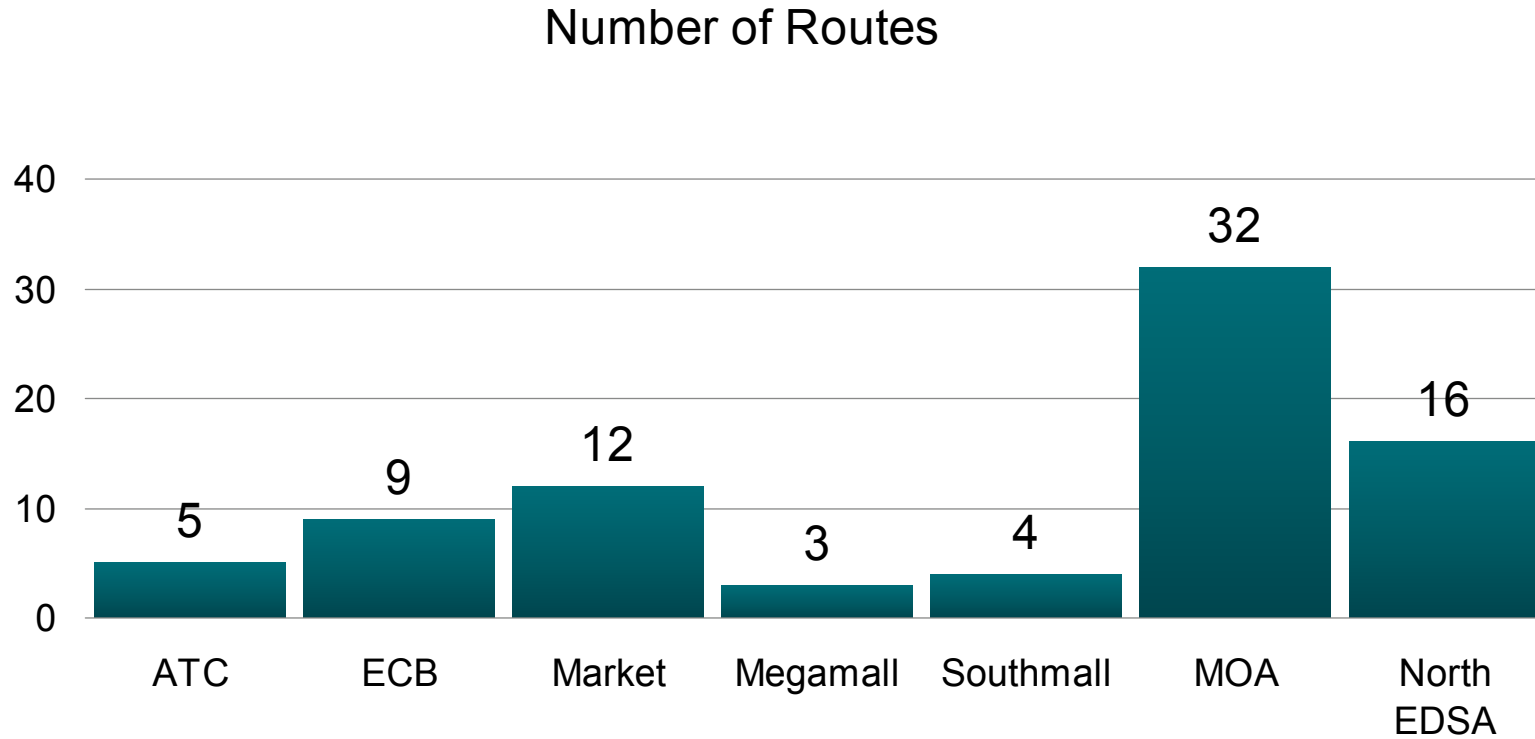
# Methodology

- Physical aspects of the terminal  
(e.g. Routes, Terminal Area, PUV slots)
- Waiting times of passengers and PUVs
- Satisfaction Survey
- Regression Analysis



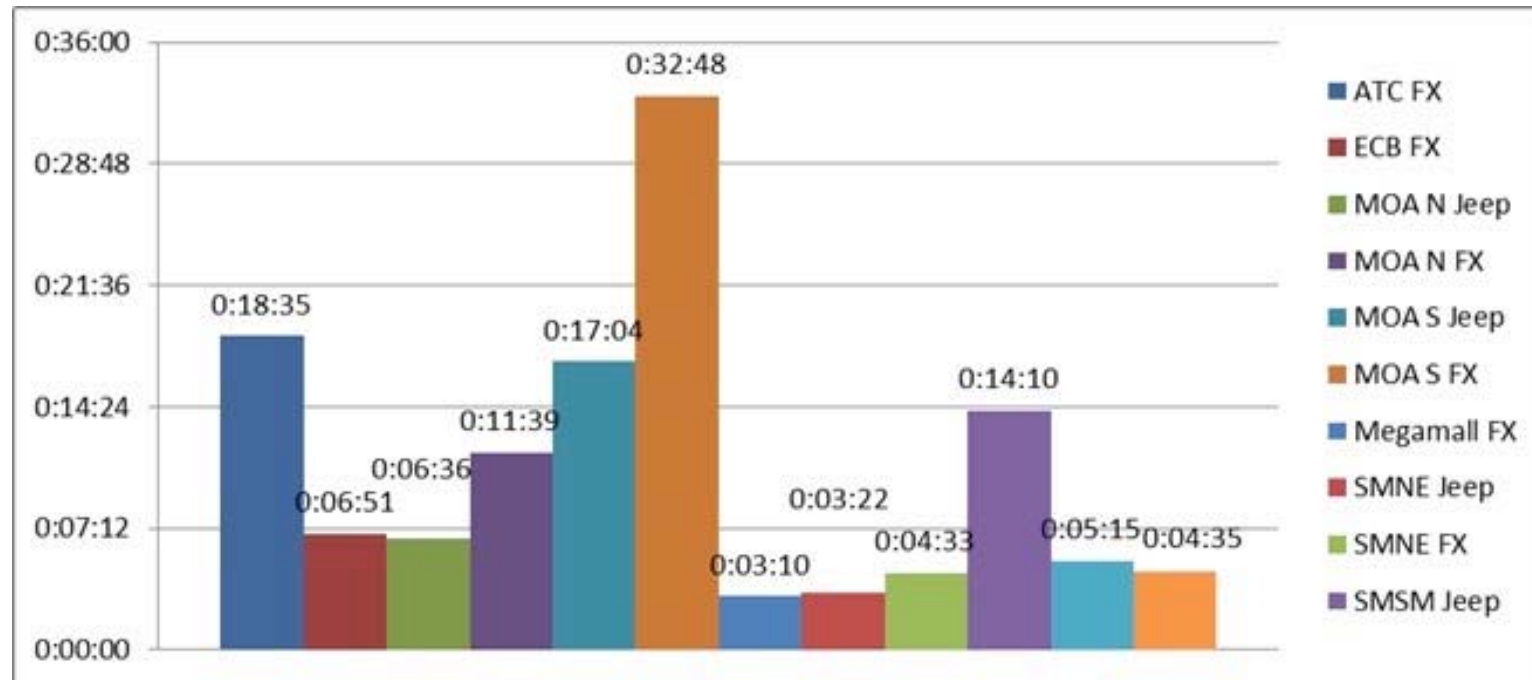


# Data Analysis



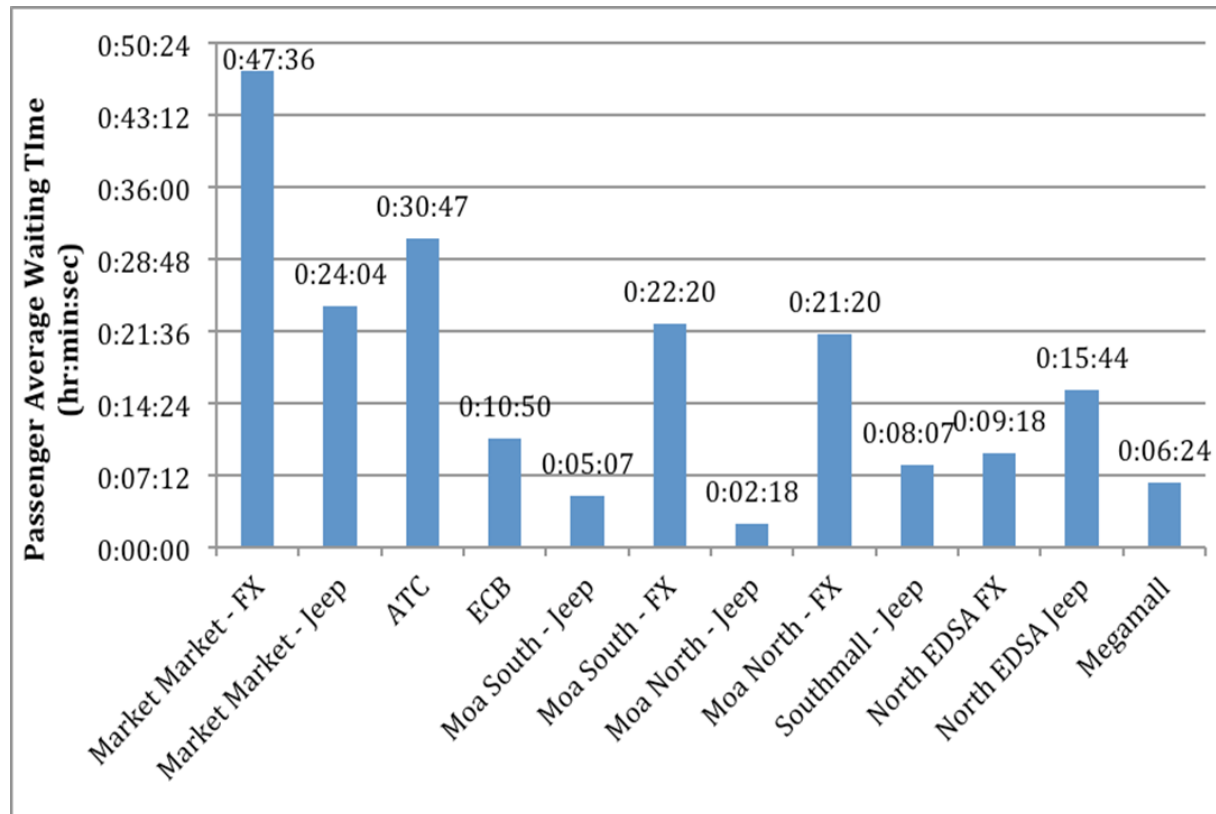
# Data Analysis

## Average Vehicle Waiting Time (h:mm:ss)



# Data Analysis

## Average Passenger Waiting Time (h:mm:ss)



# Data Analysis

## Regression Statistics

<b>R</b>	<b>0.98833</b>
<b>R<sup>2</sup></b>	<b>0.97681</b>
<b>Adjusted R<sup>2</sup></b>	<b>0.97165</b>
<b>S</b>	<b>214.28969</b>
<b>Total Number of Observations</b>	<b>12</b>
<b>Terminal Area =- 1195.4693 + 388.8658 * Routes + 108.1299 * PUV Slot</b>	



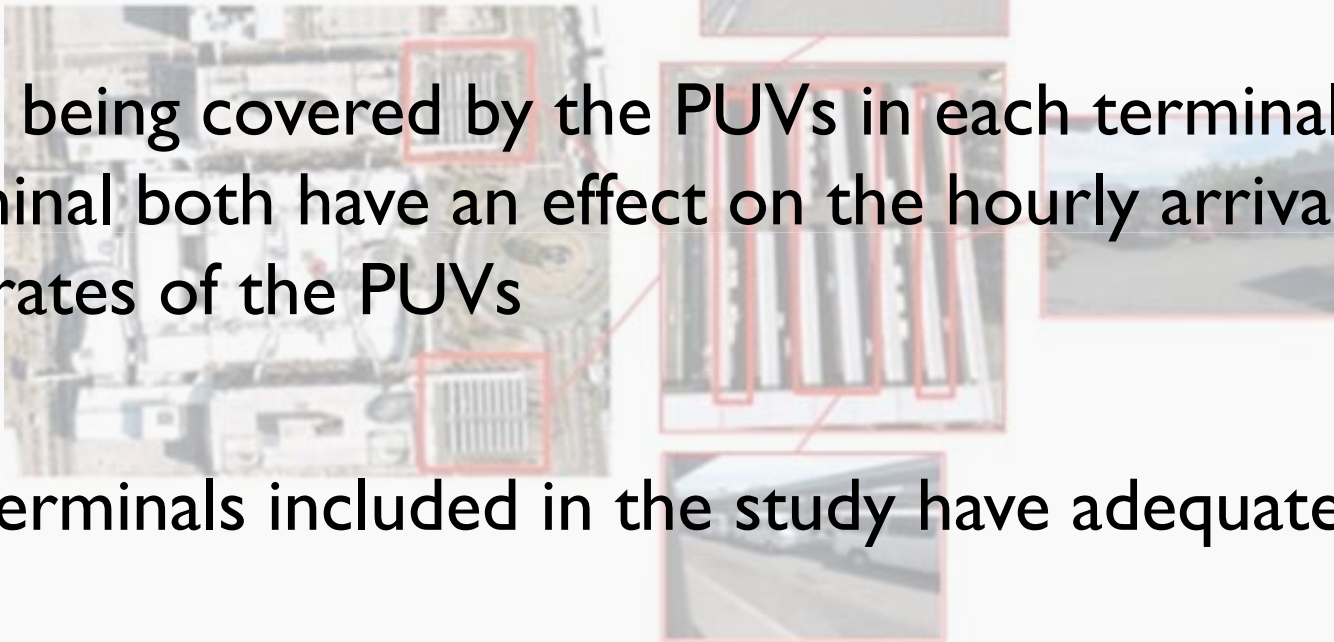
# Data Analysis

## Revised Regression Statistics

$R^2$	0.9897
Adjusted $R^2$	0.9837
S	162.243911
Terminal Area = -1603.7 + 397.05*Routes + 86.20*PUV Slot + 0.0008212*MxWait + 1.6897*Passenger	

# Conclusion

- The number of routes and PUV slots in the terminal are the most relevant factors that affect the terminal area
- The routes being covered by the PUVs in each terminal and location of the terminal both have an effect on the hourly arrival and departure rates of the PUVs
- All of the terminals included in the study have adequate lighting and security



# Recommendations

- Consider all routes for each transport terminal in data gathering
- Compare the terminal's activity for both weekdays and weekends
- Include importance ratings in the satisfaction survey
- After further study- specific guidelines for terminal design can be implemented

