

# Geo-mapping model

### Prestige beauty brand

Developed Retail Store expansion strategy to identify new regional opportunities for opening additional brick-and-mortar locations based on sales potential

### Prestige beauty brand company needs geo-mapping model

#### Picture this...

You're looking for sales performance using a Regression model which factored Household income, Population density, Competitors store count & Affinity brands store count as independent variables

#### You turn to Accordion.

We partner with your team to develop a retail store expansion strategy to identify new regional opportunities for opening additional brick-and-mortar locations based on sales potential, including:

- 1) Leveraging UI path automation for collating latitude/longitude details of Competitor and Affinity brand stores from Google Maps for visual appreciation
- 2) Collecting reliable data from UK Govt website to assess impact of income potential, area (sq. km) and population of the region towards Sales of a store
- 3) Developing Regression model in Power BI post segregating Client's existing Stores data into training and testing datasets and evaluated performance of the model based on Coefficient of Determination and Root Mean Square Error
- Generating proposed opportunities for Stores expansion based on estimated Sales from Regression model by leveraging Household income, Population density, Competitors & Affinity brands store count

### Your value is enhanced.

You have £ 2.2 million annual sales increment expected from a total of 33 prime opportunity recommendations for opening new stores across UK Region. You also have increased 19% in brand's market share expected across UK region from prime opportunity recommendations.

#### **GEO-MAPPING MODEL**

#### **KEY RESULT**

 £ 2.2 Million Annual Sales increment

#### **VALUE LEVERS PULLED**

- Location mapping in PBT
- Regression model
- · Web Scraping

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## Geo-mapping model for Prestige beauty brand

#### Situation

- Client faced a critical challenge for Store Expansion Strategy for their flagship Fragrance brand, as the strategy required to ascertain the presence of Competitor stores and Affinity stores in regions and cities to maximize Sales potential
- Merilytics partnered with Client to estimate Sales performance using a Regression model which factored Household income, Population density, Competitors store count & Affinity brands store count as independent variables

#### Accordion Value Add

- Leveraged UI path automation for collating latitude/longitude details of Competitor and Affinity brand stores from Google Maps for visual appreciation
- Collected reliable data from UK Govt website to assess impact of income potential, area (sq. km) and population of the region towards Sales of a store
- Developed Regression model in Power BI post segregating Client's existing Stores data into training and testing datasets and evaluated performance of the model based on Coefficient of Determination and Root Mean Square Error
- Generated proposed opportunities for Stores expansion based on estimated Sales from Regression model by leveraging Household income, Population density, Competitors & Affinity brands store count

#### Impact

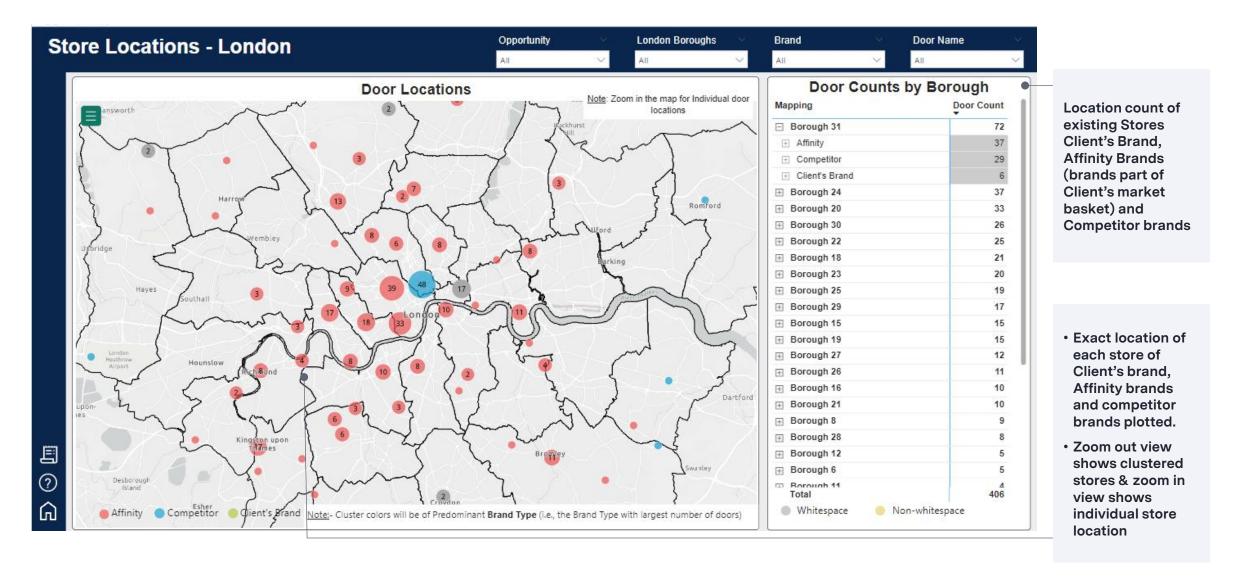
- £ 2.2 Million Annual Sales increment expected from a total of 33 Prime Opportunity recommendations for opening new stores across UK Region
- 19% increase in Brand's market share expected across UK Region from Prime Opportunity recommendations

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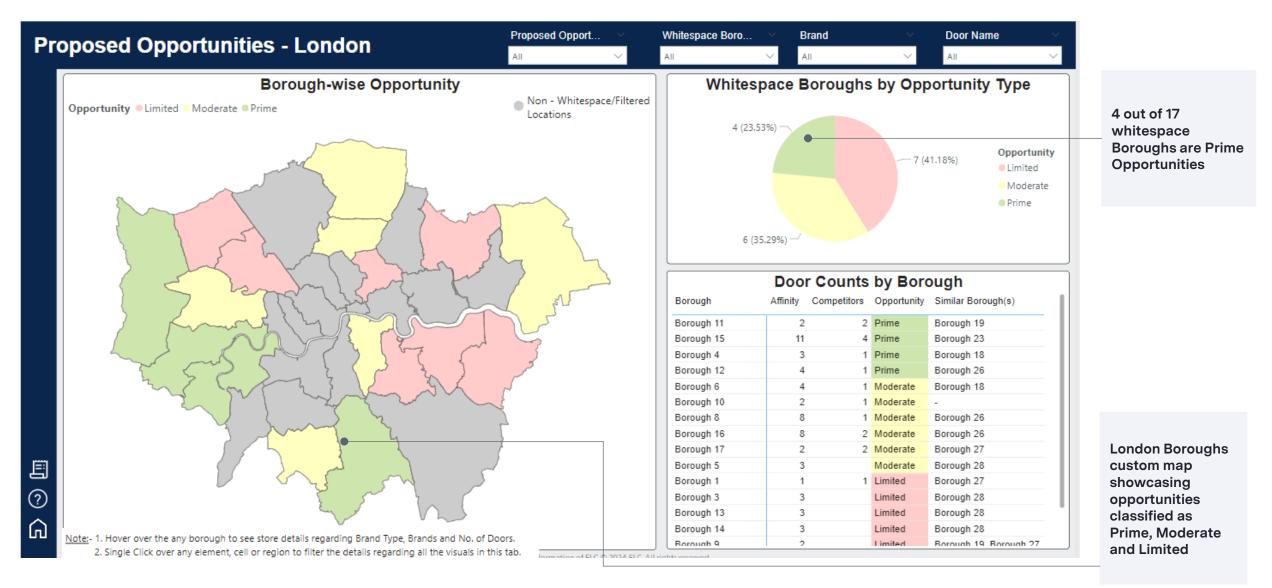
# Methodology/Approach

### MODEL APPROACH 0004 Collation of Competitor and Affinity Brands Stores location details for London Boroughs and UK cities from official websites and open source using UI path automation Collation of Gross Disposable Household Income (per capita), Population and Area details for London Boroughs from UK Govt. ONS website **Data Extraction And Exploratory Data Analysis** Understanding the collinearity amongst the independent variables and assessing the correlation of independent variables with dependent variable Splitting existing Client Stores dataset into training and testing sets to train and evaluate the model's performance Analyze Regression output using Root mean squared error and R squared values **Building Regression** Model Optimization of Regression model by removing outliers and tracking improvement in model accuracy Apply Regression model for whitespaces locations for identifying opportunities Whitespace **Opportunities** Categorize the opportunities for whitespaces based on predetermined expected sales threshold

# Store locations for client, competitors and affinity brands



## Proposed opportunities for client's new stores



# Learnings

- 1) The team has leveraged UI path automation to extract stores address information for Competitor and Affinity brands from respective websites and pulled latitude/ longitude details from Google maps.
- 2) The team has explored multiple map visuals in Power BI with unique features ranging from Azure Maps to Custom Maps to showcase the presence of existing and proposed stores across UK region.
- 3) The team has built sufficient knowledge base while developing regression model in Power BI and has benefitted from internal discussions with DS team to understand the data collinearity and steps to optimize the model.
- 4) The team has undertaken extensive data exploration for collating information about competitor and affinity brands for Client's brand which will be fruitful while scaling up the model.

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