



HOTEL H MARKET SEGMENTATION

**YOUNG TALENT
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MEET OUR TEAM



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INDUSTRY OVERVIEW



TOURIST ARRIVALS
2018

▲ 1%

4.5 Million

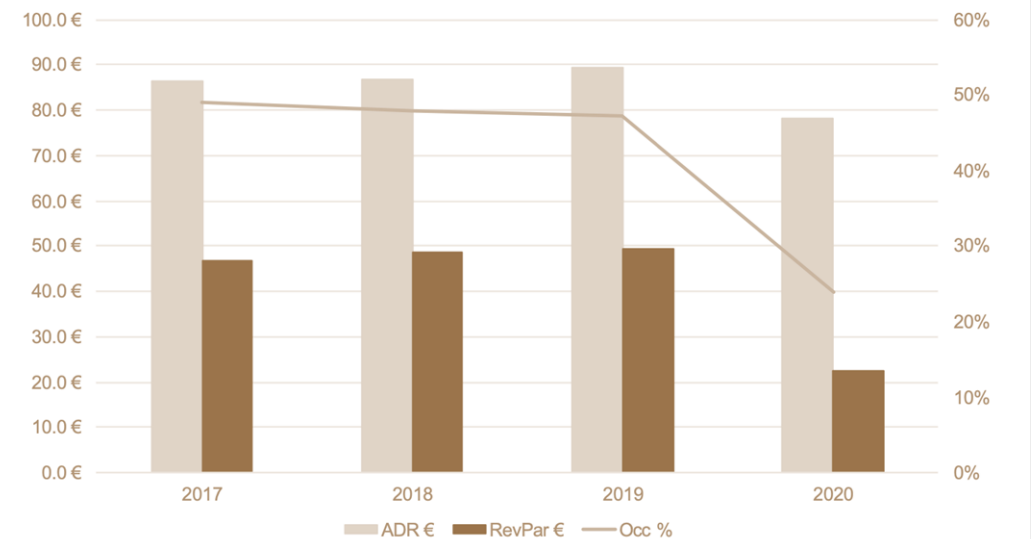


BED NIGHTS
2018

▲ 1%

10.8 Million

KEY KPI's



Source: INE Portugal



BUSINESS OBJECTIVES

02

BUSINESS OBJECTIVES

- Analyse customer data and booking patterns
- Maximize revenue for Hotel H
- Define the new segmentation strategies



DATA UNDERSTANDING

111k
CUSTOMERS

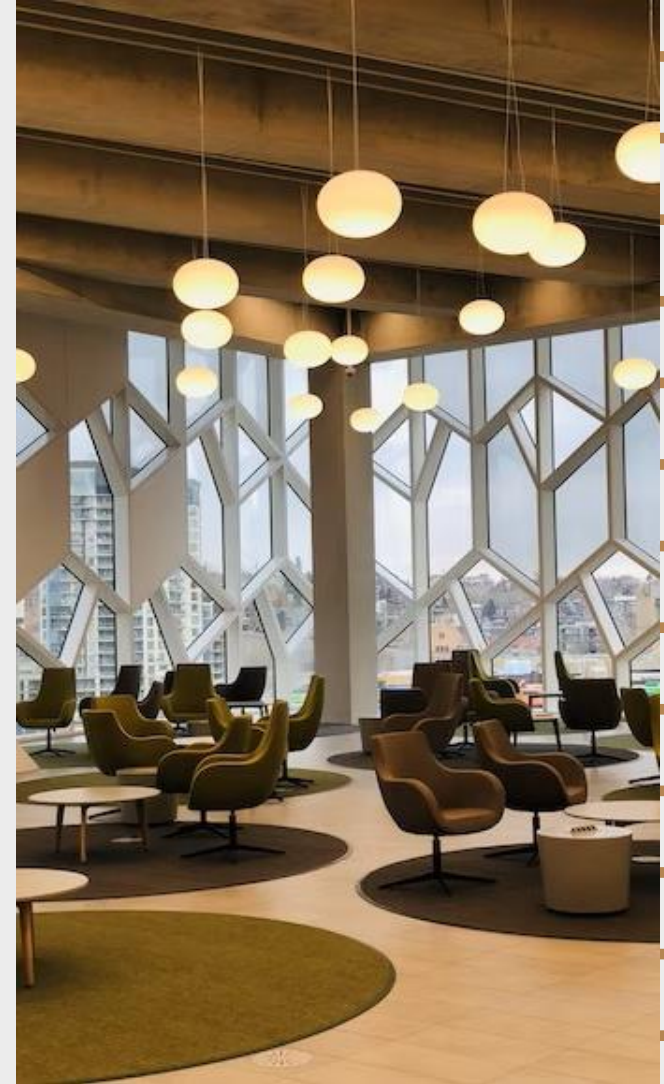
29
VARIABLES



TRAVEL
AGENT/OPERATOR



King-Sized
Bed



DATA PROBLEMS

MISSING VALUES

1

DUPLICATE RECORDS

2

DATA INCONSISTENCIES

3

New Variables

Total Revenue
Booking Rate
Room Rate
Room Type
Floor Preference
Room Preferences
Lead Time Preference
Region

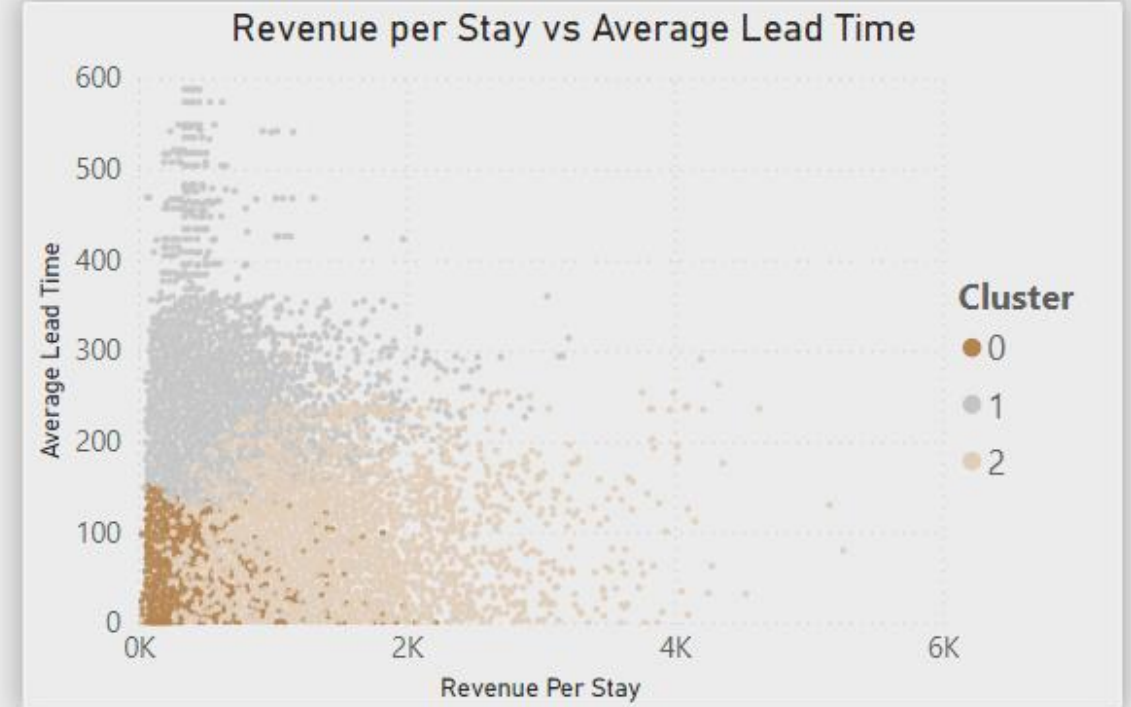
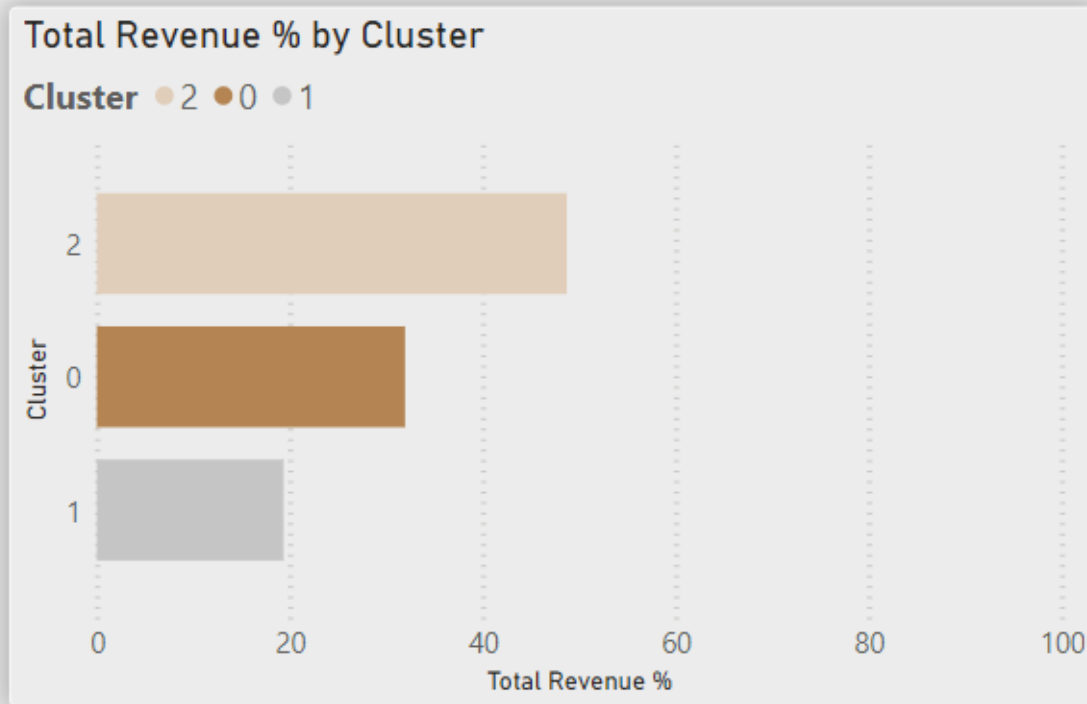
Algorithms Applied

PCA, K-Means, K-Prototypes

Assessment

Cardinality and Magnitude
Silhouette score
Davies-Bouldin score
Calinski-Haraszbasz score

MARKET SEGMENTS OVERVIEW



MARKET SEGMENTS

GEN X CUSTOMERS WITH POTENTIAL FOR FUTURE GROWTH

48.8%

of the
customers

321€

Average
Spending

Western Europe

Generation X

1 Strengthen customer engagement
Offer wider range of activities and benefits

2 Cross selling
Bundled package at a 15% discount rate.

MARKET SEGMENTS

BABY BOOMER CUSTOMERS WITH HIGH HIGH AVERAGE LEAD TIME

30.1%

of the
customers

227

Average
Lead Time

Travel agents

Baby Boomer

1 Partnerships with events
Promote the hotel, special price nights discounts

2 Premium Service
Welcome gifts, personalized recommendations

MARKET SEGMENTS

BABY BOOMER CUSTOMERS WITH HIGH REVENUE CONTRIBUTION

21.1%

of the
customers

774€

Revenue per
stay

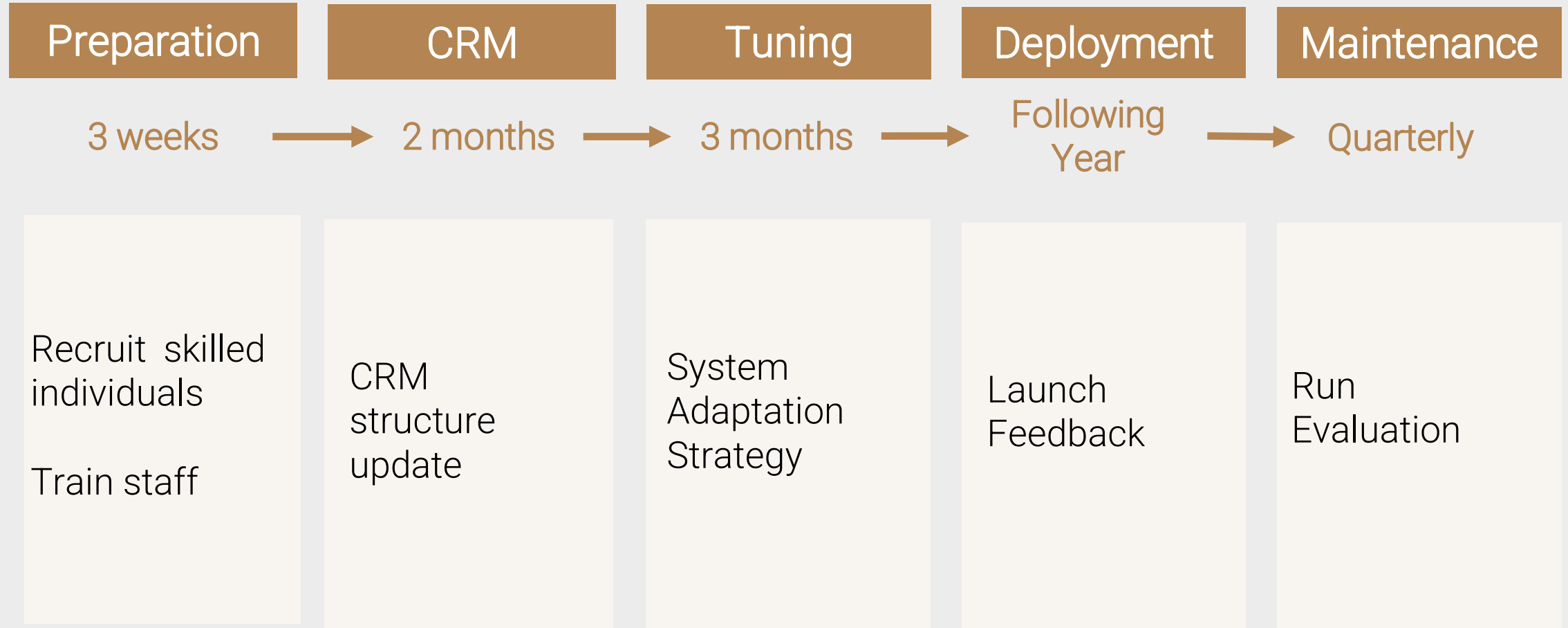
Highest Room Nights

Highest Nr of Check-In

1 Partnerships with health and wellness brands

2 Customer Retention
Loyalty programs and initiatives

DEPLOYMENT PLAN - OVERVIEW



CONSIDERATIONS FOR MODEL IMPROVEMENT

DATABASE MODELING AND
MANAGEMENT

1

HOTEL LOCATION

2

CUSTOMER REVIEWS

3

CONSIDERATIONS FOR MODEL IMPROVEMENT

TIMING
OF BOOKINGS

4

WEATHER, ECONOMIC AND
COMPETITORS DATA

5

TEST DENSITY
BASED ALGORITHMS

6