



QUADRANT

**BETTER DATA, BETTER DECISIONS, BETTER OUTCOMES:**  
MAKE RIGHT DECISIONS WITH THE RIGHT DATA



# **WELCOME TO QUADRANT'S COMMUNITY MEETUP**

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Every day, millions of people create tiny data points about the ways in which they interact with and traverse the physical world. This data is made available where businesses use them for it's organizational purpose.

With high quality data, businesses are able to improve their service, understands its' consumers, conduct promotional activities and many more.

# AGENDA

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**6.30pm – 6.45pm: Registration**

**6.45pm – 6.50pm: Welcome Remarks**

*by Navas Khan | Head of Marketing, Quadrant*

**6.50pm – 7.20pm: Making Right Decisions with The Right Data**

*by Glenn Harrison | Senior Data Consultant, Quadrant  
and Roger Ganga | Data Scientist, Quadrant*

**7.20pm – 7.30pm: Open Mic Session, Audience Engagement**

**7.30pm – 9.00pm: Networking and End of Event**

# SPEAKERS

## Glenn Harrison

Senior Data Consultant, Quadrant

I've been working in the data-driven marketing industry for over 20 years helping businesses enhance their data-driven strategies and marketing campaigns. Prior to joining Quadrant I spent the past six years at Conexum, a privately-owned Australian data management company, as a Senior Sales Consultant.

I was responsible for developing and executing the data content (acquisition) strategy for the business in accordance with the product roadmap and market demand, ensuring it was in line with the organisation's aggressive goals.



## Roger Ganga

Data Scientist | Solidity Engineer, Quadrant

I currently lead data science and machine learning initiatives at Quadrant, a blockchain-based platform for data verification and mapping. In this role I bring new data science and machine learning opportunities to the company, working with AI partnerships.

I'm also member of the core development team and am involved in building the Quadrant blockchain, reviewing Android SDK development, and checking data quality.





## **MAKING RIGHT DECISIONS WITH THE RIGHT DATA**

For businesses, location data is the key to success. In the desert there is a saying: water is life. For many enterprise businesses, the saying should be that data is life. Data is essential to helping organizations identify the habits, needs, and wants of their customers and potential customers.



# INDUSTRY INSIGHTS

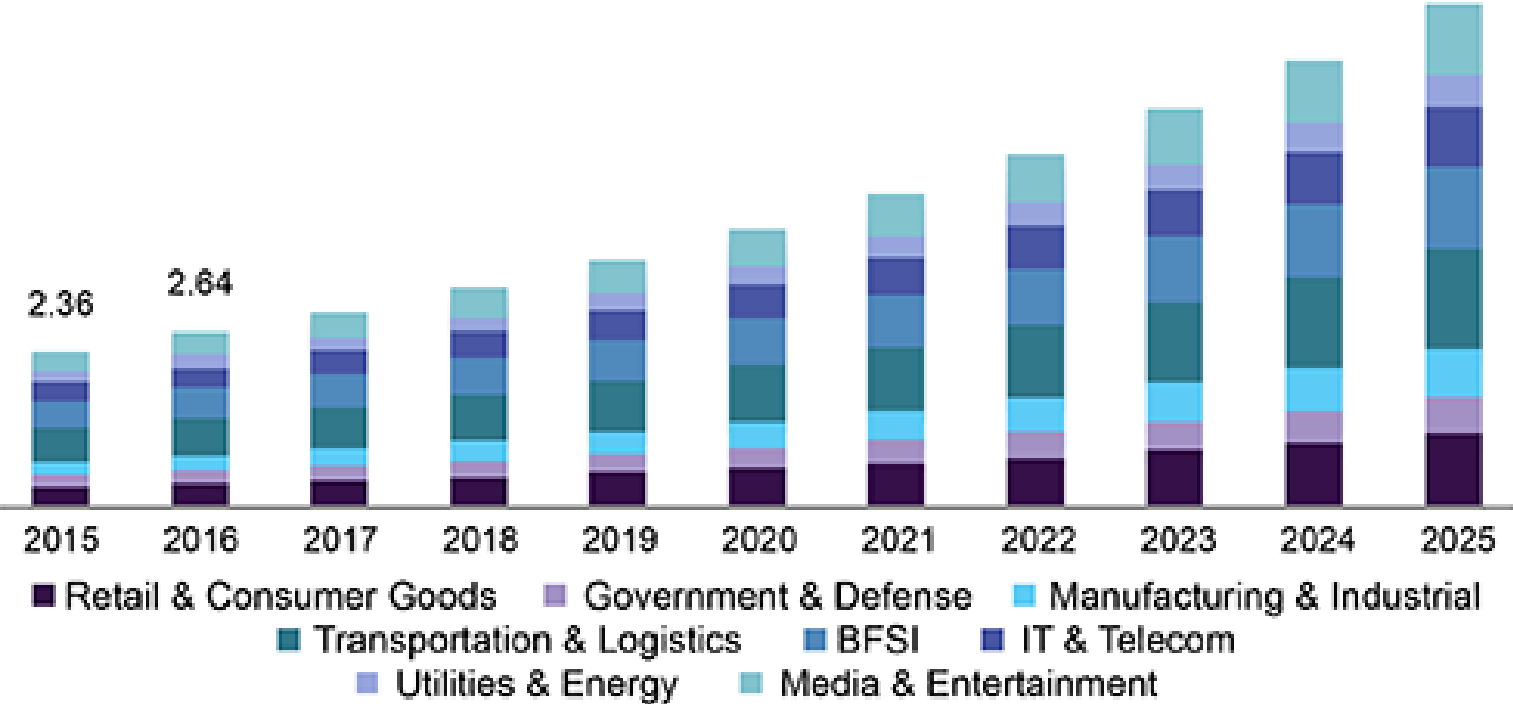


Source: Geospatialworld

THE POWER OF  
**‘WHERE’**  
IS THE NEXT  
INDUSTRIAL  
REVOLUTION

# INDUSTRY INSIGHTS

North America location intelligence market size, by application, 2015 - 2025 (USD Billion)



LOCATION  
INTELLIGENCE  
MARKET SIZE  
WORTH  
\$32 BILLION  
BY 2025

Source: Grand View Research

# MOBILE LOCATION DATA IN RETAIL

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**INDUSTRY USE**



**ENTERPRISE  
SOLUTIONS**

**CONSUMER  
SOLUTIONS**

# MOBILE LOCATION DATA IN RETAIL

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PAVILION  
KUALA LUMPUR

BUSINESS CHALLENGE

**INCREASE  
FREQUENCY OF  
VISITATION**



# METHODOLOGY

## STEP ONE



**Define**  
the catchment  
area

## STEP TWO



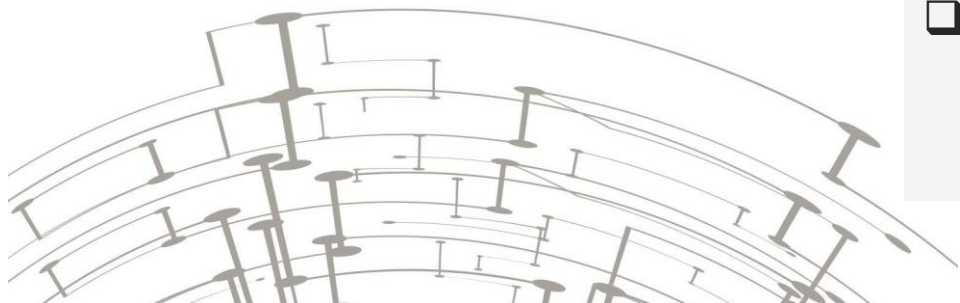
**Prepare dataset**  
based on the  
following criteria

- ☐ One month period length
- ☐ Nationalities (Local Citizens only)
- ☐ Preference given to users with multiple visits (>1 visits per month)

## STEP THREE



**Analyse the**  
proportion of  
visitors based on the  
catchment area



# MOBILE LOCATION DATA IN RETAIL

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# DATA QUALITY – SIMPLE 6 STEP PROCESS



## DEFINE DATA REQUIREMENTS

Define data requirements for business goals achievements

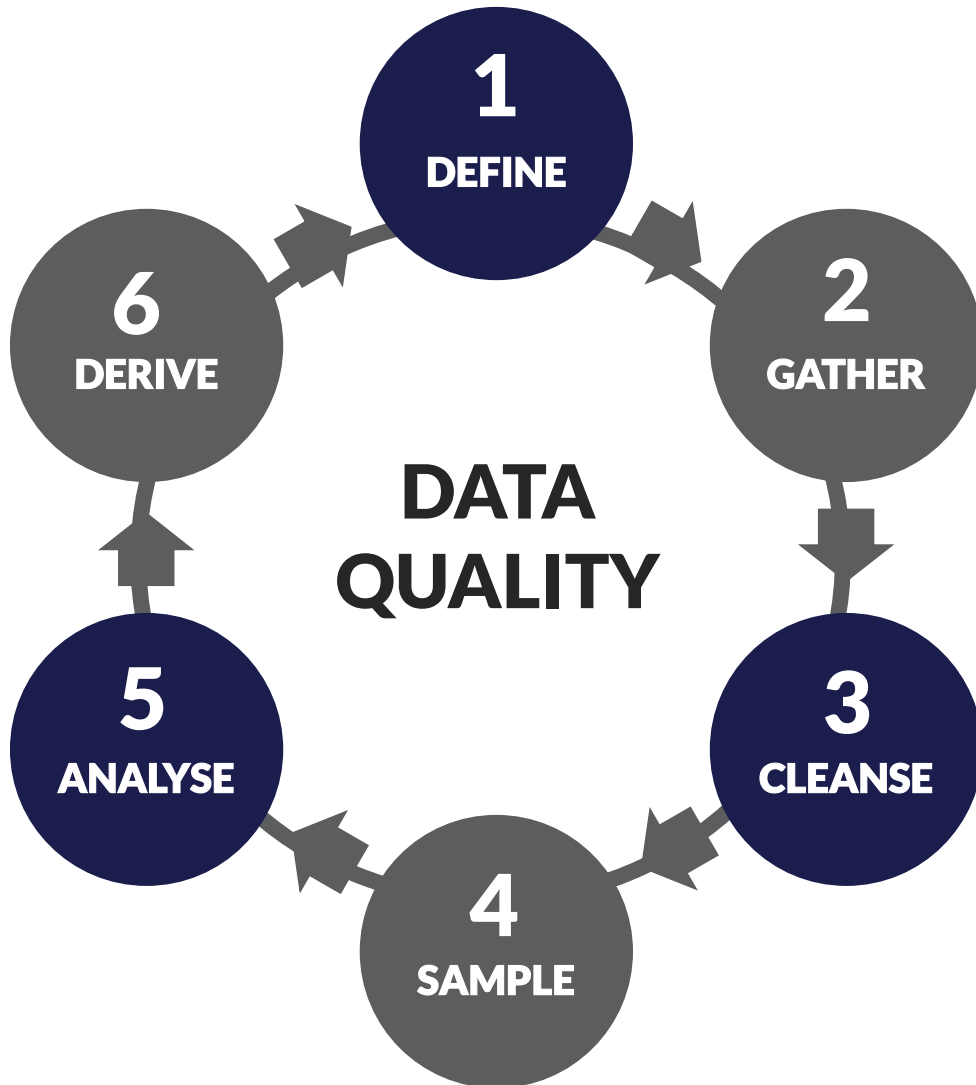
## GATHER

Gather the raw data sets

## CLEANSE

Performed data cleaning and retrieve the clean data

# DATA QUALITY – SIMPLE 6 STEP PROCESS



## **SAMPLE**

Carried out data sampling process

- ☐ One month period
- ☐ Filtered based on nationalities (Local Citizens)
- ☐ Preferred users with multiple visits (>1 visit/mth)

## **ANALYSE**

Performed analysis on the sample data

## **DERIVE**

Derived insights out of the sample data



# FINDINGS

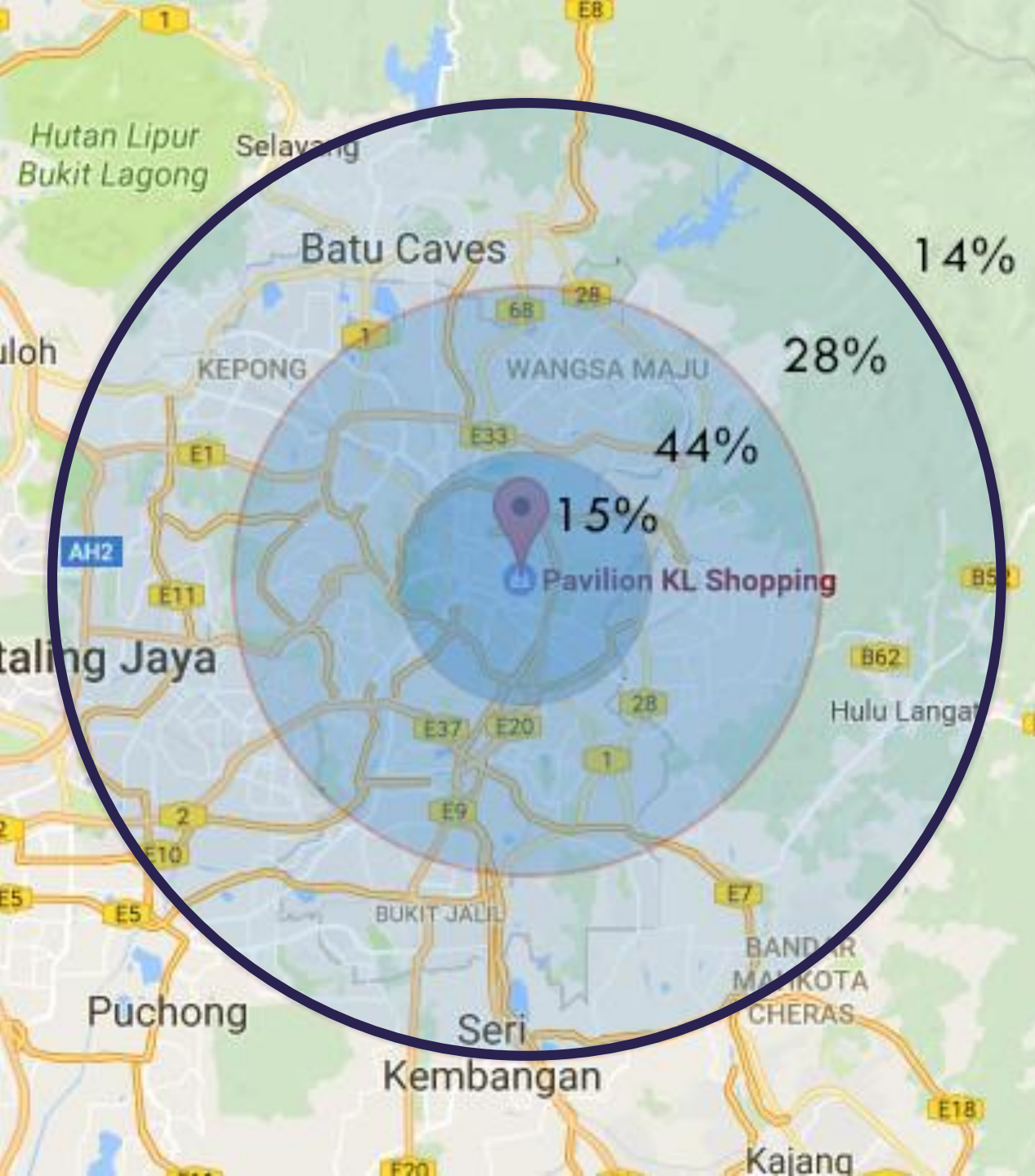
15% were from  
within 5km radius



## FINDINGS

44% were from  
within 5km – 10km  
radius





## FINDINGS

**28% were from  
within 10km - 15km  
radius**



# MOBILE LOCATION DATA IN RETAIL

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# RECOMMENDATIONS



## **Target**

People within  
close proximity  
to the mall



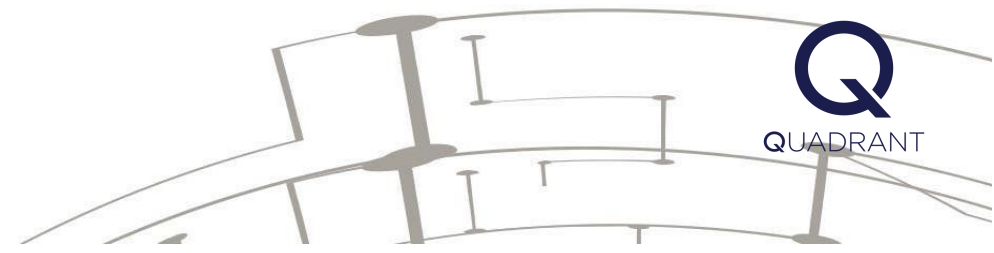
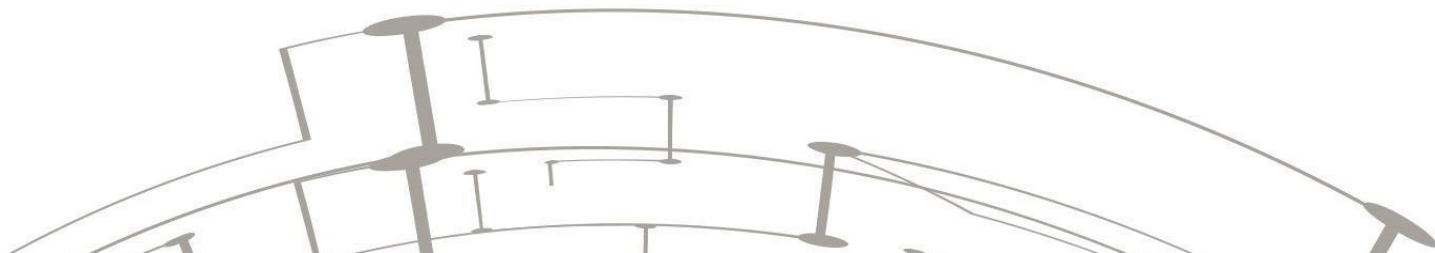
## **Focus on the 10km belt**

Based on the  
analysis, 60% of  
total visitors comes  
from less than  
10km radius



## **Target easily**

Easier target for the  
mall in order to  
increase visitation  
rate







# **MOBILE LOCATION DATA IN FINANCIAL SERVICES**

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# INDUSTRY USE



**ENTERPRISE SOLUTIONS**

**CONSUMER SOLUTIONS**





## BUSINESS CHALLENGE

# **OPTIMISE ATM LOCATIONS**





# METHODOLOGY

## STEP ONE



**Define**  
the sub-region  
for the analysis  
based on the  
busiest area

## STEP TWO



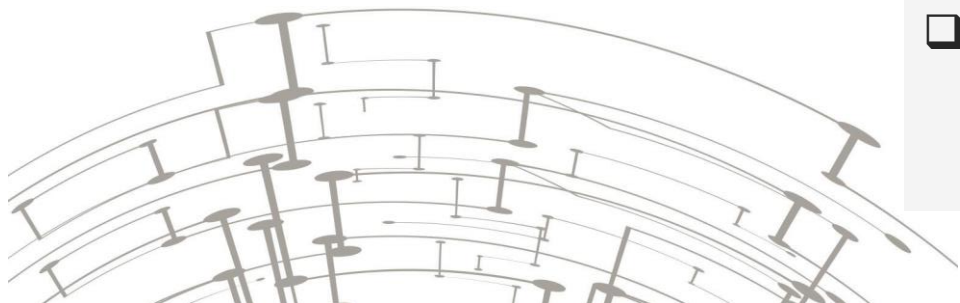
**Filter** dataset  
based on the  
following criteria

- ☐ People in Downtown LA who are not overseas tourists
- ☐ Identified ATM locations in Downtown LA
- ☐ People who spends more than 30 seconds near these locations

## STEP THREE



**Analyse** the  
heatmap





# **MOBILE LOCATION DATA IN FINANCIAL SERVICES**

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# DATA QUALITY – SIMPLE 6 STEP PROCESS



## DEFINE DATA REQUIREMENTS

Define data requirements for business goals achievements

## GATHER

Gather the raw data sets

## CLEANSE

Performed data cleaning and retrieve the clean data

# DATA QUALITY – SIMPLE 6 STEP PROCESS



## **SAMPLE**

Carried out data sampling process

- ☐ People in Downtown LA who are not overseas tourists
- ☐ Identified ATM locations in Downtown LA
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## **ANALYSE**

Performed analysis on the sample data

## **DERIVE**

Derived insights out of the sample data

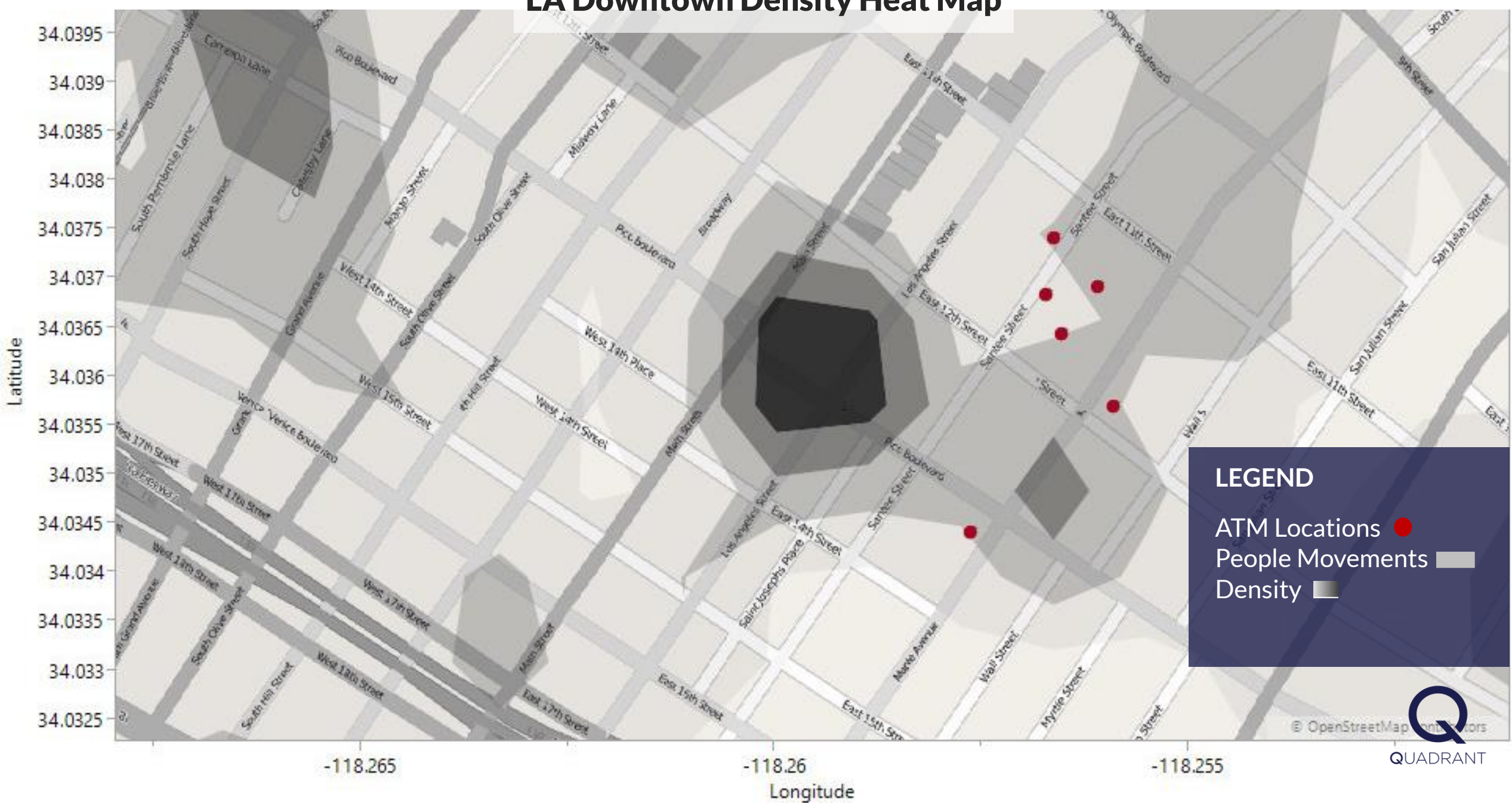


# LA Downtown Density Heat Map

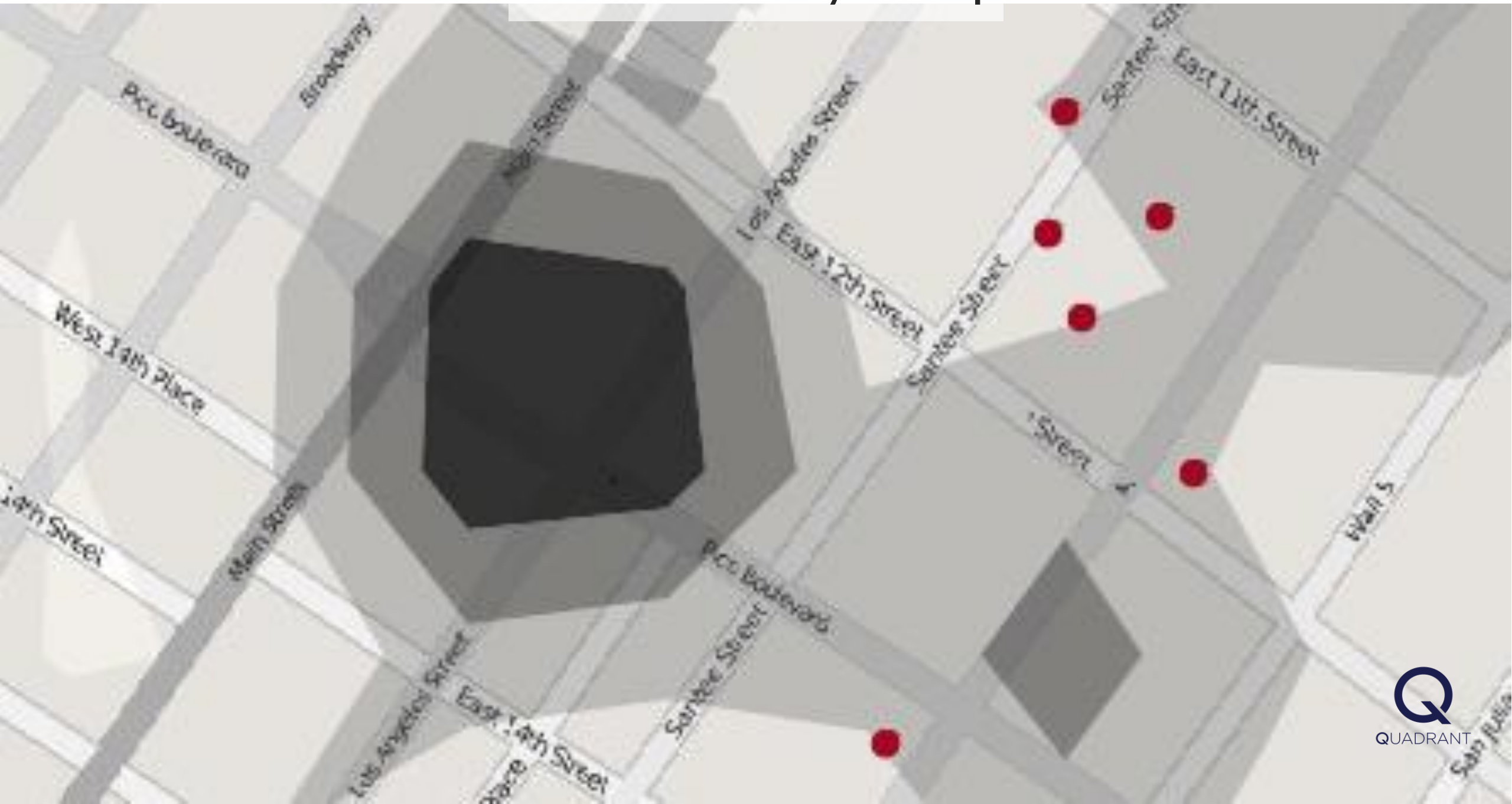




# LA Downtown Density Heat Map



## LA Downtown Density Heat Map







# **MOBILE LOCATION DATA IN FINANCIAL SERVICES**

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# RECOMMENDATIONS



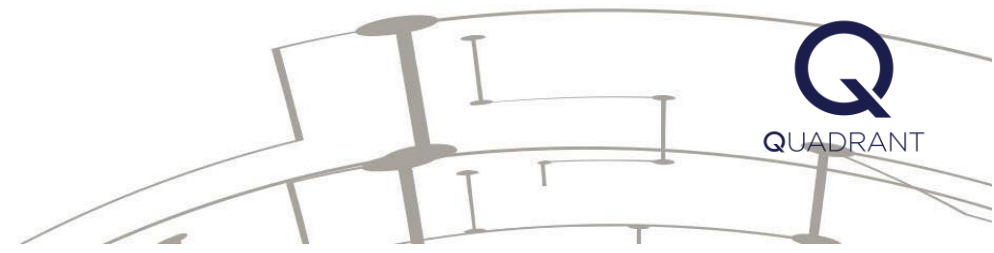
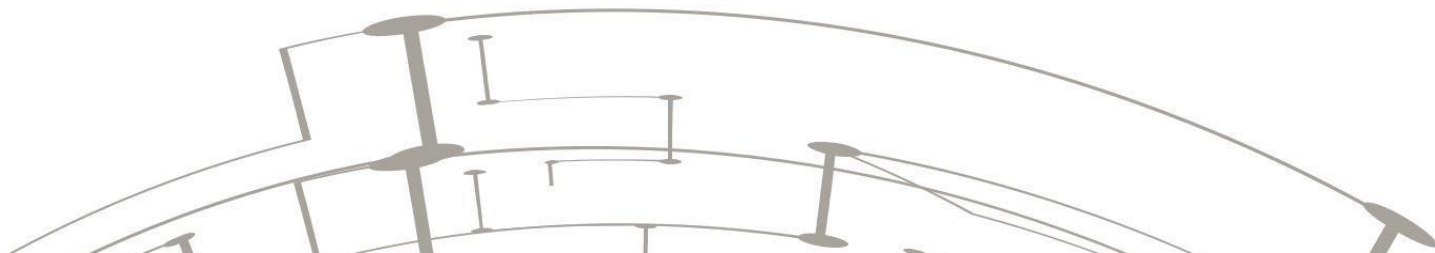
## **Analysed**

And identified the dense location which lacks of ATMs



## **Recommended**

To install ATM machines located within 200m – 300m at the identified area





# **MOBILE LOCATION DATA IN FINANCIAL SERVICES**

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**Bank of America**



**BUSINESS CHALLENGE**

**INCREASE SIGN UP  
OF FREQUENT  
BUSINESS  
TRAVELERS**



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# METHODOLOGY

## STEP ONE



### **Researched**

To determine the airports in the U.S with high frequency travelers

## STEP TWO



### **Filter** dataset based on the following criteria

- ☐ People spotted in LA Airport on October 2016 (based on 1-month duration)
- ☐ U.S travelers that have gone through LA Airport that uses domestic travel
- ☐ People that appears  $>1 \text{ day} \leq 12 \text{ days}$  in LA Airport

## STEP THREE



**Analyse** the proportion of the distinct travelers from different cities



# **MOBILE LOCATION DATA IN FINANCIAL SERVICES**

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# DATA QUALITY – SIMPLE 6 STEP PROCESS



## DEFINE DATA REQUIREMENTS

Define data requirements for business goals achievements

## GATHER

Gather the raw data sets

## CLEANSE

Performed data cleaning and retrieve the clean data



# DATA QUALITY – SIMPLE 6 STEP PROCESS



## **SAMPLE**

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## **ANALYSE**

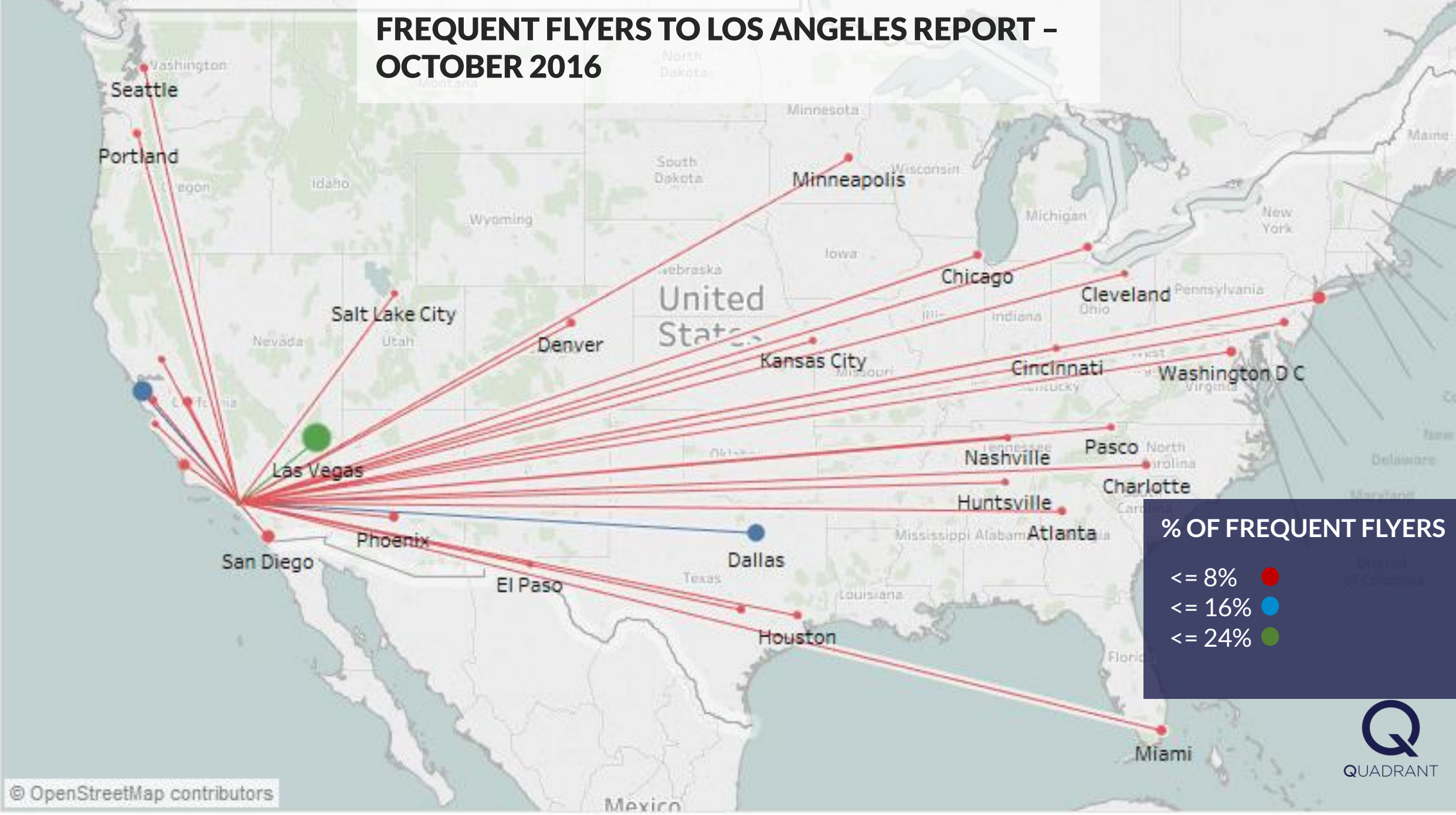
Performed analysis on the sample data

## **DERIVE**

Derived insights out of the sample data



# FREQUENT FLYERS TO LOS ANGELES REPORT - OCTOBER 2016



## FREQUENT FLYERS TO LOS ANGELES REPORT - OCTOBER 2016

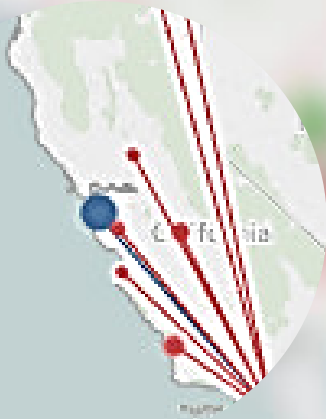


% OF FREQUENT FLYERS  
FROM LAS VEGAS

$\leq 24\%$  ●



# FREQUENT FLYERS TO LOS ANGELES REPORT - OCTOBER 2016



**% OF FREQUENT FLYERS  
FROM SAN FRANCISCO**

**$\leq 16\%$**  ●

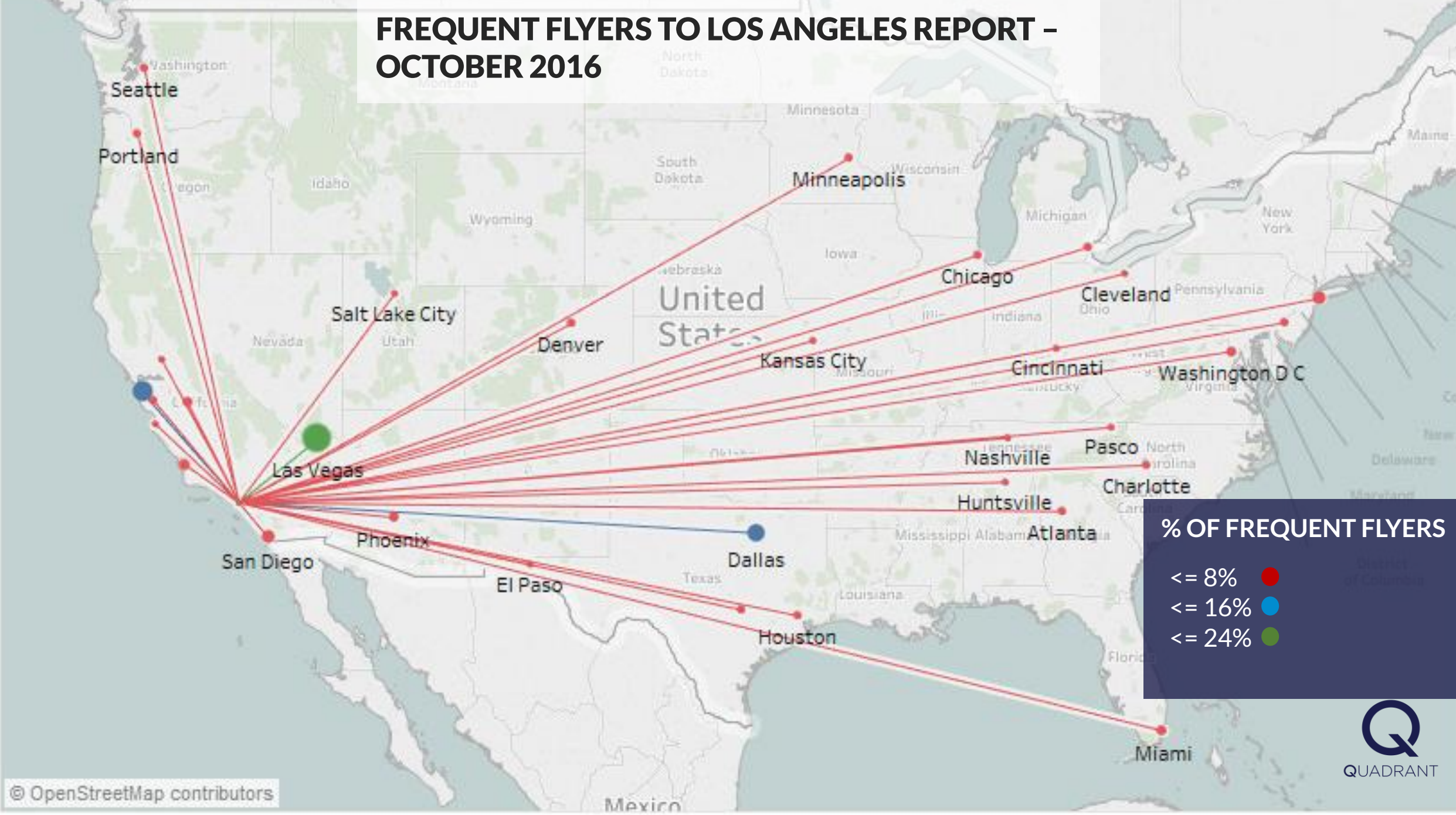
# FREQUENT FLYERS TO LOS ANGELES REPORT - OCTOBER 2016



% OF FREQUENT FLYERS  
FROM DALLAS

$\leq 8.5\%$  ●

# FREQUENT FLYERS TO LOS ANGELES REPORT - OCTOBER 2016





# RECOMMENDATIONS



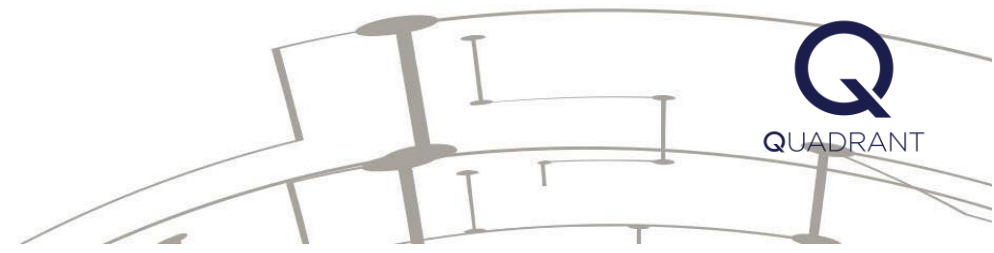
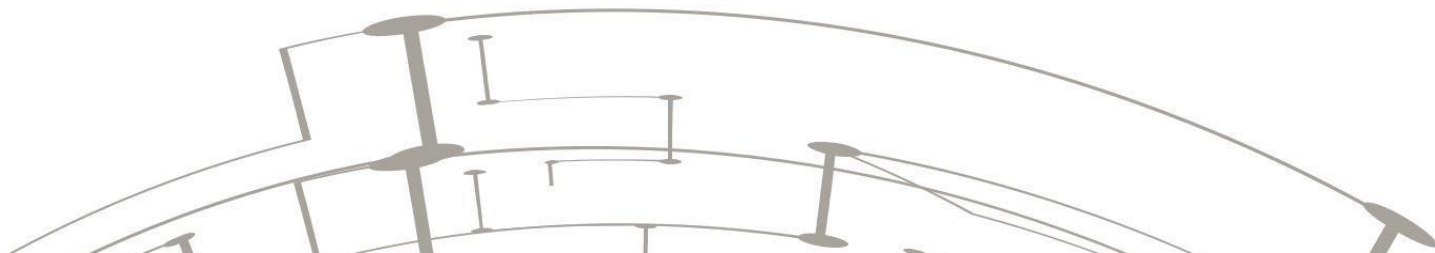
**Carry Out**  
**Targeted advertising**  
**campaigns at LA**  
**Airport to engage**  
**with frequent flyers**  
**from Las Vegas, San**  
**Francisco and Dallas**



**Carry Out**  
**Point of Sale**  
**Promotions at**  
**identified airports**  
**check-in gates to have**  
**direct engagement with**  
**the frequent flyers**



**Target Marketing**  
**Communications**  
**and increase level of**  
**engagement with**  
**targeted audience**



# RECOMMENDATIONS



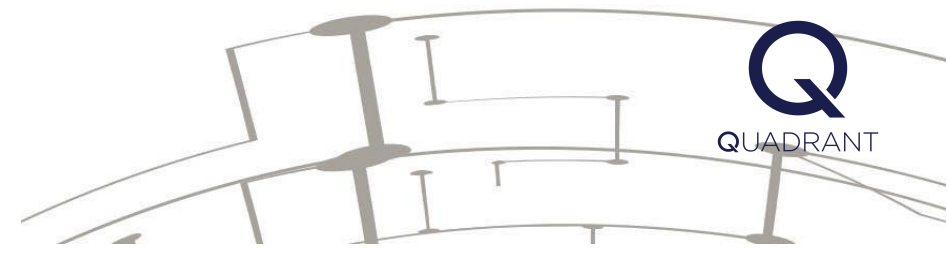
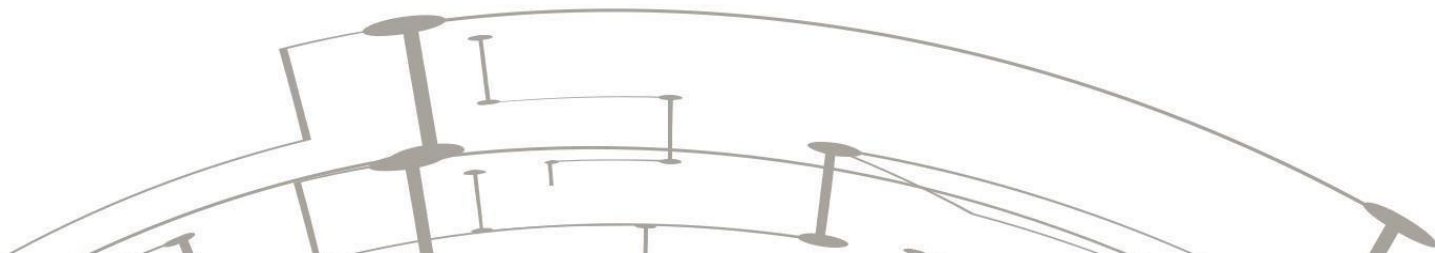
**Improves** relevance  
of ad messages



**Increase** level of  
engagement with  
targeted audience



**Communicate efficiently  
and effectively** with end  
user through targeted ad  
campaigns instead of  
investing on common ads  
across multiple airports





## **MAKING RIGHT DECISIONS WITH THE RIGHT DATA**

For businesses, location data is the key to success. In the desert there is a saying: water is life. For many enterprise businesses, the saying should be that data is life. Data is essential to helping organizations identify the habits, needs, and wants of their customers and potential customers.



# Quality (and Value) is in the eye of the buyer

What one perceives  
as high-quality  
could be low when  
viewed by the other

Determine the key  
attributes and  
criteria for decision  
making



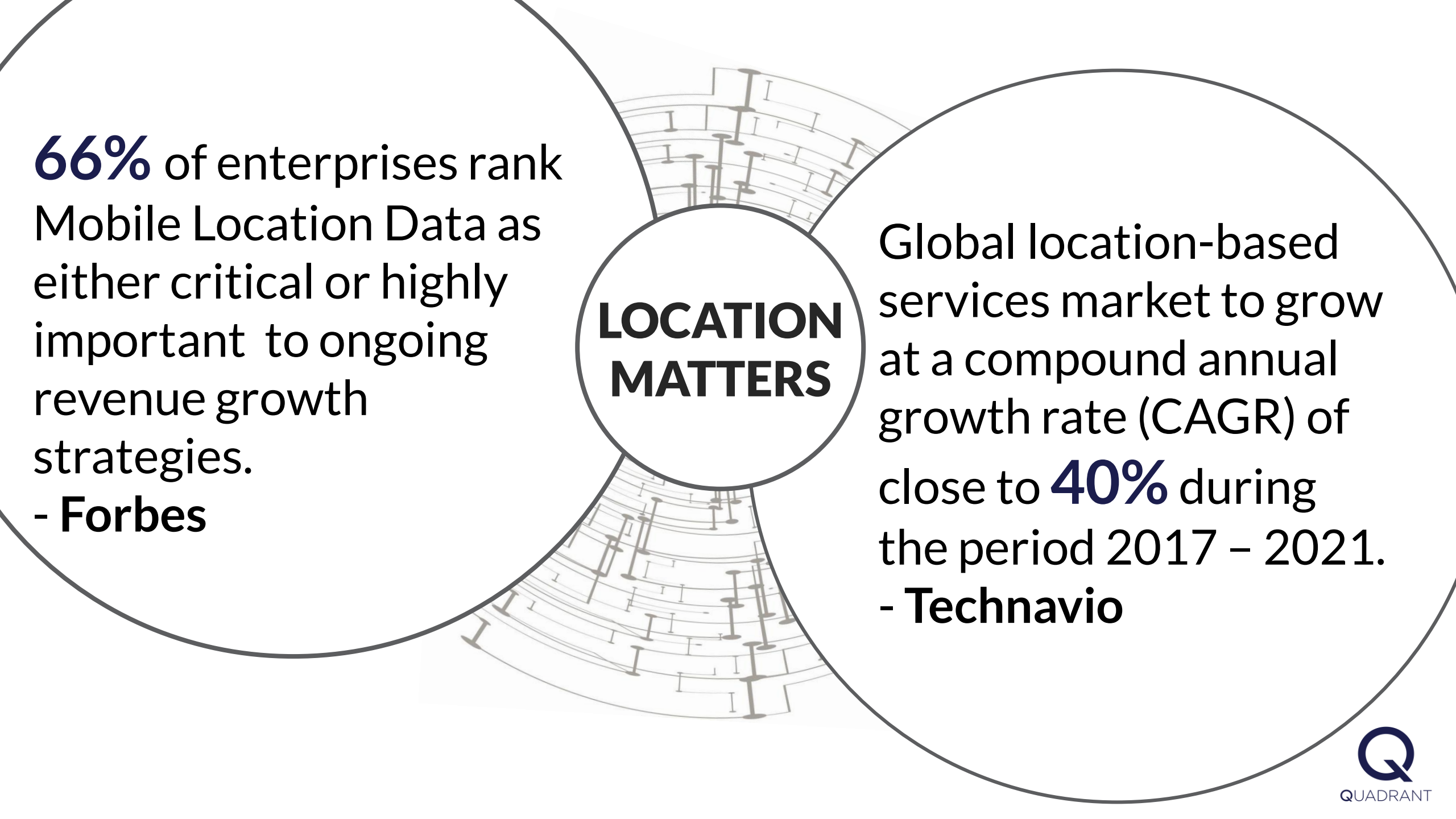
It is not easy, nor feasible,  
for many companies to  
properly evaluate

Test different  
combinations to  
assess optimal quality  
score

Provide buyer with the ability to select key attributes

The background is a collage of images related to technology and music. The top half features several hands holding smartphones, with one screen displaying a music app. The bottom half shows a curved musical staff with notes. A large white circle with a black border is centered over the image, containing the text 'LOCATION MATTERS'.

# **LOCATION MATTERS**



**66%** of enterprises rank Mobile Location Data as either critical or highly important to ongoing revenue growth strategies.

- **Forbes**

## **LOCATION MATTERS**

Global location-based services market to grow at a compound annual growth rate (CAGR) of close to **40%** during the period 2017 – 2021.

- **Technavio**





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**MAKING RIGHT DECISIONS WITH THE RIGHT DATA**

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THANK YOU



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[roger@quadrant.io](mailto:roger@quadrant.io)